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**THE MODERATING EFFECT OF CULTURE ON COGNITIVE
RESPONDING MECHANISMS TOWARD ADVERTISING
MESSAGE SIDEDNESS**

Roy Toffoli

**A Thesis
in
The Faculty
of
Commerce and Administration**

**Presented in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy at
Concordia University
Montreal, Quebec, Canada**

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ABSTRACT**The Moderating Effect of Culture on Cognitive
Responding Mechanisms Toward Advertising
Message Sidedness**

Roy Toffoli, Ph.D.
Concordia University, 1997

The research reported herein examines the two-sided versus one-sided advertising strategy from a cross-cultural perspective. It aims to help clarify conflicting findings in cross-cultural research with this form of appeal, as well as develop a model of the moderating effect of culture on the underlying mediational processes, namely, the formation of correspondent inferences and cognitive responding. A number of hypotheses are generated to explicitly examine the relationship between the cultural dimension of individualism-collectivism and dispositional attributions, source honesty, types of cognitive responses, and attitude toward the brand, following exposure to two-sided versus one-sided messages. An experiment was carried out in which subjects from a collectivist culture, namely, Hong Kong, and subjects from an individualistic culture, namely, Anglo Canadians, were exposed to one-sided and two-sided messages in their native languages. The results of the research indicate that there are significant interactions with respect to certain of the cognitive responses generated as well as a significant main effect of culture on the formation of dispositional attributions. From the point of view of the favorability of the cognitive responses generated, the findings point to two-sided advertisements as being more effective than their one-sided counterparts for individualists; while the reverse occurred with the collectivist subjects. Directional support

was also obtained with respect to attitude toward the primary attribute and attitude toward the brand. The primary implication is that the two-sided message strategy is more applicable for individualist societies such as mainstream North America, but it may be counterproductive if exported to collectivists societies such as China or Japan.

**I dedicate this thesis to Adriana, Carla, and Daniela
and
to the memory of my parents**

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CHAPTER 1

INTRODUCTION

1.1 Objectives of the Research

A great deal of research has been carried out on the various brand persuasion processes that occur within a particular culture, most notably the American culture. However, relatively little theoretical and empirical work has been done in the cross-cultural advertising context. For instance, the only major studies which tested persuasion models adapted to a cross-cultural perspective were those by Lorimor (1966) and Tamilia (1977). Both of these studies were primarily focused on source effects on a cross-cultural advertising context. The first one examined the effects of reference group membership, levels of translation, and direct attribution of the message to the source on attitude change resulting from cross-cultural persuasive messages. While the second one "analyzed from an information processing perspective the process by which consumers from different cultural backgrounds perceive and react to selected attributes possessed by the source" (1977, p.9). One of the aims of the second study was also to determine if cultural groups differed in their responses to source cues as opposed to message cues.

Given the increasing globalization of business, there is an important need for cross-cultural persuasion models to provide insight on how consumers from different cultures perceive and react to different communication factors (i.e., characteristics of the source, the

message, the medium, and context). This importance is also revealed in the growing interest in this area (see, for e.g., Han, 1990; Kale, 1991). However, studies of complex psychological processes across cultures are fraught with difficulties - as testified by the paucity of work in this area. In order to make any sort of contribution in this field, one has to take a highly focused approach to the subject matter. To this end, a number of factors have helped to circumscribe the research topic of this paper: The object of the advertising appeal, the level of receiver involvement, the possible contribution to the literature, the communication strategy, and the cultural groups.

First of all, since persuasion research covers such a wide field - from psychological warfare to the marketing of social ideas, the focus will be on persuasion in a brand advertising context.

The second criteria arises from the general nature of the persuasion process. It is now a fairly well established fact that there are different "routes" to persuasion depending upon the level of involvement or motivation of the recipients. The processes (and research methodology) which apply at low levels of motivation tend to be quite different from those which apply at higher levels. Therefore, to allow for a sufficient depth of analysis, it is necessary to concentrate on a specific portion of the persuasion "continuum." For reasons to be explained in the following section, this paper will focus on the processes which are believed to occur in moderate to high levels of motivation to process brand information.

The third guiding rule was dictated by the previous research on cross-cultural persuasion. Both Lorimor and Tamilia concentrated on source effects. To the best of the present author's knowledge, no cross-cultural model of *message-form* effects has been

developed. The only other major cross-cultural advertising study dealing with message content has been by Han (1990). It used a content analysis approach to test for the effect of cultural variability on preference for certain types of advertisements over others. The present study takes more of a micro perspective, and examines cultural effects on subjects' cognitive and affective reactions to different message strategies. Hence, this study hopes to derive at least a partial model of message-form effects across cultures, in order to complement the previous work. This germinal effort will help set the stage for an eventual integrative effort which would include the four principal communication elements.

A fourth guiding principle springs from a review of the literature on cross-cultural studies on the relative effectiveness of two-sided versus one-sided advertising appeals: What little has been done, appears to be conflicting. Since the study of such appeals is representative of work done with message effects, the model developed should also shed some light on the operation of other message content and structural factors such as message complexity, the drawing of conclusions, comparative messages, repetition effects, etc. Moreover, this message strategy is important in its own right. Although at first glance the effects of message sidedness may be considered small in comparison to other message content and structural strategies, the fact that it operates in an advertising setting where cumulative effects are assumed, means that this small effect size becomes important (Abelson, 1985; cited in Allen, 1991). Also, since it is a relatively novel approach in advertising it has the potential to generate considerable impact (see Assael, 1983; Mowen, 1990).

Two cultural groups, namely, Anglo Canadians, and Hong Kong Chinese, will be selected for this study based on their ranking on the dimension of individualism-collectivism. As this thesis will attempt to show, this dimension influences the formation of dispositional attributions and cognitive responses - processes underlying the reception and interpretation of two-sided appeals. The two cultures chosen are polar opposites on this dimension: the Anglo Canadians being at the individualist end of the continuum, while the Hong Kong Chinese are at the collectivist end.

In sum, this study attempts to develop a partial model of "message-based persuasion" (MacInnis and Jaworski, 1989) by focusing on a typical message design strategy, namely, two-sided versus one-sided appeals.

Although the main thrust of this study is to examine the role of culture on the processes mediating two-sided advertisements, this thesis also has a number of subsidiary objectives. First of all, the cross-cultural approach will permit a more stringent test of the validity of the mediating mechanisms underlying the relative effectiveness of two-versus one-sided messages. These mechanisms are based on correspondent inference and cognitive response theories, and were originally developed in a U.S. setting. Another objective, is to examine the possible role of individual difference variables in moderating the effectiveness of two-sided messages (see, for e.g., Hale, Mongeau, and Thomas, 1991).

The approach taken in this study was inspired by some of the work by Eagly (1981) on the impact of recipient characteristics on response to persuasion. She noted, for instance, that researchers have used three general strategies for understanding the effects of recipient predispositions:

- 1- *The personality strategy.* In this approach, the researcher refers to a personality theory for inspiration for *both* a personality trait that may affect attitude change, and the mechanism through which the trait influences persuasion. Theories of attitude change are not considered. One example of this research approach has been the work examining the effects of Rotter's (1966) internal/ external locus of control construct on the persuasibility of the message recipient.
- 2- *The attitude change strategy.* In this approach, an attitude theory is called upon to suggest both structural, or process dimensions along which individuals differ, as well as a mechanism by which the variable can account for differential reactions of message receivers to persuasive attempts. In effect, this looks at the persuasion theory's implications for individual differences. The personality variables emanating from the personality theories are not considered in this approach. Recipients' characteristics are formulated directly in terms given by an attitude theory. The example Eagly (1981) provides is the notion of involvement originating from Sherif's social judgment theory.
- 3- *The personality-attitude change strategy.* This approach essentially combines the two prior approaches: It draws upon a personality theory as a source of suggestions concerning relevant traits, but invokes attitude theory to specify the mechanisms by which such traits affect attitude change.

The present study comes closest to the third approach. It invokes the mechanisms which are known to mediate the processing of two-sided advertisements, and then borrows from cross-cultural psychology and anthropology, dimensions of cultural variability which can moderate the mediating mechanisms.

In order to apply what Eagly (1981) termed the "Personality - Attitude Change Strategy," it will first be necessary to understand how two-sided messages operate; specifically, it will be necessary to identify the mediating processes. This will be the topic of Chapter 2. Since these processes are intimately tied to the various process theories of attitude change, it will also be necessary to review these theories with a view to establish their validity. These will be covered in Chapters 3 and 4. While examining the various theories, the key processes will be "teased apart" to enable us to identify the "leverage points" where culture can exert its effect. Chapter 5 will delve in greater detail into culture's effects on information processing. It will examine the existing literature and propose mechanisms through which the dimensions of cultural variability, notably individualism-collectivism, influence the previously identified mediators of persuasion. Chapter 6 describes an integrative model of the effects of culture on the processing of two- versus one-sided messages and proposes a number of research hypotheses. Chapter 7 presents the methodology used to test the various hypotheses. Chapter 8 presents the experimental findings and interpretation of the results. Finally, Chapter 9 concludes and looks at the implications of the research and future directions.

The next section attempts to position the present research within the context of brand attitude formation processes. It examines the differences between persuasion as seen from a social psychological perspective, and persuasion seen from a commercial point of view. It also

provides the rationale for concentrating on intermediate levels of brand processing; more specifically, the zone where "message-based persuasion" (MacInnis and Jaworski, 1989) is thought to occur.

1.2 Theories of Persuasion

Persuasion as occurs in advertising is a highly complex phenomenon. No unifying theory has been developed to explain the myriad forces at work and the various cognitive and affective changes. However, numerous paradigms and accompanying theories have been developed, in part due to the fascination of the subject matter and the potential for rapid financial gains to be obtained from mastering the techniques of influencing people. Most advertising theories originated from social psychological research on persuasion and attitude change. However, the situation found in advertising differs considerably from the typical social psychological experiment. For instance, in the former, expectations with respect to the source will differ on account of the commercial nature of the message. There is also a much greater creative input into the message execution with the result that ancillary feelings and moods are created toward the ad itself. To explain and account for these effects, researchers have developed theories on mood (Gardner, 1985; Srull, 1983), attitude toward the ad (MacKenzie, Lutz, and Belch, 1986; Mitchell and Olson, 1981) and other theories specific to advertising.

In order to link these various streams of research into coherent "models" several researchers have developed integrative frameworks of brand attitude formation processes.

These frameworks will serve as a kind of roadmap to the various processes at work under different levels of involvement.

The specific processes thought to operate under moderate to high levels of involvement will also be reviewed in this section. The aim is to assess their validity and their potential for contributing to a cross-cultural model of persuasion.

1.2.1 Integrative Frameworks of Brand Attitude Formation Processes

This section reviews the most important integrative frameworks of *brand attitude formation processes* that have been proposed, namely, the Elaboration Likelihood Model, Mitchell's brand processing model, Greenwald and Leavitt's model, Lutz's typology, and the MacInnis and Jaworski framework.

1.2.1.1 The Elaboration Likelihood Model

The Elaboration Likelihood Model (ELM) (Petty and Cacioppo, 1986) suggested that there are two main routes to persuasion: the central and the peripheral route. The former occurs when processing motivation, ability, and opportunity are each high. In this situation, the authors posited that recipients focus on the points in the message enabling evaluation of the issue involved. In peripheral processing, on the other hand, individuals utilize "peripheral" cues to evaluate the message. The persuasion process in this case is not a "thoughtful" one (Petty and Cacioppo, 1981a; p. 256). Recipients might rely on such cues as communicator attractiveness, the imagery of the persuasion context, a pleasant smell associated with the message (e.g., in an advertisement for a dishwashing liquid) etc.

Another important dual-process theory of attitude formation is the heuristic-systematic model (Chaiken & Eagly, 1983; Chaiken et al., 1989; Eagly and Chaiken, 1993). Because this model resembles the ELM with regards to conceptions of central route persuasion and systematic processing and on the antecedents and consequences of this processing mode (Eagly and Chaiken, 1993) and because its authors consider the model as complementary to the ELM, discussion of the model will be postponed to a later section.

1.2.1.2 Mitchell's Brand Processing Model

The model developed by Mitchell and colleagues (Mitchell, 1980, 1981, 1983; Gardner, Mitchell, and Russo, 1978; Mitchell, Russo, and Gardner, 1980) is similar to the ELM, but is more strongly grounded in theories of information processing. Mitchell named his routes to persuasion "brand versus non-brand processing." His model proposes that needs within the individual's goal hierarchy and the advertisement itself influence involvement which, in turn, influences both the direction of attention and the intensity of processing. The model also recognizes that variables other than involvement, such as prior knowledge or distraction, affect processing (MacInnis and Jaworski, 1989).

Consumers may carry out a brand processing strategy in both a high or low involvement situation. In the former, the process is characterized by a deep processing of brand-related ad information. And the attitudes which are formed are based on the recipients' thoughts about the persuasiveness of the ad information. On the other hand, when the level of motivation is low, recipients activate schema-relevant knowledge, and attempt to comprehend the message on the basis of these cognitive structures. However, insufficient

attention is directed toward the ad to permit a critical analysis of the persuasiveness of the message itself. Instead, attitudes tend to form on the basis of the evaluation of the learned information.

The other type of processing that may occur under conditions of low involvement is the "nonbrand" processing strategy. Although consumers in this mode may capture ad information, it is not translated to any great extent into message-related thoughts. Moreover, these thoughts are not organized coherently. This model also posits that consumers may not form attitudes immediately following exposure, but may form them at a later point in time if needed. Also, ad information learned incidentally influences brand attitudes (MacInnis and Jaworski, 1989).

1.2.1.3 Greenwald and Leavitt's Model

Greenwald and Leavitt (1984) postulated four routes to persuasion instead of the two routes of the ELM. According to MacInnis and Jaworski (1989, p. 16) "Their analysis made the attitude formation processes corresponding to different levels of involvement more precise." They linked the levels of audience involvement to the psychological concepts of variable attentional capacity, levels of processing, qualitatively different representational systems, and (indirectly) arousal. Their four levels of involvement were labeled (in order from low to high) as preattention, focal attention, comprehension, and elaboration. These levels allocate increasing attentional capacity to a message source, as needed for analysis of the message by increasingly abstract - and qualitatively distinct - representational systems. Only at levels three and four, that is, comprehension and elaboration, can message-based attitude

change occur. During "comprehension," however, message-based processing can occur if "the comprehended message effectively associates novel persuasive arguments with an attitude object..." (p.588). The authors point out that "because comprehension does not necessarily integrate message content with other attitude-relevant knowledge, message-based persuasion may become substantial only with repeated comprehension-level processing of the message" (Greenwald & Leavitt, 1984; p. 588). The highest level of processing, on the other hand, "produces substantial freedom of memory and attitude from the specific details of the original message or its setting" (p.588).

1.2.1.4 Lutz's Typology

Basing themselves on an earlier typology of ad-based persuasion processes developed by Lutz (1985), MacKenzie and Lutz (1989) proposed four persuasion processes by considering whether involvement in the message is high versus low and whether involvement in the ad execution is high versus low (MacInnis and Jaworski, 1989). The first, "classic message-based persuasion," is analogous to Petty and Cacioppo's central processing, and takes place when an individual has a high motivation to evaluate the message but a low motivation to evaluate the execution. The ad execution is not found to be processed to any great extent. A_{ad} is not likely to exist or to have an important effect on brand attitudes. When the individual is motivated to evaluate both the message and the execution, "dual mode processing" is said to occur. Brand cognitions result from the processing of the message as with the first process. Processing of the ad, however, has two effects: (1) it causes the consumer's acceptance/ rejection of message claims and (2) it results in ad cognitions. The

two factors then affect brand attitudes through the mediational role of A_{ad} . The third process is referred to as "pure affect transfer." This is found when an individual's motivation to process both the message and the execution is low. Finally, "contextual evaluation transfer" occurs when there is a high motivation to process the execution but a low motivation to process the message.

All of the above models essentially posit that as involvement/motivation increases, the likelihood of occurrence of message-based persuasion increases. Attitude change takes place as a result of the processing of the issues or information provided about the brand.

1.2.1.5 MacInnis and Jaworski's Integrative Framework

In a major integrative effort, MacInnes and Jaworski (1989) have developed a framework which describes with greater precision the attitude formation process. This framework incorporates many of the tenets of the above models and findings from related research streams such as work on the role of emotions, processing antecedents, attitudes toward the ad (A_{ad}), etc. Figure 1.1 and Table 1.1 framework. The pertinent features of the framework will be briefly described.

Figure 1.1
Integrative Attitude Formation Model
(From MacInnis and Jaworski, 1989)

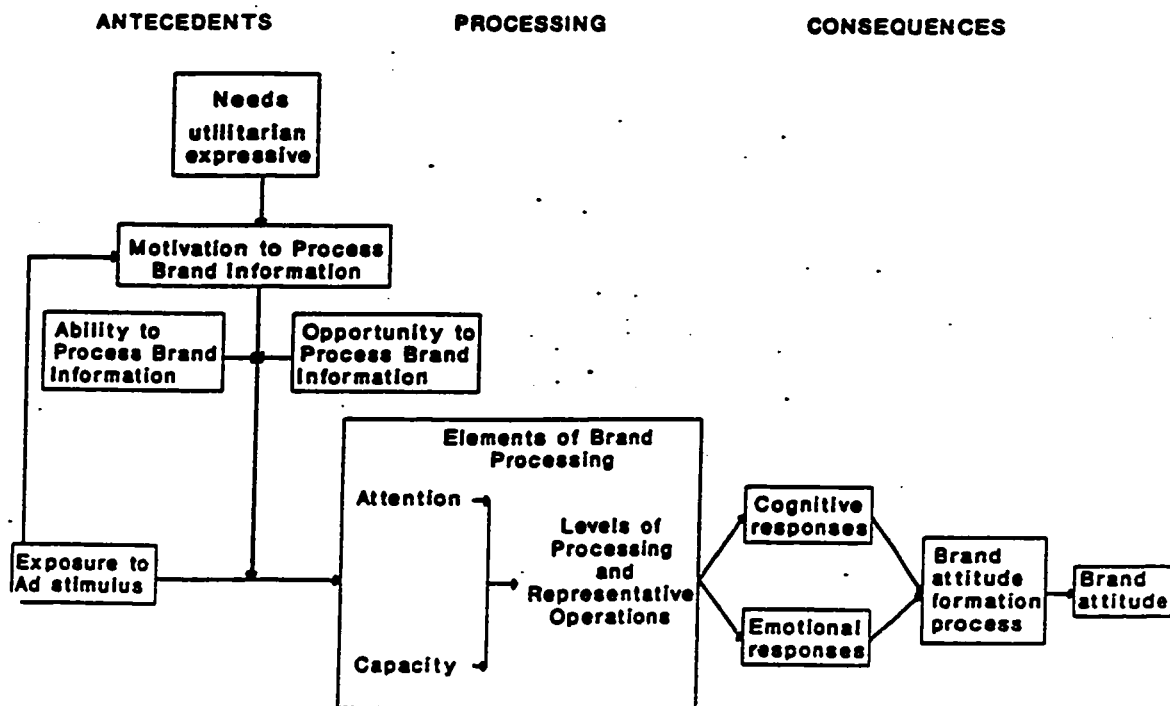


Table 1.1
Antecedents and consequences of Brand Processing
(From MacInnis and Jaworski, 1989)

Antecedents		Processing			Consequences*		
Motivation to Process Brand Information	Attention	Capacity	Level of Processing	Representative Operations	Cognitive Responses ^b	Emotional Responses ^b	Description of A _s Formation Process
Very low	Focused on secondary task	Extremely low	One	Feature analysis	S: cells 5.0, 3.3	S: cells 6.0, 4.3	Mood-generated affect (if prompted)
Low	Attention divided between secondary task and ad	Low	Two	Basic categorization	S: cell 3.1 O: cells 5.0, 3.3	S: cell 4.1 O: cells 6.0, 4.3	Pure affect transfer
Low-moderate	Attention focused on ad	Low-moderate	Three	Meaning analysis	S: cell 1.3 O: cells 3.1, 3.2, 3.3	S: cell 2.3 O: cells 4.1, 4.2, 4.3	Heuristic evaluation
Moderate	Attention focused on ad	Moderate	Four	Information integration	S: cell 1.2 O: cells 3.1, 1.3	S: cell 2.2 O: cells 4.1, 2.3	Message-based persuasion
High	Attention focused on ad	High	Five	Role-taking	S: cell 1.1	S: cell 2.1	Empathy-based persuasion
Highest	Attention focused on ad	Highest	Six	Constructive processes	S: cell 1.1	S: cell 2.1	Self-generated persuasion

*See Table 2 (MacInnis and Jaworski) for a more complete description of the cells.

^bS refers to the strongest predictors/determinants of brand attitudes; O refers to less significant predictors.

This approach proposes six levels of brand processing to capture the increasing levels of brand processing (refer to Table 1.1). Within each level, the authors also proposed a representative type of operation which is thought to occur. The six processing operations are: feature analysis, basic categorization, meaning analysis, information integration, role-taking, and constructive processes (MacInnis and Jaworski, 1989).

In the first two levels of processing, feature analysis and basic categorization, motivation to process brand information is very low. Consequently, attention will be focused on the "secondary task" rather than on the brand information conveyed by the ad. Thus, the recipients will not process brand-relevant information. They will either only process the gross features of the ad - the features that are most prominent, noticeable, or conspicuous - or they may identify salient ad cues. In the latter situation basic categorization occurs "when consumers combine features associated with a specific cue within the ad to perform a categorization judgment and assign a semantic label" (MacInnis and Jaworski, 1989, p.6). In either case, however, no brand-relevant processing occurs. The cognitive responses generated are not based on the message content.

Only when motivation reaches a certain threshold do we see attention being focused at the ad instead of on a secondary task (MacInnis and Jaworski, 1989). In meaning-analysis the recipients are using salient ad cues to "derive some basic understanding of the message" (p.6). The recipients are still focusing on ad cues, but this time they are using them only for a "superficial understanding" of the brand message. Schema knowledge is used to understand brand meaning. The distinguishing feature of this level is the fact that consumers use simple nonanalytical inferences to derive credibility responses (Alba and Hutchison, 1987, as cited in MacInnis and Jaworski, 1989).

In level four processing, message-based persuasion takes place. The authors point out that, as a result of greater processing capacity allocated to brand analysis, consumers will engage in a "bottom-up analysis of specific points/cues contained within the ad" (MacInnis and Jaworski, 1989, p.12). The recipients may now:

...focus on and search for salient and nonsalient ad cues perceived as message-relevant. Stored product knowledge, used to evaluate these ad elements, may result in evaluation of the importance, persuasiveness, or relevance of attended information. Such evaluations have been labeled "support arguments" and "counterarguments."

A second aspect of this processing level is that consumers allocate sufficient resources to integrate ad cues in working memory. When consumers integrate salient and nonsalient ad elements, their cognitive responses may reflect the formation of one of several classes of interpretive inferences. (1989, p.12)

The specific types of interpretive (analytical) inferences produced at this level were also specified by the authors. These were: coherence inferences, deductive inferences, or causal inferences (refer to table 2 of their article). Here also, cognitive response theory and multiattribute models apply (MacInnis & Jaworski, 1989).

At higher levels of processing, the framework posits that role taking and constructive operations may be performed (MacInnis and Jaworski, 1989). In these operations, recipients form "bridging experiences" between the self and the brand; that is, they relate information about the brand to the self.

Level 5 is where role-taking is thought to occur. This involves a kind of projection of the self into the ad or product experience. In other words, the target vicariously experiences the ad. As the authors point out, individuals must first undertake a cognitive appraisal of the situation and then match what is depicted to his or her own experiences. Identification with the person or situation presented in the ad then allows for a vicarious transformation of the viewer to the situation depicted in the ad. Such a process, however, can only occur "when the

ad contains sufficient ad cues in the form of facial expression, music, prototypical emotion-laden scenarios to allow for such a transformation. If such cues are absent, as in a purely informational ad, role-taking is unlikely to occur. The authors describe the attitude formation process which occurs at this level as "empathy-based persuasion," since consumers' attitudes are affected by vicariously experiencing the emotions the source exhibits in response to brand use or nonuse.

The last level of processing - level 6 - is thought to occur when the individual goes beyond the information given in the ad and mentally constructs product attributes, benefits, uses, or usage situations not presented in the ad. For example, consumers may combine presented information with prior knowledge to consider potential or innovative product uses (i.e., engage in problem solving). **In this mode of processing, the brand attitude is formed based on the recipients' generated thoughts, ideas, and arguments in contrast to those conveyed by the message.** Emotions should also play an important role in the formation of brand attitudes because the consumer attaches bridging experiences between the self and the brand. The authors also indicate that in this mode of processing, **advertisers have less control over the content of consumers' thoughts.** Also, with constructive processes, ad attitudes should be relatively weak or nonsalient because the individual's attention is focused internally, rather than externally at the ad. Hence, the relationship between the ad and brand attitudes is likely to be relatively weak.

Close examination of the above framework reveals that the six processing levels represent three major categories: non-brand processing (or non-issue processing) as depicted by levels 1 and 2; brand-information processing as depicted by levels 3 and 4; and finally a "projective" type of processing where individuals form "bridging" experiences between themselves and the brand, as found in levels 5 and 6.

All of the theories which have been proposed to account for level four processing and enumerated in Table 3 have been studied to varying extents from a cross-cultural perspective (e.g., Wright, 1973a; Detweiler, 1978; Triandis and Fishbein, 1963; Triandis et al., 1966; Jaccard et al., 1975; Lee and Green, 1990; Hiniker, 1969). However, the full implications for cross-cultural persuasion have been largely neglected. In particular, no concerted effort has been made to integrate the findings into a cross-cultural model of persuasion, an exception being the study by Tamilia (1977) to be described in a later section.

Levels 5 and 6, on the other hand, appear much less amenable to cross-cultural study than is level 4. For one thing, the processes thought to occur at these levels are exceedingly complex. This is especially the case for the mechanisms through which affective responses are produced. This knowledge lags considerably behind that of level four processes (e.g., cognitive response theory, attribution theory, etc.). Level 6 processing has the additional disadvantage that advertisers have less control over the contents of consumers' thoughts (MacInnis and Jaworski, 1989). For the above reasons, the present author feels that concentrating on level 3 and level 4 processing - low-moderate to moderate processing capacity, respectively - (with level 4 corresponding to Petty and Cacioppo's central processing) probably offers the greatest potential to develop a viable cross-cultural persuasion model for the effects of two-sided versus one-sided advertising appeals and for message factors in general. Research on two-sided versus one-sided advertisements have generally indicated the former to be more effective when recipients' involvement was relatively high (i.e., corresponding to Petty and Cacioppo's central processing - i.e., level 4 processing). However, research by Sorrentino et al. (1988) seems to show that this will only apply for uncertainty-oriented persons (the type of individual typically assumed by attitude theorists), but the reverse occurred for certainty-oriented persons.

In sum, a sufficient understanding exists of the mediational processes involved in level four processing to permit the development of a cross-cultural model for the effects of message sidedness. In order to do this, however, we will need to look at the major persuasion (advertising) theories that have been proposed and how these deal with aspects of message content.

1.2.2 The Three Prevailing Paradigms of Persuasion Research

Pechmann and Stewart (1989) classify the various theories of persuasion in the MacInnis and Jaworski (1989) framework into three paradigms: the heuristic, the systematic, and the affective. In essence, the theories covering the processes occurring in levels 1 to 3 form part of the heuristic paradigm; level 4 processes are part of the systematic paradigm; while the emotion-laden processes occurring during levels 5 & 6 form the "affective paradigm." Tables 1.2 and 1.3 present descriptions of the three prevailing paradigms in persuasion research and the seven most prevalent theories of advertising, respectively.

Table 1.2

Three Prevailing Paradigms of Persuasion Research
(From Pechmann and Stewart, 1989)

<i>Paradigm</i>	<i>Type of Message (Ad)</i>	<i>Predicted Immediate (Proximal) Responses</i>	<i>Predicted Delayed (Distal) Responses</i>
Systematic	Ads provide brand-relevant information	Conscious awareness, comprehension, evaluation, and acceptance of brand-relevant information	Brand purchases mediated by more favorable beliefs and attitudes
Heuristic	Ads provide heuristics, cues, problem frames, or choice rules (which suggest how to respond but are otherwise without justification); <u>affect-laden stimuli</u> may also be present	Use of heuristic, with or without conscious awareness, which precludes more systematic processing; an emotional reaction to the ad itself may also be evoked	Brand purchases mediated solely by the choice heuristic, not necessarily by more favorable beliefs
Affective	Ads contain stimuli capable of eliciting an emotional response	Emotional responses associated with the advertised brand, with or without conscious awareness	Brand purchases mediated by emotional responses (more favorable attitudes) but not necessarily by more favorable beliefs

Table 1.3
The Seven Theories of Advertising
(From Pechmann and Stewart, 1989)

<i>Theories</i>	<i>Type of Message (Ad)</i>	<i>Predicted Immediate (Proximal) Responses</i>	<i>Predicted Delayed (Distal) Responses</i>
<i>Systematic</i> Learning theories (Fishbein 1963; McGuire 1972; Fishbein and Ajzen 1975)	Ad claims the brand has a desirable attribute and may present arguments to support this claim	Conscious awareness, comprehension, evaluation, and acceptance of this information	A stronger belief that the brand has this attribute and (perhaps) a more positive evaluation of this attribute produces a more favorable brand attitude and behaviors
Cognitive response theories (Petty 1981; Olson, Toy, and Dover 1982)	Petty: Ad claims the brand has a desirable attribute Olson et al.: None specified; information about desirable brand attributes may be provided, inferred, or remembered	Petty: Conscious awareness, comprehension, and cognitive responding that reflects acceptance of this information Olson et al.: The generation of idiosyncratic cognitive responses about desirable brand attributes	A stronger belief that the brand has this attribute, which produces a more favorable brand attitude and behaviors
Dissonance theory (Festinger 1957; Ray 1982)	Ad claims the brand has and/or a competitor does not have a desirable attribute; and/or the brand does not have—and/or a competitor has—an undesirable attribute	Conscious awareness, comprehension, evaluation, and acceptance of this information	Modified beliefs about an attribute of the brand and/or of a competitor produce a relatively more favorable brand attitude and behaviors, thereby reducing dissonance
<i>Heuristic</i> Heuristic processing (Chaiken 1980)	Ad provides a heuristic cue and perhaps makes a favorable claim that may be unsubstantiated ("puffery"). The cue may be emotion laden or neutral	Exclusive reliance on the heuristic cue, which precludes a more careful evaluation of the ad's claims	Purchases mediated by the heuristic cue itself; beliefs may also change
Low involvement (Krugman 1965, 1977)	Ad contains the most basic heuristic cue—it identifies the brand (its name, logo, packaging, etc.); brand salience may be enhanced by use of emotion-laden stimuli	Processing of this cue (the brand identification), which is stored in long-term memory—perhaps subconsciously and nonverbally; affective reaction to the ad is also likely	Purchases of the brand mediated solely by a simple choice heuristic: recall or recognition of the brand; beliefs are unchanged
<i>Affective</i> Classical conditioning (Gorn 1982; Staats and Staats 1958)	Ad contains a verbal and/or nonverbal positive unconditioned stimulus (USC) associated with the brand (CS)	UCS evokes a positive emotional response (UCR) to the ad, which is later associated with the brand (CR), perhaps subconsciously	Brand acquires the capacity to evoke the positive emotional response (CR), producing a more favorable brand attitude and behaviors; beliefs are unchanged
Vicarious learning (Nord and Peter 1980; Bandura 1969)	Ad portrays a role model's reward (or punishment) for using the brand	Identification with the role model, and an emotional reaction like that of the model which is directly related to (exemplifies) the brand's emotional or experimental benefits	Brand acquires the capacity to evoke positive emotional responses, producing a more favorable brand attitude and behaviors; beliefs may also change

One should keep in mind, however, that rational, emotional, or heuristic processes may occur in the same ad. Pechmann and Stewart (1989) remind us that there is a substantial amount of empirical evidence showing that most broadcast ads are mixed. They state that it may be very difficult to find examples of purely emotional or rational ads since nearly all ads are made up of heterogeneous stimuli. This led them to posit that the stimuli which ads contain, and the mediating or proximal responses that they evoke must be portrayed along two dimensions: a systematic - heuristic (cognitive) dimension and an emotional (or more generally, an experiential) benefits dimension. The first dimension is based on the type of cognitive processing it evokes (systematic versus heuristic) while the second dimension is a continuum of emotional benefit appeals. In their classification system, they also distinguish between the use of emotional benefit appeals and the use of emotion as a heuristic device. The former aims at eliciting affective responses while the latter serve as cues.

Pechmann and Stewart (1990) tested their hypothesis with over a thousand television commercials for packaged goods. Results showed that rational ads on average received large positive scores on the systematic processing dimension and negative scores on the emotional benefits dimension. Heuristic appeals on average received large negative scores on the systematic processing dimension, indicating that they evoked heuristic processing and low scores (close to zero) on the emotional benefits dimension. While ads classified as emotional appeals, received, on average, very large positive scores on the experiential or emotional benefits dimension and large negative scores on the systematic processing dimension.

In conclusion, Pechmann and Stewart's study has demonstrated that most advertisements contain both a rational component and an emotional one. However, it appears

that it is possible to control the emotional content of advertisements. Since the present study is primarily interested in message effects in print ads and is more concerned with the information processing approach, Pechmann and Stewart's findings point to the possibility of designing appeals that minimize the affective impact, thereby, allowing us to study the logical and systematic processes that occur. In fact Pechmann and Stewart have indicated that advertising research conducted in laboratory settings with print ads have tended to produce "effortful processing" on the part of message receivers with the result that the subjects have been persuaded through the systematic route.

CHAPTER 2

TWO-SIDED VERSUS ONE-SIDED PERSUASION APPEALS

2.1 Introduction

The effect of message sidedness on attitude change has been the object of considerable research. In fact, many of the studies to be discussed in the next chapters and dealing with cognitive response and attribution theory were tested within the framework of this message strategy.

Since the main focus of this paper deals with cultural differences in message-based persuasion, and since research on message sidedness and refutation is representative of the effects of message content and structure, an in-depth review of this research will be made. In addition to looking at how the various persuasion theories explain the differences in attitude change following such appeals, we will also look at the empirical studies carried out in an attempt to validate the principle cross-culturally.

2.2 Yale Group Findings

The Yale group explored the relative attitudinal effects of "presenting only those arguments favoring the recommended conclusion (a one-sided message) and discussing also arguments opposed to the position advocated" and refuting them - (a two-sided message) (Hovland et al., 1953, p.105). Hovland, Lumsdaine and Sheffield (1949) predicted and found

that two-sided arguments were more effective among the better educated, among those well informed about the issue, and those initially opposed. Their underlying hypothesis was that "those who were opposed would be stimulated by a one-sided argument to rehearse their own position and seek new ways of supporting it" (Hovland et al., 1949, p.203). Another possible reason is that the two-sided arguments may be perceived to be unbiased. Their hypotheses are clearly founded on the *learning approach* to persuasion, more specifically, a stimulus-response paradigm. They believed that persuasive messages are stimuli that provide incentives for desired responses. The connection between stimulus and response is cognitively mediated. Receivers think about messages. If they find them interesting, believable, understandable and acceptable they comply, if not, they resist. Refer also to Figure 2. One-sided messages were seen as biased, hence, not as believable and acceptable as two-sided messages. Also, since rehearsal was seen as an essential process of learning, one-sided messages were not as effective because they stimulated rehearsal of the position opposite to what the communicator was presenting.

In the above study, effects of the communication were assessed only in terms of immediate changes in opinion. A subsequent study by Lumsdaine and Janis (1953) examined the effectiveness of the two types of messages after part of the audience had been exposed to a second, or counterpropaganda communication. It was found that for the individuals who were exposed to counterpropaganda, those who heard both sides of the issue, had a larger net change in opinion as compared to those who heard only one side.

Hovland, Janis and Kelley (1953) summarize the findings of the above two experiments as follows:

- 1- A two-sided presentation is more effective in the long run than a one-sided one
 - a) when, regardless of initial opinion, the audience is exposed to subsequent counterpropaganda, or
 - b) when, regardless of subsequent exposure to counterpropaganda, the audience initially disagrees with the communicator's position.

- 2- A two-sided presentation is less effective than a one-sided one if the audience initially agrees with the commentator's position and is not exposed to later counterpropaganda.

2.3 Research on Two-Sided Appeals in Advertising

2.3.1 Different Operationalizations of Message Sidedness

Quite a number of studies have been carried out on the effectiveness of two-sided versus one-sided appeals in marketing. Results confirm those found in general persuasion or communication studies about the superiority of two-sided ads.

Such studies, however, have not been consistent with respect to the way "two-sided" messages have been operationalized. Some messages simply mention the opposing arguments without attempting to undermine or overturn these arguments in any way, others present the negative claims in such a way that they are outweighed by the positive considerations of the products or brand, and, finally, it is possible to explicitly "refute" the negative claims by presenting evidence or by argumentation (O'Keefe, 1990). These different ways of treating opposing arguments have somewhat complicated studies in this area. Two-sided non-refutational ads have been shown to generate a greater perception of advertiser truthfulness (Chebat and Picard, 1988; Kamins and Assael, 1987; Smith and Hunt, 1978), greater overall

believability (Golden and Alpert, 1987; Anderson and Golden, 1984; Golden and Alpert, 1978; Settle and Golden, 1974), and greater affect toward the ad than one-sided appeals (Chebat and Picard, 1988; Golden and Alpert, 1987). However, attempts to influence beliefs and attitudes toward the products or brand have met with only limited success (Kamins and Assael, 1987; Golden and Alpert, 1987; Golden and Alpert, 1978; Settle and Golden, 1974; but see Pechmann, 1992). Finally, efforts to influence purchase intention have, for the most part, proven unsuccessful (Kamins and Assael, 1987; Golden and Alpert, 1987). Table 2.1 summarizes the findings of the various advertising studies carried out with two-sided non-refutational appeals.

As exemplified by the findings in the Golden and Alpert (1987) study, two-sided nonrefutational appeals have not always been successful in enhancing product ratings, intentions, or attitudes. Although two-sided ads were able to increase overall believability and affect toward the ad for both products tested, deodorants, and mass transit, the ad only succeeded in increasing product ratings and intention to buy for deodorants. Results such as these led Kamins and Assael (1987) to state:

These varied findings are surprising in light of the appeal's apparent positive effect on advertiser truthfulness and believability, but may be explained as being a function of such factors as media type, subject involvement, and exposure frequency and time (Belch, 1981). In a cognitive sense, such appeals may be hampered in influencing attitude and intention because *unrefuted disclaimers may still lead to a high degree of counterargumentation*. (p.31; emphasis my own).

Table 2.1
Summary of Findings on the Benefits of Using Two-Sided Non-Refutational Appeals

		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Chebat & Picard (1989)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Kamins & Assael (1987)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">2-sided non-refutational</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Golden & Albert (1987) <small>(book form)</small></div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Golden & Albert (1987) <small>(mass-transmit)</small></div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Anderson & Golden (1987)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Settle & Alpert (1984)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Smith & Golden (1978)</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Kamins (1974)</div> </div>									
Aspects of the credibility of the advertisement	Advertiser truthfulness	S	S							S	
	Overall believability			S	S	S	S	S		S	
	Perception of informativeness of ad			S	S						
	Affect toward the ad	S		S	S						
Beliefs and attitudes toward product attributes & overall	Belief that product possesses the (+) claims indicated		S*	S	NO		S	S~			
	Attitude toward product										
	Intention to buy		NC	S	NO						
	Inoculation against belief change		S								

Legend: S= Significant improvement of two-sided appeal in comparison to one-sided appeals.

NC=No change (non significant)

* =Less belief change than one-sided -- as expected.

=Authors cautioned that overall product evaluation may not always be affected.

2.3.2 Correlational Inferences

A number of other researchers are also of the opinion that the presence of disclaimers has both positive and negative effects on attitude change. Although these can increase the credibility of spokespersons, the fact that they present a negative aspect of the product, especially if this disclosure is significant, may result in receivers derogating the product. As Pechmann (1992, pp.441-453) states:

If consumers who are exposed to a two-sided ad judge the advertised brand more favorably on the primary attribute, one might also expect them to evaluate the brand more positively overall....However, an additional factor must be considered - the revelation that the brand has an undesirable level of the secondary attribute may adversely affect overall evaluations....In fact, typically, these two effects seem to offset each other so that a two-sided ad is no more effective overall than its one-sided counterparts (Belch, 1981; Settle and Golden, 1974; Stayman, Hoyer, and Leon, 1987).

She thus proposes that the "derogatory" effect of disclosure of the secondary attribute may be partially compensated when the primary and secondary attributes are negatively correlated.

The stimulus ad she uses for her experiment illustrates the notion of negatively correlated attributes. Her ad centered on a new premium ice cream which was supposed to outrank competition in terms of richness, creamy taste, and freshness of ingredients. The "downside" of using the product, however, was the fact that it had more calories than the other leading brands. This was the secondary attribute and was negatively correlated to the primary attributes. She hypothesized that the high level of the secondary (undesirable) attribute would cause subjects to infer higher levels of the desirable (primary) attribute(s) in the brand. As a result, this would attenuate the effect of the disclosure of the "undesirable" aspects of the product. In her words:

When a two-sided ad features negatively correlated attributes, however, perhaps the improvement in primary attribute judgments (due to the joint effects of correspondent and correlational inferences) will more than offset the negative effect of the disclosure about the secondary attribute" (1992, p.443).

Her results strongly supported her hypothesis. Two-sided ads that led subjects to generate both *correspondent and correlational inferences* were more effective than one-sided ads at enhancing overall brand evaluations.

2.3.3 Two-Sided Refutational Appeals

Another way of minimizing the effects of disclaiming an attribute of the product is by refuting or directly attacking the negative arguments. Two-sided *refutational* messages have, surprisingly, been the object of a relatively limited number of studies (e.g., Sawyer, 1973; Bither et al., 1971; Szybillo and Heslin, 1973; Kamins and Assael, 1987). What findings are available, however, seem to indicate that this approach is superior to the two-sided non-refutational appeal (see, also Allen, 1991; Allen et al., 1990).

One of the earliest studies which examined the effectiveness of two-sided *refutational* appeals was by Sawyer (1973). He tested the hypothesis that a refutational appeal would significantly interact with the number of repeated advertising exposures. He found that for users of the competitor's brand, repetition of refutational appeals over a short period of time was more effective in increasing purchase intention than repetition of supportive appeals. The study by Bither et al. (1971) focused on testing the concept of "inoculation" (McGuire and Papageorgis, 1961) within a marketing context. Since the original work by McGuire and

Papageorgis was carried out with cultural truisms¹, it could not be directly applied to marketing since most beliefs about products are not universally held. The belief they chose for testing was that there should be little or no censorship of movies - clearly not a belief that everyone shares. They found that inoculation - refuting the attack's argument before the attack was given - increased the positive level of the attitude, and attack lowered belief level for both inoculated and non- inoculated subjects. The inoculation x attack interaction was not significant. This led the authors to conclude that they failed to reject the null hypothesis. However, the data would appear to indicate that subjects in the attack conditions not prepared with inoculation showed greater negative attitude change than those subjects prepared with inoculation.

The study by Szybillo and Heslin (1973) also tested inoculation techniques in marketing. They found that all defensive techniques attempted gave greater resistance to persuasion than a no-defense treatment; moreover, the refutational defense was superior to the direct supportive defense. These three studies confirmed the predictions from inoculation theory that two-sided *refutational* appeals conferred a greater resistance to attack than did the one-sided appeal.

In conclusion, in a consumer product advertising context, two-sided appeals - especially the *refutational* variety - tend to be superior to their one-sided counterparts in enhancing the *cognitive* and *affective* components of advertisement credibility.

¹Cultural truisms are attitudes so prevalent and strongly held in society that one is rarely if ever subjected to counterarguments.

2.4 Theoretical Explanations of Message Sidedness Effects

Several different approaches have been used to explain the differential effectiveness of one-, and two-sided appeals on long-run attitude change and resistance to counterpersuasion. Early attempts revolved around the learning theory approach to persuasion (Hovland, Lumsdaine, and Sheffield, 1949; Hovland, Janis, and Kelley, 1953), and the application of Kelley's covariation theory (Settle and Golden, 1974). However, both of these mechanisms have been supplanted by new approaches. The two explanations which now have the most currency are centered on McGuire and Papageorgis' (1961) inoculation theory and the Jones and Davis (1965) theory of correspondent inferences (and the closely related augmentation/discounting principle, Kelley, 1972). Two studies, one by Kamins and Assael (1987), and the other by Hastak and Park (1990) examined the operation of these two mechanisms. These will be reviewed below. A more in-depth coverage of these and other mechanisms is given in the following chapter.

2.4.1 Inoculation Theory

According to inoculation theory, subjects who are initially opposed to the position of a communication will generate significantly less counterarguments when the message is in the two-sided refutational form than if it only presents supportive arguments. As a result, the refutational appeal should lead to a greater acceptance of the communicator's position (Kamins and Assael, 1987).

A refutational message should also lead to greater persuasion in the case where the subject was in agreement with the communicator's position "because of a motivation to

bolster one's defenses upon exposure to potential counterarguments" (Kamins and Assael, 1987, p.30). In this case, two-sided refutational appeals, as opposed to other forms, should generate more support argumentation as a result of this desire to prepare oneself against possible later counterarguments (Kamins and Assael, 1987; see also Sorrentino et al., 1988).

2.4.2 Correspondent Inference Theory

The second theory tested is based on correspondent inference theory (Jones and Davis, 1965). The theory deals with the formation of dispositional attributions. When an observer attributes the cause of an event to the true feelings or disposition of an actor (the communicator, in this case), a correspondent attribution is said to occur. On the other hand, when observed behavior is attributed to situational constraints or pressure on the actor, a noncorrespondent attribution is made. The more the behavior of an actor (communicator) is unexpected or departs from the norm, the greater the probability that attributions will be correspondent. When an actor's behavior goes against the accepted norm, such behavior has a higher probability of reflecting the true characteristics of the individual than of possible outside constraints.

In the case of advertising, two-sided appeals tend to go against the norm since receivers expect the communicator to fully support his/her brand. Thus, following reception of a two-sided appeal, a receiver would tend to make a correspondent attribution by associating the varied message claims with the credibility of the source. One-sided messages, on the other hand, are the traditional form of appeals. In this case, individuals would tend to make noncorrespondent attributions by associating the non-varied message claims to the

source's desire to sell the product. Receivers would tend to assign considerably less credibility to the source than in the former case (Kamins and Assael, 1987). The five hypotheses which ensued from a consideration of the two theories in the Kamins and Assael study are depicted in Figure 2.1 below. The figure represents the continua of cognitive responses and differences in purchase intentions.

Their experiments confirmed that two-sided appeals (both refutational and non-refutational) lead to significantly less counterargumentation and more support arguments than one-sided appeals. However, their hypothesis that refutational messages were superior to two-sided non-refutational messages received only directional support.

Results also showed that the one-sided appeal produced significantly more source derogation than either of the two-sided appeals - as hypothesized. However, source derogation was not found to significantly differ between the two-sided appeals although there was *directional* support for their hypothesis that two-sided *nonrefutational* appeals produced the lowest level of source derogations.

The authors conclude that although there is support for the mechanisms outlined in both theories, the results seem to weigh more heavily towards the inoculation theory explanation. As a result, according to them, "counter or supportive consumer responses may be more important as cognitive belief change mediators than source attribute variables" (Kamins and Assael, 1987, p.36). This cognitive responding mediation (i.e., generation of counter- and support- argumentation) has, in fact received additional support from research by Hale and associates (1991, and personal communication, 1993), as well as from a study by Sorrentino et al. (1988) to be discussed below. However, in spite of the greater importance

of these types of cognitive responses as mediators of cognitive belief change, Kamins and Assael seem to view the two theories as complementary rather than competitive. As they state:

Inoculation and correspondence theories make different contributions in predicting cognitive responses. It is apparent that inoculation theory is predicting the nature of consumer responses - counter or supportive - based on the communications stimuli. Conversely, correspondence theory is concerned primarily with the attribution to the source - enhancing or derogatory - based on the same communications stimuli. (1987, p.31).

Figure 2.1

Hypotheses Tested in the Kamins and Assael (1987) Study

COUNTERARGUMENTATION (H1)		
LOW Two-Sided refutational	two-sided nonrefutational	HIGH one-sided appeal
SUPPORT ARGUMENTS (H2)		
HIGH two-sided refutational	two-sided nonrefutational	LOW one-sided appeal
SOURCE DEROGATION (H3)		
LOW two-sided nonrefutational	two-sided refutational	HIGH one-sided appeal
BELIEF CHANGE (H4) (Given a disconfirming product trial experience)		
LOWEST two-sided refutational	two-sided nonrefutational	HIGHEST one-sided appeal
DIFFERENCE IN PURCHASE INTENTIONS		
BEFORE AND AFTER TRIAL (H5) (Attitude change should be similar to intentions)		
LOWEST two-sided refutational	two-sided nonrefutational	HIGHEST one-sided appeal

According to Kamins and Assael (1987, p.38), the processes subtending each theory may depend upon the level of content-involvement of the appeal on the recipients. As they state: "Alternative cognitive responses have been found to vary in importance as variables mediating belief structure depending on the degree of involvement (Houston and Rothschild, 1977; Petty and Cacioppo, 1981b; Wright, 1974)." On this basis, they proposed the following hypothesis for future testing:

...predictions made from inoculation theory are most relevant under high involvement conditions, whereas those from correspondence theory apply under low involvement conditions. (1987, p.38)

This view of the complementary nature of the mechanisms thus appears to be based on their belief that the processes apply to different part of the elaboration continuum -- correspondent attributions being found under low involvement situations and support and counterargument responses occurring in high involvement situations.

Although, according to Kamins and Assael (1987), the two processes (i.e., correspondent inferences and cognitive responding) may take on importance in different regions of the elaboration (involvement) continuum, with the former being more important for low involvement situations and the latter more important at higher levels of involvement, their own results also show that the two can occur simultaneously. In their study, the nature of the product and the use of the printed ads implies that the subjects were in a moderate to high level of involvement. *Both* source-based inferences in the form of correspondent attributions and counter- and support- argumentation were found. In the Pechmann (1992)

study, the use of such secondary attributes as "calories" in study 1 and "sodium content" in study 2 also leads one to conjecture that the ads would have invoked moderate to high levels of involvement. Even in these conditions subjects were found to generate correspondent attributions.

From a theoretical point of view, however, there is some controversy as to the level of cognitive effort involved in attributional processes. For instance, at one point Eagly and Chaiken (1993, p.352) state that, like heuristic processing, attributional processing, of which correspondent inferences represent a subtype, "constitutes a cognitive peripheral route mechanism within the elaboration likelihood model of persuasion" (1993, p.352). Thus, according to them, causal inferences are akin to other peripheral mechanisms; and, just like these mechanisms, would most likely mediate attitude change under low levels of elaboration likelihood. But they go on to add that:

More complex, contingent predictions would follow from the perspective of the heuristic-systematic model because attributional reasoning is presumably more effortful and capacity limited than heuristic processing, yet less effortful and less capacity demanding than scrutinizing persuasive argumentation itself. (1993, p.363)

In this view, attributional processes such as correspondent inferences are more effortful than simple decision rules but less so than argument-based processing. A more extensive review of the subprocesses making up correspondent inferences, to be seen in Chapter 4, will also reveal this greater complexity of attributional processes. In fact, at this point it would appear that the correspondent inference process seems to straddle a much greater portion of the personal involvement and elaboration likelihood continuum than the action of peripheral cues.

Also, according to Eagly's Heuristic-Systematic Model, both processes can occur simultaneously under the right conditions. As Eagly and Chaiken (1993, p.363) state:

Extrapolating from the basic tenets of the heuristic-systematic model, whether heuristic cues, causally relevant persuasion cues, or message content manipulations...differ in their relative persuasive impact should depend upon a number of mutable factors: (a) situational and individual differences in people's abilities to engage in argument-based processing; (b) ...the availability, accessibility, and reliability of knowledge structures relevant to attributional reasoning; and (c) situational and individual differences in motivation to engage in effortful information processing....Moreover, in situations conducive to all three processing modes, the extent to which information furnished by the three modes contradicted one another would also need to be taken into account. For example, if argument-based processing contradicted the validity of an attributionally based inference about message validity, causally relevant contextual cues might exert little judgmental impact (i.e., an attenuation effect). Of course, to the extent that such information was not contradictory, additive effects might be predicted. (1993, p.363)

In sum, it would appear that, based on Eagly and Chaiken, both cognitive responding and the formation of correspondent attributions can occur simultaneously - provided that the information contributed by attributional thinking does not contradict that provided by argument processing. The empirical evidence presented earlier as well as theoretical evidence presented by Gilbert et al. (1988) and Trope and Liberman (1993), to be reviewed later, also point to the possibility that both processes can occur simultaneously. That both processes may operate simultaneously in the processing of two-sided ads was also recognized by Crowley and Hoyer (1994). Their model of two-sided persuasion effects is based on three mechanisms: namely, correspondent inference theory (Jones and Davis, 1965); inoculation theory (McGuire and Papageorgis, 1961); and optimal arousal theory (Berlyne, 1971). Essentially, the presence of a disclaimer in the message is believed to raise the level of perceived credibility of the

spokesperson. If the level of negative information provided in the disclaimer is low to moderate, the increase in credibility will tend, in turn, to increase the attitude toward the brand (A_{BR}). Credibility is also believed to bias the formation of CRs by attenuating counterargumentation.

Optimal arousal theory posits that two-sided messages are "pleasingly novel," and, as a result, generate positive affect toward the ad (A_{AD} ; Crowley and Hoyer, 1994) which then translates into a greater A_{BR} and a greater attention and motivation to process the arguments in the message. This enhanced motivation to process, coupled with the biasing effects of credibility, are believed to influence the number of CRs generated, with more SAs and less CAs than in the case of one-sided messages.

2.4.3 Sorrentino et al. Study

A study by Sorrentino et al. (1988) sheds more light on the above processes by showing that two-sided messages are more effective when message receivers engage in systematic processing while one-sided messages are more effective when subjects engage in heuristic processing. The study also shows the effect of an important individual difference variable on the relative effectiveness of two-versus one-sided messages at different points on the personal involvement continuum.

In their study, Sorrentino et al. (1988) found a difference between "uncertainty-oriented" persons and "certainty-oriented" persons in their use of systematic versus heuristic information processing in the treatment of persuasive messages. The construct of "uncertainty-orientation" refers to an individual difference variable that reflects that some

individuals are more motivated to carry out an in-depth processing of information "in situations that involve uncertainty about the self or the environment" (1988, p.358) while certainty-oriented persons would display greater motivation "in situations that involve certainty about the self or the environment" (p.358). This essentially would mean that the former are more motivated to process message arguments (i.e., engage in central processing) when the level of personal relevance (involvement) in a situation is high whereas they would tend to use heuristic cues in low relevance situations. Certainty-oriented individuals, on the other hand, would show the reverse pattern.

In one of their studies to test this effect, they compared the relative effectiveness of two-sided versus one-sided appeals at high and low levels of personal relevance. This test was based on the assumption that, in contrast to two-sided messages, one-sided appeals "do not require integration of conflicting views and do not introduce ambiguity about the correct position on the issue" (1988, p. 359) whereas the former do. As a result, in one-sided ads, receivers do not have to invest as much cognitive work as in the case of two-sided ads (1988, p. 359). Thus, they state: "...if a two-sided message is to be effective, recipients must be willing to process the arguments thoughtfully" (p.359). This led them to hypothesize that for two-sided messages, individuals who are more uncertainty-oriented would tend to be more persuaded when personal relevance was high whereas certainty-oriented subjects would be less persuaded under high than low relevance - this because the latter are thought to engage in systematic processing only at low levels of involvement. The opposite was hypothesized for one-sided advertisements. These hypotheses were confirmed. In their discussion, the authors state:

Uncertainty-oriented subjects behaved like most attitude theorists appear to assume everyone behaves, being more influenced by the two-sided message and less influenced by the one-sided message under conditions of high personal relevance than low personal relevance. Certainty-oriented subjects, however, demonstrated the opposite pattern of persuasion. Under conditions of high personal relevance, certainty-oriented individuals were less persuaded by the two-sided message and more persuaded by the one-sided message than under conditions of low relevance. Presumably, certainty-oriented subjects are not motivated to think for themselves and therefore look for external guidance or cues on important issues; the one-sided message in this experiment provided a strong cue that the advocated position was valid, whereas the two-sided message introduced ambiguity. On the other hand, certainty-oriented persons are motivated to think for themselves, ironically, when the issue is not personally relevant. (1988, p. 363)

The authors believe that these results show that uncertainty-orientation has the ability to discriminate among individuals with respect to their tendencies to engage in either systematic or heuristic processing in specific situations. A limitation of the first study is that systematic versus heuristic processing was only inferred and was not directly manipulated. This prompted the authors to carry out a second study. This study was based on the experiment by Petty et al. (1981b). They hypothesized that if uncertainty-oriented subjects are more predisposed toward systematic processing under high personal relevance condition, then in this condition strong arguments should produce more attitude change than weak arguments, but source expertise should not affect persuasion. Certainty-oriented individuals should show the opposite behavior: They should be more persuaded by strong arguments in low relevance condition (corresponding to systematic processing) while they should be more persuaded by heuristic processes (i.e., source expertise) at high levels of personal relevance. Again these hypotheses received strong support.

In sum what these studies indicate is that subjects can vary as to the level of personal relevance which can instigate systematic processing. High personal relevance will lead to

systematic processing for uncertainty-oriented individuals - *like the way most attitude theorists assume everyone behaves*; whereas for the case of certainty-oriented individuals, systematic processing only occurs at low levels of personal relevance. For these individuals, high relevance leads to heuristic processing².

The Sorrentino et al. study offers further proof, in the present author's opinion, of the simultaneous occurrence of attributional and cognitive response processes. Their findings showed that two-sided ads become effective under conditions which favor systematic processing; that is, under conditions of effortful processing. It demonstrates that for the "typical" message receiver (that is, for the uncertainty-oriented individual) two-sided messages will be more effective than one-sided appeals under conditions of effortful processing. It also serves to confirm that the greater effectiveness of the former over the latter is due in part to greater message elaboration on the part of the receivers. However, the higher elaboration and central processing also provide the right conditions for correspondent attributions to form. First, it provides the greater capacity needed for attributional thinking; second, it provides for the minimal message processing to allow the receiver to detect the two-sided nature of the message.

² Certainty-oriented individuals who are exposed to persuasive communication in a high personal relevance situation would pick up source cues and use them as heuristics to change their attitudes. When these individuals are exposed to two-sided messages, they would still be required to engage in minimal message processing in order to detect the two-sided nature of the arguments within the message.

2.4.4 Hastak and Park Study

2.4.4.1 Objectives and Hypotheses

A study by Hastak and Park (1990) also fuels the drive of the present study to better understand the underlying mediating processes of message sidedness effects and the need to focus on the higher involvement end of the elaboration continuum.

In their work, the authors had set out to examine the mediation processes at work during reception of these types of messages. In their words:

One goal of the present study was simply to create the conditions under which mediation effects due to both mediators (cognitive responses and message/source believability) on attitude could be examined. A second, more important goal, was to investigate the conditions under which one of these mediators would likely *dominate the other*. (Hastak and Park, 1990, p. 329; emphasis my own).

The framework which they utilized to understand this mechanism was the Elaboration Likelihood Model. The model could be used to explain the operation of multiple mediators. For instance, in the high involvement situation the model postulates the operation of cognitive responses as the principal mediators of message sidedness effects. As they state:

Thus, a two-sided appeal will induce more favorable attitudinal effects to the extent that it is successful in biasing the evaluative tone of message processing by either suppressing counterarguments and/or enhancing support arguments.

In the case of uninvolved audiences, they first point out that audiences must first detect the presence of the "peripheral" cue which is embedded in the message. Only then can they use the cue to generate an overall impression of the advertised brand. They state that:

Since the disclaimed attributes are embedded in the verbal message of a two-sided communication, a distinct possibility is that uninvolved audiences may not even recognize the two-sided nature of the communication. This suggests that a two-sided message [under these conditions] may frequently have no advantage over a one-sided message in influencing brand attitude. (Hastak and Park, 1990)

However, in the event that the message receiver detects the message sidedness cue, they believe that the two-sided message will be differentially effective over their one-sided argument to the extent that the message sidedness cue serves as a means of inferring source/message believability (Hastak and Park, 1990). They state:

...effects of message sidedness on attitude will be mediated by perceptions of source credibility (if a source is explicitly identified) and/or message believability. Importantly, ELM predicts no effects due to message sidedness on cognitive response (counter and support arguments) [in this condition]. Also effects on beliefs about attributes not disclaimed (if any) should be due to halo effects, and should not be mediated by cognitive responses. (p.330)

In sum, the authors made the following hypotheses:

- 1- The level of involvement of the subjects should influence the degree to which they recognize the manipulation of message sidedness and the particular form that mediation will take.

- 2- Because low involvement subjects only process the message in a superficial and cursory manner, they should show only weak effects of the manipulation on beliefs about the disclaimed product attributes.

- 3- At high levels of involvement, effects of the manipulation on attitudes should be mediated by brand-related cognitive responses; while for low levels of involvement, effects on attitude should be mediated by perceptions of message/source believability. No effects of brand-related cognitive responses should occur under low levels of involvement.

A laboratory experiment was carried out using a 3 (high involvement, low involvement, and control) by 2 (one versus two-sided message) design to test the above hypotheses. Their findings confirmed their expectations with respect to the sensitivity to manipulation of message structure: involved subjects were found to be more sensitive to manipulation of message sidedness than low involved subjects. The principal hypotheses, however, were not supported: There were no effects due to the manipulation of message sidedness on brand beliefs or attitudes either for involved or uninvolved subjects.

The effectiveness of the message sidedness manipulation was verified by examining beliefs on the two attributes that were disclaimed in the two-sided appeal. It was found that two-sided appeals caused subjects to have significantly weaker beliefs in the disclaimed attributes than in the case of subjects exposed to one-sided appeals. Of particular interest were the findings with respect to the interaction of message response involvement (MRI) and message sidedness. It was found that message sidedness had a stronger impact on the disclaimed beliefs in the case of involved subjects than in the case of the uninvolved ones. For the involved subjects $F(1, 62) = 37.1$ for "variety of colors" and 11.59 for "uniquely styled barred", with both p 's $< .01$ while for the same attributes in the low involvement situation the F -values were $F(1, 58) = 6.69$, $p < .05$ for the first attribute and $F = .53$, $p > .4$ for the second

attribute. This confirms the expectation that high MRI individuals scrutinized the ad message more carefully and were able to *detect the sidedness manipulation* in the message to a greater extent than their low involvement counterparts.

2.4.4.2 Effects on Mediators

A 2 (high versus low MRI) by 2 (one versus two-sided message) ANOVA on measures on cognitive responses, message quality, message believability, and source credibility was carried out. Results showed that message sidedness had no effects on any of the dependent variables and, moreover, the interaction was also non significant. The authors also indicated that they found no effects "on measure of the proportion of counter and support arguments, or on the number/proportion of positive and negative ad and source-related thoughts produced by subjects" (Hastak and Park, 1990, p. 333). One noteworthy finding, however, was the main effect of MRI on perception of message quality and source credibility. **This suggest, according to the authors, that the involved message receivers judged the ad's message to be stronger, and the message source to be more credible than for the case of the uninvolved receivers.** The authors conclude from the above that the potential mediators of effects on attitude were not affected by the message sidedness manipulation. Also, results for measure of BELIEF and ATTITUDE MEASURES paralleled the results obtained for the mediators.

2.4.4.3 Limitations of the Study

The way Hastak and Park manipulated involvement was analogous to the method used by Petty, Cacioppo, and Schumann (1983) and was embedded within the ad booklet given to the subjects. Their manipulation check did reveal that their stimulus influenced the perceived personal relevance of the product by the subjects. They also examined the brand involvement manipulation on message response involvement (MRI). Unfortunately, the mean MRI scores for the high and low involvement groups were almost identical. As they state: "...these result suggest that variations in perceived personal relevance induced by our manipulation did not produce the anticipated parallel effects on brand processing" (1990, p. 332). In order to compensate for this deficiency, the authors conducted three sets of analyses based on (1) manipulated levels of involvement, (2) a blocking factor obtained from a median split on the MRI measure to create two groups that differed in terms of level of MRI, and (3) a median-split on the number of brand-related thoughts and the creation of two groups of subjects differing in terms of amount of processing vis-a-vis the brand message. After carrying out the analyses using these different measures of involvement, the authors arrived at similar results and identical conclusions. Although they appear to have compensated adequately for the operationalization problems with respect to involvement, as they state:

...the failure to unambiguously validate the involvement manipulation suggests that our results concerning involvement effects should be cautiously interpreted. (Hastak and Park, 1990, p. 334)

In conclusion, the authors state:

Our results suggest that a two-sided message does not produce more favorable effects on brand-related cognitive structure than does a one-sided message. Although all subjects clearly recognized the message sidedness cues, and formed distinctly inferior

beliefs on attributes disclaimed in the two-sided messages, message sidedness had no effects on any of the brand beliefs and attitude measures, nor did it influence measure of message processing and message/source believability.

Our results also suggest that variations in involvement with the brand or the brand message do not alter the effects due to message sidedness. Clearly, no analyses for differential mediators of message sidedness effects under high versus low involvement could be conducted because there were no effects to be mediated. It is conceivable that weak recognition of the message sidedness cue among uninvolved subjects produced the pattern of results obtained for this group. What is surprising is that involved subjects, who strongly responded to the message sidedness manipulation, showed no effects on cognitive response or attitude measures. A possible explanation for this result may reside in the mix of counter and support arguments produced by our subjects in response to the pen ad. Past marketing research indicates that significant effects due to message sidedness on cognitive responses are usually obtained when counterargumentation is the dominant mode of message processing (e.g., Kamins and Assael, 1987). Also, Inoculation theory (McGuire 1961) suggests that two-sided messages are most effective when audiences are initially negatively predisposed towards the advocacy issues, and hence likely to predominantly counterargue with the message. Our subjects generated more support than counter arguments in response to the ad, and reported very favorable brand attitudes. Thus, a two-sided message could not have influenced attitudes through suppression of counterargumentation. Note, however, that message sidedness could still have produced attitudinal effects through enhancement of support argumentation, although this did not happen in the present study. (1990, p. 334).

They end by stating that:

Future research incorporating a stronger and more convincing manipulation of involvement should prove useful in developing more unambiguous tests of ELM - based predictions than were achieved in the present study. (1990, p. 335)

In addition to the above explanations with respect to the lack of an observed effect of sidedness manipulation on low and high involvement subjects, a number of confounding factors may help explain the pattern of results.

The first factor may be the individual difference construct tested by Sorrentino et al. (1988), namely, "uncertainty avoidance." Assuming that both uncertainty avoiding and certainty avoiding subjects composed the Hastak and Park sample, it is highly plausible that the reactions of both of these groups to the message sidedness effects *may have cancelled themselves out*. If certainty avoiding subjects are more influenced by two-sided messages than one-sided messages under conditions of low personal relevance while the opposite occurs for uncertainty avoiding subjects, it is evident that the resultant would be a very small or nonexistent effect. The same would occur in the high involvement situation.

Another factor at work may be "need for cognition." Again if we assume that the sample contained both high NFC and low NFC individuals, several mechanisms could have operated to contribute to the finding outlined above. First of all, the problem conjectured by Hastak and Park with respect to detection of the sidedness manipulation under low involvement conditions may have been exacerbated for low NFC individuals. These individuals operating in a low involvement situation may have had such a low level of motivation to process message arguments that they would not have detected the message sidedness manipulation embedded within the message. After all, a minimum level of motivation is needed in order to scrutinize the message and detect the difference in message sidedness in the experiment. In fact, as will be seen below, the fact that the mechanism thought to underly a subject's perception of source honesty and trustworthiness is based on attributional processing, and since such processes tend to require some cognitive effort, this condition may simply have been lacking for low need for cognition individuals in a low involvement situation.

The only segment of the student subjects which could have reacted to the message sidedness manipulation would probably have been the students who have a natural inclination to engage in cognitive activity, namely, the high NFC group. These individuals would have had sufficient motivation to process the message arguments and could have based their attitudes either on the perceived honesty of the source/message or on the basis of the inhibition of counter argumentation or increases in support argumentation due to the two-sided message. However, the fact that these individuals have a natural propensity to attend to message arguments means that, in effect, they could have behaved like those individuals who were exposed to a high involvement *situational* manipulation. That is, high NFC individuals may have, for all intents and purposes, behaved like their high involvement counterparts. This may also have been at the root of the authors' difficulties of validating the involvement manipulation - for instance, the fact that the mean MRI levels for the high and low involvement groups were virtually identical.

2.4.5 Chebat and Picard Study - Affective Versus Cognitive Mediation of Two-Sided Appeals

Aside from the Sorrentino et al. (1988) study, the only other study which examined the possible relationship between a psychological characteristic of the audience and acceptance of two-sided advertisements was by Chebat and Picard (1988). As these two authors point out, researchers have tended to ignore the idea that personal characteristics may have acted as mediators between message sidedness and credibility. Their study was aimed to fill this gap. Specifically, they investigated the possible mediational role of "self-

acceptance" - a construct closely related to self-esteem - on the effectiveness of two-sided versus one-sided messages.

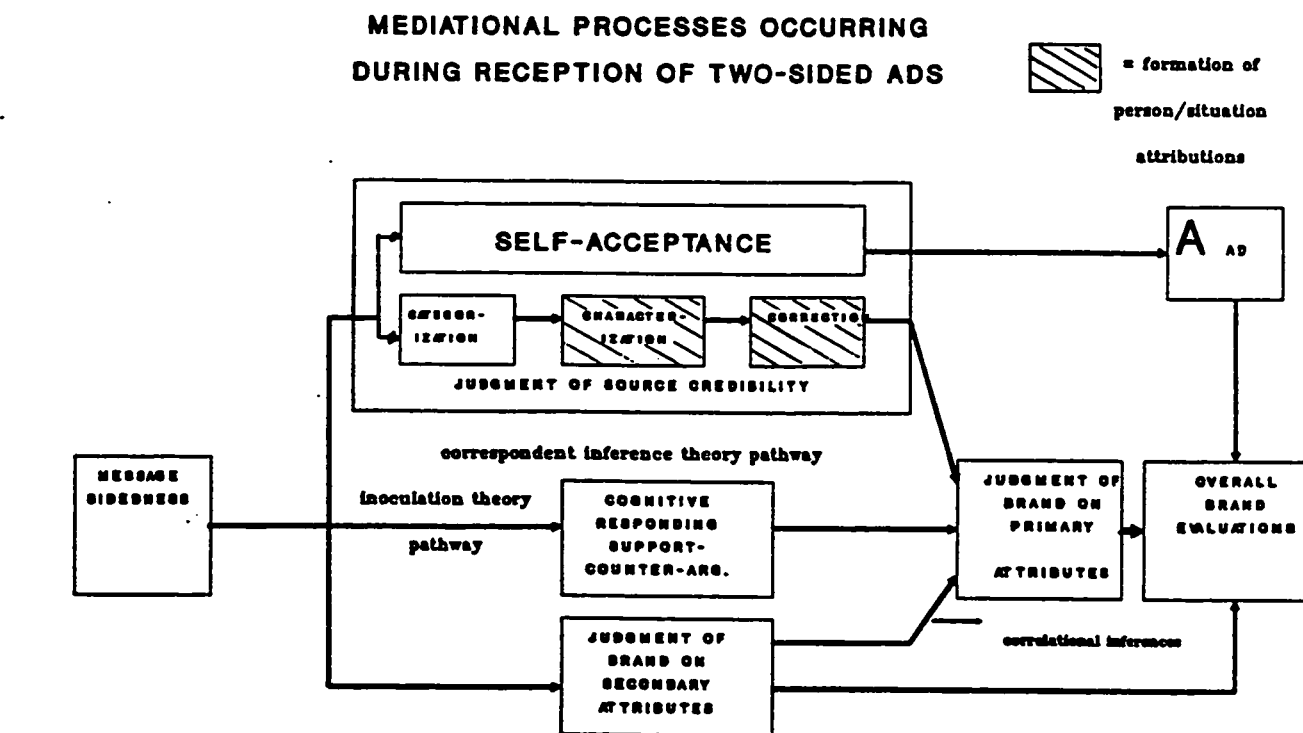
Self-acceptance is another dimension of the self-concept. Crowne and Stephens (1961, p.104) define it as "the extent to which the self-concept is congruent with the individual's description of the ideal self." It can also be viewed as an individual's attitude toward his/her self-esteem. Self-accepting individuals are realistically aware of their own strengths and weaknesses and feel their "unique worth" (English and English, 1958; Jersild, 1960; cited in Chebat and Picard, 1988). Chebat and Picard have reviewed studies which indicated that individuals high on the self-accepting scale are "more likely to have a favorable attitude toward messages that show a 'realistic' view of the products advertised than self-rejecting persons" (p. 355). As a result, self-accepting individuals should not respond negatively to, say, a spokesperson's admission of weakness in a product (Chebat and Picard, 1988). On the other hand, self-rejecting individuals should "perceive the world in a more dichotomous way, that is, in terms of good versus bad. This dichotomous view... will cause him to place in the 'bad' category a person or thing that projects any fault" (p.355).

They tested the above hypothesis with a 2 X 2 (Product X Level of Message Sidedness) factorial design administered to college students. The subjects were required to complete a questionnaire to assess cognitive and affective attitudes toward advertising messages as well as the Phillips (1951) Self-Acceptance Scale. Their findings first of all confirmed that when two-sided messages were addressed to a general audience, the appeal enhanced cognitive but not affective scores as was found in earlier studies. The second finding

was that message sidedness interacted significantly with self-acceptance: High self-accepting individuals showing a more favorable *attitude toward two-sided messages*³.

In sum, following reception of a two-sided message, three *cognitive* mechanisms appear to operate simultaneously to cause receivers to develop positive judgments of the brand on primary attributes and a positive overall brand evaluation: correspondent inferences, inoculation theory (cognitive responding), and correlational inferences. In addition, as Chebat and Picard have revealed, an *affective* process can also occur to influence the attitude toward the ad (A_{ad}). The simultaneous operation of these mechanisms in a moderate to high involvement situation is depicted in Figure 2.2 below. Since the principal role of the correlational inference pathway is to offset the disclosure of a shortcoming in the advertised brand, the main thrust of this thesis will be on the other cognitive and affective mechanisms

Figure 2.2



³ The authors essentially equate attitude toward the message/ advertisement with the affective component of credibility.

All of the above studies were carried out in North America. They offer considerable proof that for American subjects at least, two-sided appeals - especially the refutational variety - are superior to one-sided ones, in line with the meta-analysis carried out by Jackson & Allen (1987). Unfortunately, very few studies explicitly testing this principle on a cross-cultural basis have been carried out. This is the subject to which we now turn.

2.5 Empirical Investigations of Two-Sided Appeals in a Cross-Cultural Context

2.5.1 The McGinnies Study

A study by McGinnies (1966) set out to test the hypothesis that a two-sided presentation would be superior to a one-sided appeal in persuading individuals who initially opposed the advocated position; and that for individuals who support a communicator's position, a one-sided appeal would be more effective. In effect, since the experiment was conducted with Japanese students, it also attempted to validate Hovland et al's hypotheses in a cross-cultural context. The subjects used for his experiment were university students. It should also be pointed out that the two-sided approach used was of the "weaker" non-refutational variety.

Results confirmed the findings of Hovland, Janis and Kelley (1953) regarding the greater effectiveness of two-sided versus one-sided communication on immediate attitude change among those individuals initially *opposed* to the communicator. However, subjects who originally *agreed* with the position of the communicator were not influenced significantly by either the one- or two-sided presentation, although results show that the one-sided

argument appears to have been slightly more effective than the two-sided approach in this condition (McGinnies, 1966).

The reason put forward for the latter's findings was either due to a "ceiling effect" or to the fact that the arguments were oral rather than printed. McGinnies reported elsewhere, however, "that a similar group of subjects who read the one-sided communication...were influenced to a significant extent" (McGinnies, 1965, p.92). Another reason for the weak findings for the audience which initially agreed with the message is the possibility that it is due to the mode of presentation - in this experiment, tape-recorded messages rather than printed messages (McGinnies, 1966). He believes that additional research should be carried out to determine whether there is an interaction between argument organization and mode of presentation.

In sum, the results with the Japanese students matched those found for the Americans.

As McGinnies states:

The fact that subjects in both Japan and the United States react in similar fashion to one-sided and two-sided communications suggests that the differences found here are probably applicable to other national groups as well, where cultural differences are even less pronounced.

One limitation of this study, is the possible confounding effect due to the use of university students as experimental subjects. Although most American studies also use university students as their subjects, and one can argue that this is simply standard practice, students in Eastern cultures such as Japan and Taiwan may have developed more of a "Western" style of logic during the course of their schooling. There is evidence that education

reduces cognitive differences between individuals from different cultures (Clausen, 1968; see also Segall et al., 1990). There is also evidence that exposure to foreign culture and business practices may affect the difference between cultures (Lauter, 1969; Pick, 1980; and Toyne, 1976; cited in Shaw, 1990). Other limitations will be discussed below

2.5.2 The Chu Study

2.5.2.1 Objectives and Hypotheses

Chu (1967) examined the persuasive effects of two- versus one-sided arguments with Taiwanese high school students. In effect, he attempted to test a number of suggestions made earlier by Hovland, Lumsdaine, and Sheffield (1949), in particular the suggestion that the differential persuasiveness of two- versus one-sided advertisements was due to the perception of *bias* in the communication. He also used inferential data to test another suggestion of theirs, namely, that people were less strongly motivated to rehearse the counterarguments when a communication is two-sided. The three principal hypotheses of the study were that:

- 1- Message receivers who perceive a bias in the communication will be less persuaded by a communication than subjects who do not. He defines perceived bias as "...as detection of omission of arguments unfavorable to the communicator's position. Such detection may lead the audience to question the fairness of the communicator, and raise doubts as to his intent" (Chu, 1967, p.244).
- 2- "...one-sided arguments are more likely to arouse detection of omissions than is a two-sided argument, and that this difference will be greater when the

subjects are familiar than when they are not familiar with the issue" (Chu, 1967, p. 244). This is based on the notion that when a message source fails to indicate the negative aspects of an issue - as in the case of one-sided messages - receivers are more likely to detect this omission. Moreover, this *ability to detect the missing unfavorable arguments* will be greater when the receivers are already familiar with the various sides of an issue (Chu, 1967).

As the author notes, the above hypotheses would imply that when receivers are already *familiar* with the pros and cons of the issue, two-sided messages would be more persuasive than one-sided appeals because the latter would tend to increase the detection of omissions. However, when the receivers are not familiar with the issues, the fact that two-sided messages do not offer a clear-cut argument means that one-sided argumentation may be more effective. This is, in fact, the essence of his third hypothesis.

The author also conjectured that one-sided arguments would tend to arouse more detection of omissions than their two-sided counterparts when the subjects are *initially opposed*. On the other hand, in the case of subjects *initially favorable*, there should not be as great a difference in the detection of omissions. But since a two-sided message in this case tends to raise *doubts* in the minds of the receivers, one-sided appeals should be superior. These hypotheses are essentially in line with those of Hovland et al. (1949).

2.5.2.2 Methodology

The subjects chosen for his experiment were sophomores in a boy's high school in Taiwan. Six classes were randomly assigned to four experimental conditions, two of which has two classes each. The various groups did not differ in terms of initial attitudes. Chu manipulated both familiarity and style of argument. The message was based on the creation of an international free trade zone in a part of southern Taiwan.

The style of argument treatment was in the form of a taped radio speech given by a university professor (a high credibility source; in fact, in the tape, an announcer briefly introduced the professor as a specialist on economic affairs.) In the one-sided argument, only arguments in favor of the free-trade zone were presented. While in the two-sided message, in addition to the positive arguments, the experimenter also indicated the negative arguments and then *refuted them*.

In the final step, a second questionnaire was given to the students to tap the terminal attitudes of the subjects, along with their perception of the level of argument omissions. The questions meant to capture this information were the following:

"Do you think the radio commentary has omitted any essential points?" and

"Do you think the proposed free trade zone in Kaohsiung Harbor should be started as early as possible?"

Among the response categories for this question were the following:

1 - wait until the pros and cons are carefully weighted;

2 - it should be started as early as possible;

3 - don't know.

This last question was used to assess the effects of the message. The author classified the subjects who marked the second choice as *endorsing* the plan. Subjects who marked off the first choice were classified as *not endorsing* the plan. No subjects chose the third option.

2.5.2.3 Results

Detection of omissions and main effects. Among the 101 subjects who detected essential omissions in the radio commentary, 29.7% endorsed the proposal; while among the 172 subjects who did not detect omissions, 52.3% endorsed the proposal. These findings represented a highly significant main effect and supported Hypothesis 1: namely, that the persuasibility of a message is an inverse function of the perception of bias by the audience (Chu, 1967).

Sidedness, familiarity, and detection of omissions. Hypothesis 2 was supported by the data. More than half (55.1%) of the receivers of one-sided messages detected omissions, while only 19% of receivers of two-sided messages detected omissions. However, the second part of the hypothesis, namely, that the detection of omission on the part of subjects exposed to one- or two-sided messages would be greater for subjects *initially familiar with the issues* was only supported among those *initially unfavorable* to the message. This interaction was not found for subjects who were *initially favorable* to the message.

As will be recalled, Hypothesis 3 proposed that two-sided messages would be more persuasible for subjects who are initially familiar with the issue, but a one-sided presentation

would be better for subjects initially unfamiliar with the issues. This hypothesis was supported only for subjects who were initially *unfavorable* to the message. For subjects who were initially *favorable*, the persuasive effects of one- and two- sided messages were the same under all conditions of familiarity. The author also demonstrated that it was the *detection of omissions* which was causing the differential effects of one- and two-sided messages on subjects initially opposed to the message.

The author also believes that his Taiwanese subjects

"were roughly comparable to the higher-education soldiers used in the original wartime experiment [by Hovland et al. (1949)]. The issue of the Pacific war used in the Hovland experiment was such that the higher-education soldiers were likely to be familiar with the pros and cons. If so, we may compare the Hovland findings on the higher-education soldiers ...with the findings on the familiarity groups in this experiment. The results were similar despite the use of different issues and possible cross-cultural diversities. In both cases, the two-sided arguments were found to be more effective among the initially opposed; the differences of 14% and 20% for the original and the present experiment respectively are significant at .06 and .07 levels. In both cases, no significant differences appeared between the two styles of arguments among the initially favorable" (1967, pp. 251-252).

2.5.2.4 Rehearsal of Counterarguments.

Another important part to his study was the "test" for the second explanation for the differential effects of two- over one-sided messages. As will be recalled, Hovland et al. also posited that a second possible reason for the superior performance of two-sided arguments for subjects initially opposed to the message is due to the fact that the subjects would be incited to rehearse the counterarguments, thereby rendering the message less persuasive (Chu, 1967). Although Chu did not test this hypothesis directly, he presented some inferential evidence based on the data.

To test this hypothesis, Chu used somewhat of an indirect way. He first of all assumed that the rehearsal of counterarguments would be carried out mostly by subjects who were initially unfavorable and by the subjects who were familiar with the pros and cons of the issue. In this event, he proposed that one way of testing whether rehearsal of counterarguments [the cognitive response approach] is operating, is to hold constant the detection of omissions and compare the one-sided and two-sided appeals in this subset of subjects. As he states "This would provide a test of the rehearsal effects independent of the effects of detection of omission. If rehearsal of counterarguments is operating to reduce the persuasive effects of the communication, we would expect the one-sided arguments to be less effective" (1967, p. 253). His results indicate that among the subjects who were initially unfavorable, familiar with the pros and cons, and who did not detect omissions, no significant difference was found between the one-sided and two-sided appeals in terms of persuasibility. But, as he points out "However, it could be that the subjects who tended to rehearse their own counterarguments were likely to be the ones who detected omissions. If so, when we compare the one-sided and two-sided arguments among those who did not detect omissions, we may be eliminating from each of the subgroups those who tended to rehearse the counterarguments. Thus, the effects of rehearsing counterarguments should be further tested by examining those subjects who detected omissions. If among those subjects the one-sided arguments are more likely to arouse rehearsal of counterarguments, than are the two-sided arguments, then we would expect the former to be less effective. The data show that among these subjects, the endorsements were 13% for the one-sided arguments and 28.6% for the two-sided arguments. The difference is not significant ($p = .70$), suggesting that the effects of rehearsing

counterarguments, if any, were probably no greater for the one-sided communication than for the two-sided communication" (p. 253). He goes on to add:

Whereas previous studies of the impact of forewarning...have resulted in inferential findings consistent with the hypothesis that rehearsal of counterarguments could lower the persuasive effects of a communication, the analysis presented above would suggest that so far as one-sided and two-sided arguments are concerned, the differential effects are more probably due to the mechanism of detection of omissions than to the rehearsal of counterarguments. It must be pointed out, however, that the hypothesis of rehearsal of counterarguments was not directly tested in the present experiment. Such a test would seem to be contingent upon the development of a valid measure of rehearsal of counterarguments while the subjects are being exposed to the communication. (p.254).

There are a number of limitations to his study - both from an internal validity point of view and from a cross-cultural methodology point of view. This essentially means that more questions are raised by the study than are answered by it. These are the issues to which we now turn.

2.5.2.5 Limitations of the Study

One major limitations to this study appears to be the fact that the author did not use unobtrusive measures of the detection of omissions in the messages. The fact that the second questionnaire contained both a question assessing the perception of omissions as well as the terminal attitude question may have biased the results (source of systematic error in the form of a leading question). In other words, presenting the first question may have primed the subjects to "reconstruct the message" in their minds and search for missing arguments. Also, the options presented as part of the second question may further bias the results: Subjects

who answered the first question in the affirmative would also tend to mark off the 1st option on the second question, or vice-versa.

Chu indicates that H1 was supported, namely, that the persuasibility of a message is an inverse function of the perception of bias by the audience. However, the fact that the omission of arguments was measured in an obtrusive manner and the fact that the measure of attitude is based on the detection of omissions, means that the terminal attitude and the measure of argument omission will be highly correlated (high level of collinearity). The same would apply for the second hypothesis. The very nature of the messages, the fact that the subjects were in a fairly involving situation, as well as the "leading" questions, may have operated to produce a strong relationship between sidedness of the message and detection of omissions. This, in the present author's opinion constitutes a serious threat to the internal validity of the study.

2.5.2.6 Different Conceptualization of the Mediating Processes

The mechanism centered on the detection of omissions appears to be based on a fairly extensive evaluation of the pros and cons of the message arguments; that is, it appears to be a form of central processing. This is further supported by the fact that the author uses a high credibility message source - a university professor - to present either one or two-sided arguments. In the correspondent attribution approach, one of the aims of the two-sided message is precisely to increase source credibility. Moreover, this mechanism does not require the same degree of involvement as detection of bias or detection of counterarguments to

operate (although, as the present study hypothesizes, it can also operate in a high involvement situation).

Chu's study does not deal with an advertising context. Moreover, it uses a refutational message, whereas most advertisements using this message strategy have tended to use the "support-plus-mention" type of two-sided appeal (but, see Kamins and Assael, 1987).

2.5.2.7 Differences in Terms of Results

Chu's findings with respect to the differential persuasiveness of two- versus one-sided messages were concordant with those of Hovland et al. (1949) and most studies in advertising only for the case of subjects who were *initially unfavorable to the position*. He had predicted that for subjects who were *initially favorable* to a position, one-sided messages would be more persuasive than their two-sided counterparts (in line with the findings of Hovland et al. for their less educated men).

As Chu noted, for those individuals who were *initially favorable to the position* the sidedness of the message did not make any difference in the persuasive effects of the message, even though those who heard the one-sided arguments tended to detect omissions more than the Ss who heard two-sided arguments. The author believes that this is due to a lack of motivation on the part of the subjects to question the communicator's fairness despite the obvious omissions. This may be due to a "ceiling effect" due to the high initial credibility of the source; it could also be due to the fact that the Taiwanese had less of a propensity to attribute this fairness to the "person."

Of greater interest to the current study is Chu's findings with respect to the rehearsal of counterarguments. Although these findings are based on inferences from the data, they appear to indicate that for Taiwanese subject, at least, the effects of rehearsing counterarguments are the same for one- and two-sided advertisements. As one may recall, Kamins and Assael (1987) had shown that the rehearsal of counter- and support-argumentation to be an important mediator of message sidedness effects. Could the difference be due to cultural differences in the *extent* or *weight* placed on cognitive responses? This, and the question of whether the Taiwanese, in contrast to North American subjects, had less of a propensity to attribute message fairness to the "person," are two of the key issues that the current study will investigate.

2.5.2.8 Comments on the Cross-Cultural Nature of the Chu Study

The study carried out by Chu attempted to test the theory of message sidedness effects in a non-western culture, in effect examining whether two-sided messages have a differential advantage over one-sided appeals among Taiwanese. At the same time he attempted to confirm earlier conjectures by Hovland et al. as to the underlying mechanisms of this persuasion strategy. The study is not a true replication of an earlier study in another culture. There are a number of important differences in the two studies which prevent the author from making a true comparison of findings in the two cultures. Among the differences, the following can be cited:

1- The subjects were different:

- they were of different ages, with the subjects in Taiwan being younger than

the soldiers in the Hovland et al. study. In the Swinyard (1981) study, it was shown that *age is a significant covariate to explain the effects of message sidedness* on advertisement credibility (although, as Chebat & Picard, 1988, point out, the results of age were ignored in drawing up the article's conclusions).

- they had different levels of education. Again, Hovland et al. had shown that education moderates the effects of message sidedness.
- Chu assumes that the Taiwanese high school students who were informed about the pros and cons of the issue are comparable to the higher-education soldiers. He only assumes that the latter were familiar with the pros and cons of the issue of an early end to the war. Thus, this is not a true experimental treatment.

- 2 - The settings and issues were not equivalent. The topic presented to the soldiers, namely, the question of whether there would be an early end of the war in Japan would appear to be far more involving to the soldiers (who might themselves be called to finish the fight with Japan) than the issue of creating a free trade zone in Taiwan to high school sophomores.

In conclusion, it does not appear that the Chu study is a true cross-cultural comparison. The two studies lack equivalence on a number of aspects such as subjects,

context, etc. Moreover, as Brown and Sechrest (1980) point out, it is important in a true cross-cultural study to maintain "exemplary methodological control" and adequate handling of internal validity threats.

Although Chu's study demonstrates the operation of the "detection of omission" mechanism among the Taiwanese and the relative advantage of two-sided over one-sided messages for subjects who were initially opposed to the position, it does not compare the *relative effectiveness of the message sidedness strategy* in the two countries.

Hepworth (1978) has pointed out a number of other problems which have plagued McGinnies and Chu in carrying out their studies. For instance, Chu found "an excessive amount of test anxiety among his Chinese subjects which may be attributed to the novelty of testing among students in Taiwan" (p.61). She notes that testing may be more readily accepted in western traditions than in certain other cultures. She cites McGinnies (1963, p.5) who feels that in certain other cultures testing subjects may represent an "unwarranted invasion of their privacy." She goes on to say that "McGinnies encountered this kind of reaction among Japanese students during his study of attitude change. A modal personality component of privacy was noticed among the Japanese students in that testing was considered an infringement on their privacy..." (1978, p. 61). Thus, it appears that in both of the above studies a greater amount of test anxiety was present than in the original U.S. studies.

Another problem with the McGinnies study dealt with the translations of the instruments and the persuasive messages (Hepworth, 1978). McGinnies has pointed out that the language consultants used tended to disagree over the proper translations of both the persuasive messages and the attitude scales. Although the experimenters thought that the best

style of written Japanese to use was the "soft" style, the Japanese translators adopted more of a "hard" style. The "hard" style was finally accepted for the experiment (Hepworth, 1978).

2.6 Cultural Differences in Styles of Persuasion and Reasoning

Other researchers also question whether the "two-sided" approach may be universally applicable. Referring to the greater effectiveness of two-sided persuasion, Glenn, Wittmeyer, and Stevenson (1977) state:

Most recent research suggests that such indeed is the case where those to be persuaded belong to the mainstream of the American culture (and presumably in the case of a number of other nationalities), but that in the case of some other national cultures, the "two-sided" approach, and more generally persuasion based on the presentation of facts, loses its efficiency in favor of different strategies" (p. 52).

The evidence which Glenn et al. refer to is that by Wedge and Muromcew (1965), Bronfenbrenner (1964), and Wedge (1968). Glenn et al., in referring to the research by Wedge and Muromcew on Soviet-American disarmament talks points out that the Soviets displayed a negotiation style "which proceeds from the general to the particular, from axioms to their implications, in the classic direction of deduction" (p.54). On the other hand, the American delegation took a much more factual and legalistic approach, proceeding from the particular to the general - in other words, an inductive style of negotiation. This difference between the Soviet and American style is most vividly described in a passage from Wedge and Muromcew which shows the resistance on the part of the Soviet delegation.

We propose that the discussion of technical details should be deferred until such time as we have agreed among ourselves on the fundamental, basic principles that would underlie a final agreement....We do not intend to allow a smokescreen of technical studies to be used as a cover by those who wish to evade a solution of the political question of banning all nuclear tests. (Wedge and Muromcew, 1965)

Bronfenbrenner's (1964) studies on the style of persuasion which were most effective with American or Russians also lends support for the above findings. As Bronfenbrenner (1964) stated:

At the most general level, perhaps the greatest contrast suggested by the results of the pseudo-experiments was the different power in the two cultures of exposure of facts versus feelings. In general, American respondents were influenced most by being presented with objective evidence....Quite the opposite was true of the Russians; if I wanted to communicate something about American outlook, I had to rely on emotion to carry the message. Communication was most successful when one spoke in the name of ideals and feeling, rather than invoking evidence and logic. The lofty principle had to come first; only then could facts be introduced, and even so, preferably as inevitable deductive necessities, rather than as empirically independent observations. (Bronfenbrenner, 1964, cited in Glenn et al., 1977, pp.56-57)

According to Glenn et al., the above passage suggests that there are three basic styles of persuasion: a factualistic-inductive, an axiomatic-deductive, and an intuitive-affective. The first one being preferred by Americans, while the last two being more effective with Russians (Glenn et al., 1977). These last two styles were also revealed in the study by Wedge (1968) on the communication patterns between United States Information Agency and Brazilian university students (1968). In sum, Glenn et al. (1977) have postulated "the existence of three basic styles of persuasive communication - and possibly also of cognitive development" (p.58) (see also Fisher, 1988).

The authors point out that the style of cognitive development is assumed to be the result of the interaction between the three general approaches posited by Glenn's (1973) general theory of symbol meaning: namely, (1) a subjective style, derived from the sharing of affective experience; (2) a co-subjective style derived from shared axioms and logical rules governing deduction; and (3) an objective style based on disciplined observation followed by induction.

Basing themselves on this background, Glenn et al. (1977) set about to test their hypotheses about persuasive styles. Their methodology consisted of studying the statements made by American, Soviet Russians, and English speaking delegates of Arab countries to the Security Council of the United Nations. The reason they gave for selecting the Arab culture for analysis is that experts in the Arabic cultures consider Arabic rhetoric to be dominated by emotional rather than by rigorous standards (Shouby, 1951; Hamadi, 1960; Patai, 1973).

The units of analysis which were selected were paragraphs in the written text of the minutes. Judges were told to rate each paragraph as being (1) factual-inductive, (2) axiomatic-deductive, (3) intuitive-affective, or (4) unclassifiable. The texts were from the minutes of the Security Council of the United States dealing with the 1967 Arab-Israeli war. Paragraphs of the minutes of the meeting were chosen as the unit of analysis and final results were compiled from those paragraphs on which all three judges agreed. Table 2.2 summarizes the findings.

Table 2.2
Results of the Glenn, Witmeyer, and Stevenson (1977) Study
on the Styles of Persuasion of Americans, Soviets, and Arabs

	Americans	Soviets	Arabs
Number of paragraphs agreed upon among judges	60/101 59%	45/118 38%	106/259 41%
Factual-Inductive Style	59/60 98% 197/216*	2/45 4% 14/237	1/106 1% 13/516
Axiomatic-Deductive Style	1/60 2% 8/216	38/45 84% 169/237	20/106 19% 143/516
Intuitive-Affective Style	0/60 0% 11/216	5/45 12% 54/237	85/106 80% 360/516

* Numbers appearing in denominators of figures in bold represent all the paragraphs characterized by any one judge.

The results thus confirm those of the earlier studies described above. Nearly all the paragraphs (i.e., those agreed upon by all judges) of the Americans were factual-inductive. The U.S.S.R delegates depended largely on an axiomatic-deductive style; while the Arab delegates made heavy use of emotions in their arguments.

Research which examined the relative use of comparative ads – a form of two-sided message - also points to differences in the use of this strategy. Hong et al. (1987), for instance, found that the Japanese make much less use of comparative ads than do the Americans. Their findings of greater emotionality in Japanese advertising also appear to support the notion that Japanese verbal and written persuasion attempts are less oriented to logical exactness, to reasoning out a problem, and to providing evidence in support of their position. Instead, they are more directed toward generating feelings (see also Mueller, 1992).

2.7 Summary

Chapter 2 has reviewed the research carried out on the message sidedness advertising strategy. Although some of the work was carried out as part of social psychological investigations, the major thrust of this chapter has been on advertising research. The findings demonstrated that, overall, the use of two-sided messages is an effective persuasion technique - at least in the North American context. A model was presented to account for the relative effectiveness of two- versus one-sided messages in an advertising context. The model was comprised of both cognitive and affective mediating mechanisms.

The chapter also examined the two major studies carried out with this type of appeal in other cultures. These studies were found to have important limitations from the perspective

of internal validity and cross-cultural methodology. Also, the fact that these were not advertising studies means that this research is not conclusive with respect to the applicability of this strategy across cultures. This is further reinforced by the review of findings on cultural differences in styles of persuasion.

CHAPTER 3

PROCESS THEORIES OF ATTITUDE FORMATION AND CHANGE

3.1 Introduction

This chapter and the next, delve in greater detail into the various process theories of attitude formation and change which have been used to explain the differential effects of two-versus one-sided messages. The models presented all share an important characteristic: They all "assume that attitudes are formed and modified as people gain information about attitude objects" (Eagly and Chaiken, 1993, p. 257). Hence, they are based on an information processing or cognitive approach to persuasion. All these theories posit that attitude formation and change occurs as a result of cognitive mediation rather than from the operation of motivational forces or processes such as would be found in, say, reactance theory (Eagly and Chaiken, 1984).

As we have seen in the last chapter, the process theories which have the most currency today as explanations for message sidedness effects are the *cognitive response* and *attributional* approaches. However, some of the earlier process models will also be reviewed in part because they permit us to examine initial attempts at developing cross-cultural models of persuasion. A second reason is the realization that the stages proposed in the earlier learning models (e.g., that by McGuire, 1972, 1985) are also required in order for a receiver

to carry out message-relevant thinking (Ratneshwar and Chaiken, 1991; cited in Eagly and Chaiken, 1993). As Eagly and Chaiken state:

"...the important point in our view is that from a broader information-processing perspective, the elaborative thinking emphasized in the cognitive response model should be viewed as a stage of processing that complements, rather than supplants, the reception processes emphasized in McGuire's two-step models" (1993, p.283).

3.2 The Learning Theories

Among these theories, Pechmann and Steward include the Yale Chain of Responses Model, McGuire's Information Processing Theory, Fishbein's Information Integration Model, and Fishbein and Ajzen's Theory of Reasoned Action. However, as will become evident later, the last two theories deal with processes which occur after the formation of beliefs and cognitive responses. Since message sidedness and refutation appear to achieve their impact by acting on the formation of beliefs and cognitive responses, Fishbein's theories will not be reviewed in this paper.

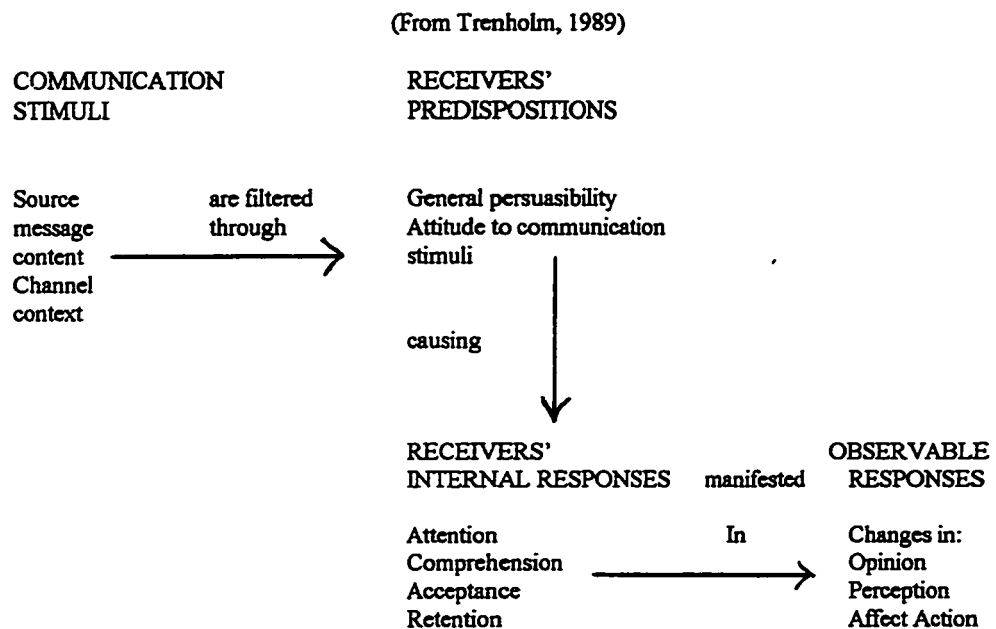
3.2.1 Yale Chain of Responses Model

The Yale Chain of Responses Model developed by Hovland and associates (1953), is depicted in Figure 3.1. Although this model has been largely replaced by models with greater explanatory power, the model has provided the impetus for the study of persuasion and has provided a foundation upon which the other models have developed. Also, the first wave of cross-cultural research was based on this model: for example the major research project carried out by Elliott McGinnies (McGinnies and Ward, 1971) for the U.S. Office of

Naval Research⁴, and the work by Diab (1965, 1966). For these reasons, the review will begin with this theory.

Figure 3.1

The Yale Chain of Responses Model



The chain of responses model is grounded in cognitive learning theory, but is not a theory per se. It is a stimulus-response model which assumes a one-way flow of influence - one representation of the "hypodermic needle" view of persuasion.

The originators of the model assumed that adopting a new attitude after exposure to a persuasive message is essentially a learning experience and that such learning is contingent

⁴ This project was carried out over a ten-year period and examined the effects of factors such as order effects, argument organization, media effects, personal involvement, source credibility, message sidedness, etc. on persuasion in six countries. The final report was produced by McGinnies and Ward (1971) and published by the National Technical Information Services. The report also lists all the specific publications emanating from the project.

upon the provision of appropriate rewards. From their perspective, attitude change is a result of *learning* new information that, from the recipient's perspective, is *believable* and personally *rewarding*. As Smith (1982) points out, however, the Yale theorists originally and erroneously assumed that learning and accepting new information would be correlated positively. As a consequence, they argued that the extent to which a person will be persuaded by a message is dependent on the following chain of *learning* responses: (1) attention to the persuasive message; (2) comprehension of its content; (3) acceptance of, or yielding to, what is comprehended; (4) retention of the position agreed to; (5) action in accordance with the retained agreement (refer to figure 2). Although they proposed these five steps, they focused most of their attention on the motivational factors affecting acceptance rather than on comprehension and the other stages (Smith, 1982).

The framework adopted by Hovland and his colleagues was based on the question "Who says what to whom and with what effect?" (Smith, Lasswell, & Casey, 1946). They examined the effects on attitudes of the following factors: the source, the message, the recipient, the channel, and persistence. In sum, according to the Yale chain of responses model, persuasive contexts (e.g., sources, messages, etc.) question a recipient's initial attitude, recommend the adoption of a new attitude, and provide incentives (e.g., promises to reduce an unpleasant drive-state such as fear) for attending to, understanding, yielding to, and retaining the new, rather than the old attitude (Petty and Cacioppo, 1981a).

A great deal of research has been carried out based on the Yale research paradigm. A complete review of this work is beyond the scope of this paper. For a comprehensive review of empirical studies carried out in an American context the reader is referred to

McGuire (1969). And for a fairly broad scope research effort aimed at testing the major hypotheses of the Chain of Responses model in a cross-cultural context, the reader is referred to McGinnies and Ward (1971).

This model has inspired two important traditions which form part of the modern advertising theories: McGuire's two stage mediation model and the cognitive response models of persuasion. These will be reviewed in later sections.

Researchers in the field of persuasion feel that the model has major limitations on account of some of its unrealistic epistemological assumptions (Smith, 1982). The approach of Hovland and associates is causal in nature. It suggests that the generative forces producing action are antecedent conditions (Smith, 1982). Causal communication behaviors refer to actions that are produced by some antecedent condition, and therefore may not be altered by human volition or choice (Smith, 1982, p.67). According to Smith, however, this does not represent the situation in many (if not most) persuasion situations. She believes that "much persuasive communication behavior is imbued with choice and thus is purposive in nature" (1982, p.68) as a result she feels that an actional or constructivist approach is more appropriate to most persuasion settings.

Tamilia (1977), citing Stone and Chaffee (1970), also points out that since the model "fails to look at the broader social dimensions of communication" it does not appear suitable for the study of persuasion from a cross-cultural perspective. As he further states:

At least one author (e.g., Chu, 1964) has suggested studying the persuasive mass communication process on a cross-cultural basis using the message effects research tradition. However, it seems that this approach does not lead to a better understanding of the process. Most content and structural variables already studied have provided equivocal results within a particular cultural setting; between-culture comparisons may result in even more confusion. (Tamilia, 1977, pp.31-32)

In sum, since the model does not fare very well as a model of persuasion, it is doubtful that it can serve as a basis for a cross-cultural model of persuasion.

3.2.2 McGuire's Two-Stage Mediation Model

The major theoretical modification of the Yale model was the two-stage mediation model of McGuire (1972). The model attempted to fill the gap that the original Yale approach left vis-a-vis the relationship between comprehension and acceptance. The model also attempted to explain the effects of various personality traits on the mediators of attitude change and on persuasibility in general (Smith, 1982).

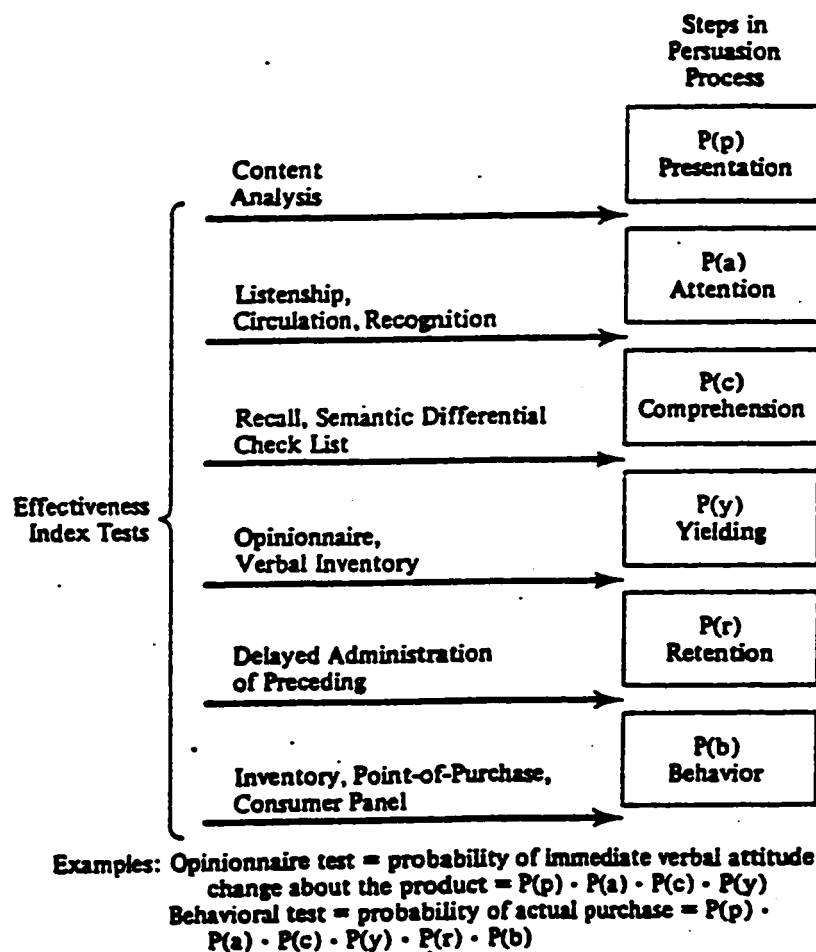
The effects of personality on persuasibility have always been characterized by complex and (apparently) inconsistent results (O'Keefe, 1990). The effects of self-esteem is a case in point. Nisbett and Gordon (1967) found a positive relationship between self-esteem and attitude change, while Janis (1955) found a negative relationship. Others have found U-shaped functions. Cox and Bauer (1964) found an inverted U-shape, while Silverman (1964) found that attitude change is minimized at moderate levels of self-esteem. Thus, findings are inconsistent and confused (for discussions, see Romer, 1981; Skolnick and Heslin, 1971). McGuire's model offered an improvement over the former approach in explaining these effects.

As depicted in Figure 3.2, McGuire visualized the social influence process as consisting of a six-step Markov Chain. For attitude change to occur, six successive stages must occur, each dependent on the previous step as a necessary but not sufficient condition (McGuire, 1968a). Although McGuire acknowledges the existence of these six mediators, in

order to "facilitate exposition and experimentation" he adopted some simplifications. In essence, he excluded the first and the last two steps, and combined attention and comprehension into a new factor - reception. The second factor was yielding; hence, the two-stage mediation model. The above simplifications - what McGuire refers to as the "abbreviated systems theory of the attitude change process" - was the basis for three postulates.

Figure 3.2

McGuire's Information Processing Model of Persuasion
(From McGuire, 1972)



The first postulate, the multiple-mediation assumption (for practical purposes, however, a dual-mediation assumption) simply states that any independent variable in the communication situation can affect the attitude change process *by influencing any one of the six mediational steps* (or the two-steps if the abbreviated version is considered). This prevents what had traditionally been an over-emphasis on the yielding mediator.

The second postulate in essence states that *techniques which enhance one step may inhibit another*. Humor, for example, may increase attention or acceptance, but decrease comprehension or retrievability (Trenholm, 1989) as seen in Table 3.1. Also, those characteristics of receivers that make for greater reception of a message tend to be negatively related to yielding.

Table 3.1

The Differential Effects of Humor on the Stages of Information Processing
(Adapted from Bagozzi, 1986)

Stage of Processing	Effect of Humor
Perception ↓	1. Attracts attention. May also serve to hold attention throughout the presentation of the Communication.
Comprehension ↓	2. Tends to detract from a literal understanding of Ration product benefits. But gives a global, intuitive understanding. Overcomes resistance to sensitive person issues.
Information Integration ↓	3. Not well suited for cognitive content but can facilitate affective learning. May serve as a distractor to prevent counterargumentation.
Yielding and Preference Formation ↓	4. Helps develop positive feeling for overall brand if well focused. But not particularly suited to developing Feelings toward specific product attributes. Involves audience with ad and product/brand to high degree
Intentions	5. For impulse items, may stimulate intentions to try product. But generally has no differential advantage or disadvantage on this stage.

The third postulate - the situational weighting assumption-states that the relative importance of the two mediators of attitude change will be a function of the persuasive communication situation (Smith, 1982).

More recently, McGuire (1985) has proposed a 12-step model of persuasion depicted in Table 3.2 below. He felt that the simple four-step model, while essentially correct, was not detailed enough to be of practical use in understanding persuasion.

Table 3.2

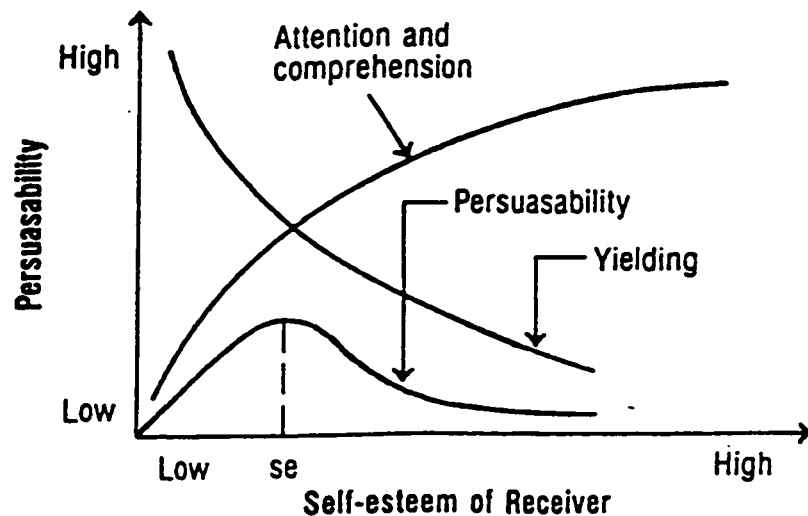
McGuire's 12-Step Model of Information Processing
(From McGuire, 1985)

STEP	EXAMPLE
1. TUNING IN	"Let's turn on the TV. There's supposed to be some special on."
2. ATTENDING	"Look, isn't that Tom Cruise and Heather Locklear?"
3. LIKING	"Hey this is pretty interesting. They're talking about physical fitness and nutrition."
4. COMPREHENDING	"They say that Americans need to exercise more and cut down on fats and cholesterol."
5. GENERATING RELATED COGNITIONS	"You know I never walk anymore. And we do eat a lot of junk food."
6. ACQUIRING RELEVANT SKILLS	"Look, Tom's showing how to make a low cal pizza out of tofu. And Heather's demonstrating exercises you can do in your car. Looks easy."
7. AGREEING	"You know, they've got something there, I think we should start a fitness program."
8. MESSAGE STORAGE	"I've got to remember to exercise and eat sensibly."
9. MESSAGE RETRIEVAL	"It's lunch time. Should I order the hot turkey sandwich with mashed potatoes and gravy? Oh, I just remembered I'm trying to eat sensibly."
10. DECIDING	"I guess I can try improving my nutrition right now."
11. ACTING	"Let me have the spa special with sprouts and glass of mineral water."
12. CONSOLIDATING	"I feel a whole lot better. I think I'll get everyone in the office to try the program."

McGuire's theory brought about a number of improvements. For one, it gave attention and comprehension their due importance. By specifying two intervening processes (mediators) - reception and yielding - it recognized the empirical difficulty of separating attention and comprehension within a persuasion study.

McGuire pointed out that personality-persuasibility hypotheses have usually failed to take into account mediating processes prior to yielding and have thus failed to consider that personality variables might relate to the capacity to receive information as well as the likelihood that recipients yield to what they receive. In the case of self-esteem, the higher the audience scores on this variable, the greater the likelihood that the message will be attended to and comprehended. Those higher in self-esteem tend to be more outgoing, to be exposed to more sources of information, to process information more accurately, and so on. However, individuals higher in self-esteem will yield with greater difficulty since they tend to know more pro and con arguments, to be more questioning, and to counterargue more. This will lead to a curvilinear relationship as shown in Figure 3.3.

Figure 3.3
The Relationship Between Self-Esteem of Receiver and Persuasibility
(From Bagozzi, 1986)



The information processing model has additional power to account for persuasibility because of the assumption that the relative importance of the reception and yielding mediators of personality variables changes with the nature of the situation. Self-esteem, for example, might *in general* have its impact on persuasibility through both reception and yielding and therefore would most often be nonmonotonically related to persuasibility in the form of an inverted U. Yet in some situations, (e.g., complex, well-argued messages), the impact of self-esteem would be primarily a function of its effect on reception, thus showing a positive linear relationship as found by Nisbett and Gordon (1967); while in other situations its impact on yielding would be of most importance and results would be similar to those found by Janis (1955). McGuire (1968b) proposed that such *personality-situation* interactions account for the inconsistencies observed in the self-esteem-persuasibility relationship (Eagly, 1981).

A study by Bither and Wright (1973) supports the above view of the varying importance of the mediational processes as a function of situational factors in the case of self-confidence. The situational factor tested in his experiment was level of distraction. This factor was believed to influence reception of the message, more specifically attention and comprehension, and counterarguing. They hypothesized that under low levels of distraction the relationship between self-confidence level and attitude change should be governed primarily by differences in counterarguing since the low levels of distraction should have a minimal effect on reception of the message for all levels of receiver self-confidence. A negative linear relationship should be found in this situation. As distraction increases, the reception mediator starts to become more important. As a result, distraction begins to seriously impede reception for receivers with low levels of self-confidence and little attitude

change should occur. Individuals with high levels of self-confidence should also experience little change. Although these individuals would still be adequately attending and comprehending the message, the higher levels of distraction would not significantly attenuate their higher levels of counterarguments. The group which should experience the highest level of attitude change should be the receivers with moderate self-confidence. Hence, a curvilinear relationship is expected. Results supported these hypotheses. First of all, the relationship changed from negative linear to curvilinear as the amount of visual distraction increased. And, secondly, differences in self-confidence did influence the effect of distraction in modifying receiver attitude structure. Individuals with medium self-confidence, and to a lesser extent, persons with high self-confidence, demonstrated a positive change under conditions of distractions. This facilitating effect was greatest with a visual distraction of moderate intensity (Bither and Wright, 1973).

Although McGuire's hypotheses provide us with additional tools for understanding the effects of personality factors in persuasibility, according to O'Keefe (1990) the problem now becomes one of understanding how the persuasion-enhancing and persuasion-inhibiting effects of a given personality variable balance out in any given case. Many different *other* factors may influence which effects predominate. This is probably the reason why only moderate empirical support for the effects of McGuire's postulates on the personality/persuasibility relationship (including self-esteem) have been found in the social psychological literature (Eagly, 1981; see also Shuchman and Perry, 1969). It should be pointed out, however, that the present study is more concerned with the impact of cognitive personality variables on information processing than on general persuasibility.

There are other problems with the model, however. For one, it is a very linear model. It emphasizes that all the steps must be completed in order for persuasion to occur. If any of the links are broken or incomplete, subsequent steps will not occur. But in real life, steps may sometimes be skipped. For example, messages may occasionally affect attitudes or behavior without comprehension, and decisions may be made without information retrieval (Trenholm, p. 87). Steps may also reverse. In selective exposure, for example, agreement determines exposure, rather than the other way around. Nevertheless, as Trenholm (1989) states: "for many persuasive situations the 12 steps follow one another in the order McGuire suggests" (p.58).

In conclusion, McGuire's model, although an improvement on the chain of response approach, still suffers from many of the shortcomings of the latter and cannot by itself provide a good basis for modeling cultural effects on persuasion. This is echoed by Tamilia (1977, pp.35-36) when he states:

...it is debatable whether or not the model in its present form is capable of furthering the exploration of the persuasive mass communication process on a cross-cultural basis.

In an attempt to adapt it for cross-cultural work, Tamilia (1973) gave the information processing model a cross-cultural perspective and used it as a building-block for his source moderator model (1977). This framework, to be discussed in a later section, was aimed primarily at explaining source effects on a cross-cultural basis.

As can be seen in Table 7, McGuire's (1985) revised model included a step (step 5) which focused on the cognitions that are generated by the receivers themselves as they process persuasive messages - the cognitive responses. In this model, McGuire explicitly recognized the importance

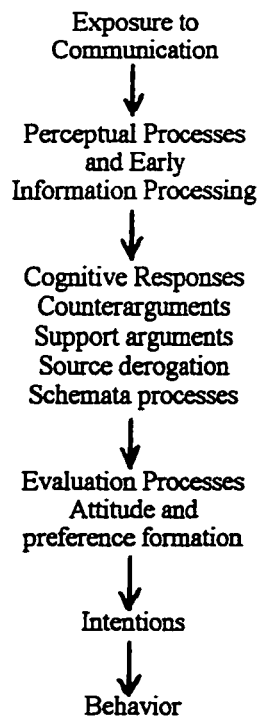
mediating role played by the receiver's own thoughts in the attitude change process.⁵ This is the topic to which we now turn.

3.3 The Cognitive Response Approach to Persuasion

3.3.1 Active Role for the Message Recipient

Cognitive response analysis, first formally proposed by Greenwald (1968a), contends that the persuasive effects of a message and external factors such as source credibility, audience involvement, repetition, etc., all depend for their action on the amount and kinds of thought that they provoke in the recipient (Fiske and Taylor, 1991). The mediating role of cognitive response is shown in Figure 3.4 below.

Figure 3.4
The Cognitive Response Model
(From Bagozzi, 1986)



⁵ Although Hovland and associates did not explicitly incorporate cognitive responses as a mediator of attitude change, they did recognize that cognitive processes occurred between message reception and attitude change.

This approach encompasses both a theoretical and methodological perspective. Theoretically, it postulates that attitude change takes place as a result of the elaboration of various cues provided by a persuasive communication such as advertisements. One of the major assumptions of this theory is that the target of the communication is active in contrast to other theories which hold that the recipient is passive. As an individual attends to and processes a persuasive message and peripheral cues, the person will generate a series of cognitive responses ranging from simple supporting or Counterarguments to role-taking and constructive operations (MacInnis and Jaworski, 1989). The number and "mix" of these cognitive responses will ultimately determine attitude change.

According to Petty, Ostrom, and Brock (1981), the cognitive response approach is not proposed as a fifth competing approach to attitude change (others being the learning, perceptual, functional, and consistency) - *rather, it is viewed as complementary*. As they point out, it has its roots in other approaches. Each of the four traditional approaches can be discussed in cognitive response terms. However, judging from its role in theories such as that of Petty and Cacioppo (1981a, 1986) and Olson, Toy, and Dover (1982), it seems that it is also perceived by some as a stand-alone theory - an independent approach to attitude change.

From a methodological perspective, cognitive response analysis proposes a technique for assessing and measuring the various types of cognitive responses generated. The interested reader can refer to Wright (1974) for a description and critique of the thought-monitoring technique.

Traditional persuasion theories placed a great deal of emphasis on how variables outside the recipient such as message content, credibility of the communicator, or type of communication channel affected the learning of message facts and arguments (Eagly 1974; Hovland, Janis, and Kelley, 1953; Hovland and Weiss, 1951; McGuire, 1968; 1969 as cited in Brock and Shavitt, 1983). In the cognitive-response approach, on the other hand, the effects of these external or situational variables on beliefs and attitude change are believed to be brought about by the recipient's articulation and rehearsal of his/her own idiosyncratic thoughts (Brock and Shavitt, 1983). In essence, the recipient attempts to relate new information to his/her existing knowledge about the topic. In doing so, the person may consider much cognitive material that is not in the communication itself. Brock and Shavitt cite a study by Padgett (1982) as evidence that such self-generated thoughts must be at the source of attitude change - even in the case of unintelligible messages.

The approach of considering the audience as an active information processor was able to account for findings that could not adequately be explained by the learning theory explanations - findings that showed that differences between individuals or between experimental treatments in the persuasive impact of a given communication were unrelated to differences in the degree of learning of the information content of the communication (Anderson & Hubert, 1963; Greenwald, 1968b; Hovland, Janis, & Kelley, 1953; Insko, 1964; Miller & Campbell, 1959; Watts & McGuire, 1964). The problem and its suggested solution were stated as follows (Greenwald, 1968a):

It is widely accepted that cognitions bearing on the object of an attitude form a major component of the structure of the attitude toward that object...Since the individual is not born with...cognitions, but acquires them, there seems to be no reasonable

alternative to the assumption that cognitions bearing on attitude objects are learned... Rehearsal and learning of cognitive responses to persuasion may provide a basis for explaining persisting effects of communications in terms of cognitive learning [pp.148,149].

3.3.2 Support for the Mediational Role of Cognitive Responses in Persuasion and Advertising.

Greenwald (1981) indicated that confirmation of the importance of viewing the recipient as an active information processor has been obtained by the convergence of several types of evidence. Using the method of listed thoughts it has been found that (1) the audience member's thoughts are often very rich in content that neither originate in nor agrees with the content of a just-received communication, and (2) the evaluative content of listed thoughts serves well to predict immediate and delayed posttest opinion responses (e.g., Brock, 1967; Greenwald, 1968b; Wright, 1974). Role-playing methods have been used to demonstrate that people attach special importance to their own thoughts relative to those of a comparably expert other (Greenwald & Albert, 1968). Last, in experiments using distraction procedures, persuasive effects are consistent with the notion that the distraction interferes with the recipient's active cognitive contribution to the persuasion process. (see, e.g., Petty & Brock, 1981 for a review of research on thought disruption and persuasion)

Support for the notion that cognitive responses mediate the effects of advertising content on beliefs, attitude, and behavioral intention elements of cognitive structure comes from a number of studies (e.g., Edell and Mitchell, 1978; Olson, Toy, and Dover, 1982; Hastak and Olson, 1988). Edell and Mitchell found a statistically significant relationship between a weighting of the number of support arguments minus the number of

counterarguments and attitudinal measures (i.e., attitudes toward the brand, attitude toward purchasing and using the brand and behavioral intentions.). In the study by Olson, Toy, and Dover mentioned earlier, brand-related cognitive responses were shown to mediate ad effects on beliefs about individual brand attributes as well as on more global measures of brand attitude and purchase intentions. However, Olson et al. treated traditional, global measures of counterarguments and support arguments as mediators of beliefs about particular brand attributes. Hastak and Olson (1989) carried out a more compelling and theoretically appropriate test of belief mediation by treating only those cognitive responses that are targeted at a particular attribute as the mediators of ad effects on beliefs about that attribute. By overcoming three methodological limitations that existed in these previous studies, namely, (1) failure to establish parallel treatment effects on the cognitive response and cognitive structure variables, (2) failure to control for the fact that processing goals of recipients might have influenced the type and extent of cognitive response mediation, and (3) failure to measure and control for the effects of cognitive response measurement on cognitive structure measures, they were able to show "that brand-related cognitive responses are the primary mediators of ad effects on cognitive structure variables" (p.444). However, as they point out, these findings held only for recipients who had a brand-processing goal. For those individuals with an ad evaluation goal, cognitive responses to both the brand and the ad acted as independent mediators of cognitive structure variables; with each cognitive response mediating about "equal amounts of the message-induced variation in the cognitive structure variables" (p.444).

3.3.3 Persuasiveness of Self-generated and Self-targeted Cognitive Responses

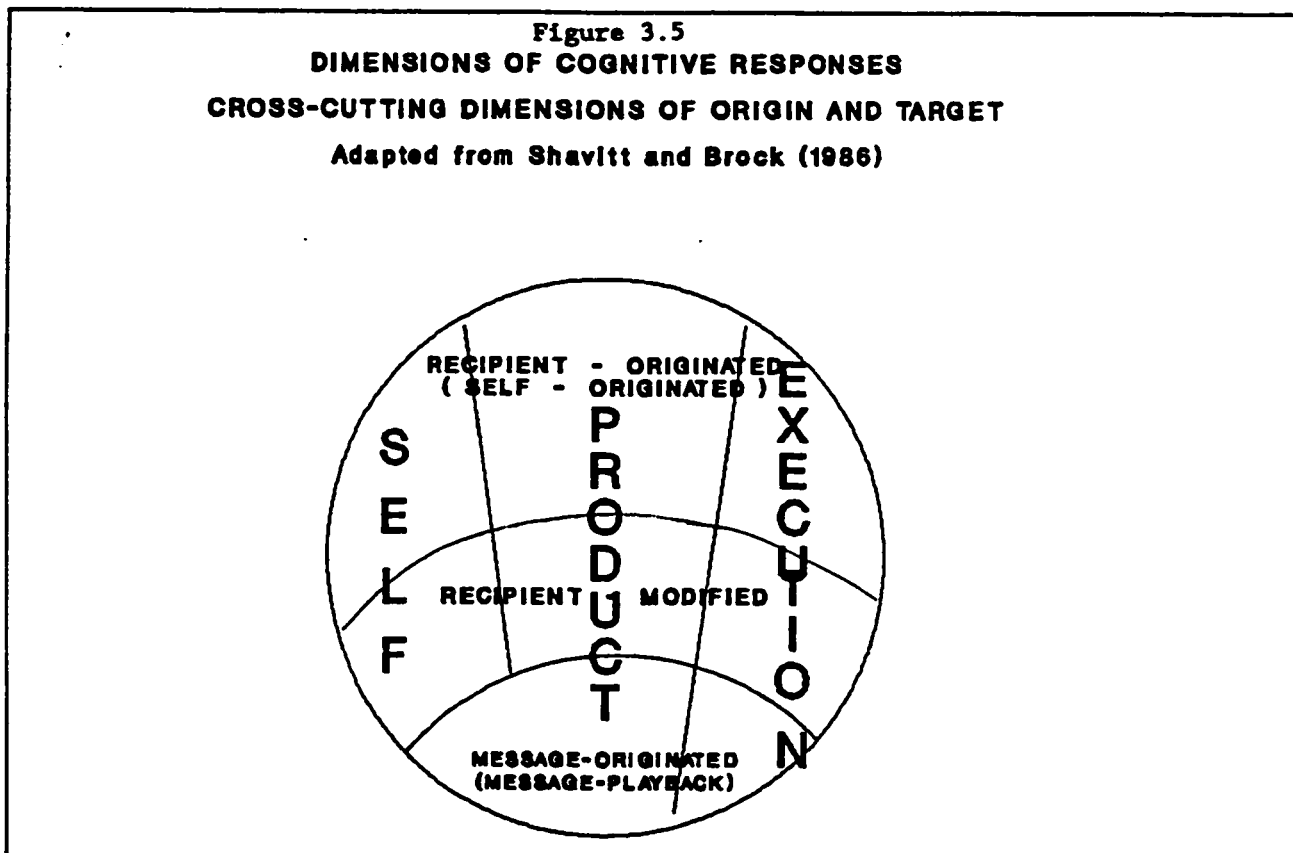
Shavitt and Brock (1986, p.150) have broadly defined cognitive responses as "the thoughts and ideas evoked [in the message recipient] by persuasive messages." Such a definition would, of course, include the full range of thoughts and ideas or, more generally, beliefs that individuals will generate concerning an advertising appeal. However, they point out that the theory "emphasizes the role of *own thoughts* in determining the immediate and persisting acceptance of a persuasive message" (Brock and Shavitt, 1983, p. 105, emphasis our own). That is, it is the cognitive responses with *own thoughts*, in contrast to cognitive responses with message elements (i.e., simple repetition of message elements) that has the greater persuasive impact. As Brock and Shavitt (1983, p. 105) state:

Cognitive response theory suggests that unique, idiosyncratic responding will increase persistence of message acceptance.

Unfortunately, prior to the work of Shavitt and Brock (1986), little distinction was made when discussing cognitive responding in terms of the degree to which the *self* was involved in *generating* and/or as the *target* of an individual's thinking. instead, "...analysis of cognitive responses has been limited to their polarity, defined as their favorableness/unfavorableness toward what is advocated by the message" (1986, p. 150). That is, when discussing cognitive responses, the focus was on Wright's categories of Counterarguments, support-arguments, and source derogations.

Shavitt and Brock (1986) shed some light on the nature of cognitive responses and the particular aspects or dimensions of the responses which could account for their greater

persuasibility. After reviewing a number of studies which showed that cognitive responses either invoked by the Self or targeted toward the self play a key role in persuasion, they proposed a typology of cognitive responses to account for the self as possible origin and target of cognitive responses. Figure 3.5 below represents their framework which integrates *origin* and *target* as cross-cutting dimensions of cognitive response.



The figure shows the two-dimensions upon which the framework is based: namely, source of the cognitive response and target of the response. As can be seen, the bottom sector of the graph represents thoughts which are mere playbacks of elements of the message. At the next higher level are the recipient-modified thoughts. These can be either reactions to a message, inferences based on elements of the message, or additional illustrations of material

in the advertisement. The largest sector of all consists of the responses which originate entirely with the recipient - that is, the self-originated thoughts. The authors also invoke Greenwald's (1968) findings as additional support for the greater number of self-originated cognitive responses.

The other dimension is seen superimposed on the first. Two features are especially noteworthy: First of all, the fact that the most common *target* for self-originated thoughts appear to be the advertised product. Secondly, the fact that thoughts targeted at oneself (e.g., one's own concerns, beliefs, experiences) cannot be mere playbacks of the commercial.

According to the authors, "The self in cognitive responding can be investigated in the context of this cross-cutting framework, by focusing on either or both dimensions" (1986, p.154). Basing themselves, on this framework, the authors hypothesized and confirmed that "self" thoughts instigated by a commercial are more persuasive, as well as more predictive of attitude, than other cognitive responses - *regardless of whether the focus is on the self-as-origin or on the self-as-target*.

3.3.4 Reasons for the Superiority of Self-Generated and Self-Targeted Thoughts

Perloff and Brock (1980) have advanced an explanation for the superiority of own-thought to message argument rehearsal. Earlier work by Greenwald (1968) and Slamecka and Graf (1978) had shown self-generated responses to be more influential than those generated by another subject. According to Perloff and Brock (1980, p.82):

...people have a tendency to value products and aspects associated with the self; consequently, they attach value to their *own* cognitive responses to persuasive communications. Because these cognitive responses "belong to" or are associated

with the self, they accrue more value and exert more influence than the arguments contained in the message

This tendency is termed "ownness bias" by the authors. Both territorial and non-territorial motives are thought to give rise to this bias. With respect to the former motive, for instance, they point out that an individual tends to value his personal space even though this space may be identical to that of others. As they state:

We prefer our own bed, even though it is the same as other beds in the barracks or dormitory. We prefer our own place or chair at table. We prefer our towel, although it is identical to your towel. If *external* objects associated with self can become so coveted, it is not surprising that internal extensions of the self, such as thoughts, dreams, fantasies, and the like, can be accorded special value. Coveting and protecting personal space extends, we assume, to cognitive components of that space. A territorial perspective is sufficient to account for an "ownness bias." (1980, p.82).

A number of non-territorial motives are also proposed as explanations as to why individuals "assign greater weight to mental products that they felt they generated themselves" (1980, p.82). Psychoanalytic theories, for instance, have explained the egocentric tendency on the basis of an individual's propensity to value extensions of the self. Similar to this approach is that based on Kohlberg's contention that people have an intrinsic tendency to value like-self objects and traits.

Another approach to explain the "ownness bias" is centered on the theory that individuals have a need to feel unique, distinctive, and different. Brock (1968), for instance, proposed commodity theory which posits that individuals value scarce and unavailable objects simply because of their *rarity*, regardless of whether this scarcity brings with it a monetary

reward or demand. This affinity for scarce resources apparently arising from its ability to enhance one's uniqueness. In a similar vein, Snyder (1992) and Fromkin (1968, 1970, 1972) and Snyder and Fromkin (1980) believe that individuals esteem resources associated with the self because they satisfy the need to perceive the self and its associated attributes as unique; that is, unique vis-a-vis other members of their society. As Perloff and Brock (1980, p.83) state:

Uniqueness and commodity theory suggest that own-thought rehearsal is more persuasive than message-argument rehearsal because people place a greater value on products associated with themselves (their own thoughts) than on exogenous products (such as arguments contained in a message). In essence, people may view their *own* thoughts as more unique, original, creditable, and of greater value than arguments contained in *someone else's* persuasive message. Studies by Greenwald (1968) and Slamecka and Graf (1978) lend support to this position.

The authors point out, however, that individuals will vary in their "uniqueness motivation." This will have important implications, according to them with respect to the differential persuasibility of individuals. As they state:

...individuals who have a strong need to be unique may be more sensitive to their own cognitive responses than individuals low in uniqueness needs. Subjects high in uniqueness needs should be especially motivated to regard their thoughts about a message as "unique, and distinctively their own." They should attach greater value and respect to these thoughts and may even be more confident about their cogency and intellectual value than subjects low in uniqueness needs. As a result, cognitive responses should predict attitudes better for these subjects than for subjects low in uniqueness needs. (1980, p.88)

3.3.5 Some Caveats on the Cognitive Response Approach

As Eagly and Chaiken (1984) have pointed out, the approach has provided valuable insights on the cognitive mediation of the effects of only a limited number of distal persuasion variables and "does not constitute a general theory of persuasion" (p.287). Specifically, the approach has been useful to explain persuasion variables "that seem intuitively to be clearly related to recipients' abilities or motivation to engage in message-relevant thinking (e.g., distraction, involvement, message repetition)" (p.284). "Clear-cut predictions are limited to a relatively narrow class of persuasion variables that affect extent of processing when these variables are crossed with argument strength or perhaps with other variables affecting the valence of message recipients' thoughts" (p.287). This seems, however, to apply to the findings regarding two-sided versus one-sided appeals. Such appeals have been shown to interact with the audience's educational level, the audience's familiarity with the issue, and the audience's initial opinion on the topic - all variables which influence the ability or motivation to process message-relevant thinking. As was seen in the review of research on message-sidedness in advertising, the cognitive response theory is very powerful in explaining such effects.

Research thus supports the greater validity of the cognitive response model over McGuire's information-processing model - at least for the class of variables that Eagly and Chaiken (1984) have indicated (see Petty, Ostrom, and Brock, 1981). Moreover, the theory partly overcomes one major weakness of the Yale chain-of-response and McGuire's model, namely, that people were not active in the persuasion process, reacting to persuasive messages in a stimulus-response fashion. Cognitive response "suggests that people are, in fact,

active agents generating their own messages in response to incoming information, that people respond to messages they create for themselves" (Smith 1982, p.218). As she further states:

Greenwald, of course, broke with this mechanistic tradition, preferring to emphasize what people "do with" messages, rather than what messages "do to" people. Thus, his cognitive response approach focuses on people as choice-laden, self-directed agents who respond to their personalized interpretations and goal-oriented cognitive responses to externally produced messages. For that reason, we believe the cognitive response model is the most valuable theoretical contribution arising from the Yale model. Certainly, Greenwald's approach is quite compatible with our own action-oriented approach to persuasive communication. (p.237)

Since the cognitive response approach has been the pre-eminent theory used to explain the persuasive effects of message sidedness and refutational vs non-refutational messages - the focus of the present study - as well as a number of other message content and structural factors (e.g., repetition, the use of rhetorical questions, etc.), the *cross-cultural* implications of this theory and information processing in general will be examined in detail in chapter 5. However, prior to examining the cross-cultural implications of cognitive response theory, it is essential to examine how cognitive responding forms part of modern theorizing in attitude formation and change and the role of individual difference variables in moderating cognitive responding.

In sum, the cognitive response mechanism has been shown to be a critical mediator of persuasion effects. It has greater validity than the previous theories and, moreover, it integrates the notion that message recipients play an active role in the persuasion process. Related to this, are the findings that cognitive responses owe their effectiveness to the fact that the "Self" is implicated in the processing of the cognitions. That is, at least in a North

American setting, individuals put more weight on *self-relevant cognitions* because these allow them to express their uniqueness.

3.4 Cognitive Response Theory and the Dual-Process Models of Persuasion

Process theories of attitude formation and change have evolved into the "dual-process" models. These models recognize that "people may adopt attitudes on bases other than their understanding and evaluation of persuasive argumentation (Eagly and Chaiken, 1993, p. 305). That is, persuasion may also occur without argument scrutiny and may occur, instead, via *peripheral* or *heuristic* modes.

Perhaps the two most popular models among researchers over the past decade have been the elaboration likelihood model (ELM; Petty and Cacioppo, 1981a, 1986) and the heuristic-systematic model (HSM; Chaiken and Eagly, 1983; Chaiken et al., 1989; Eagly and Chaiken, 1993). Both of these models incorporate the cognitive response approach in their frameworks as part explanations of the "systematic" component of their models.

Aside from these dual-process models, the cognitive response approach is also an integral part of the Olson, Toy, and Dover (1982) theory. Each of these models will now be reviewed.

3.4.1 The Elaboration Likelihood Model Revisited

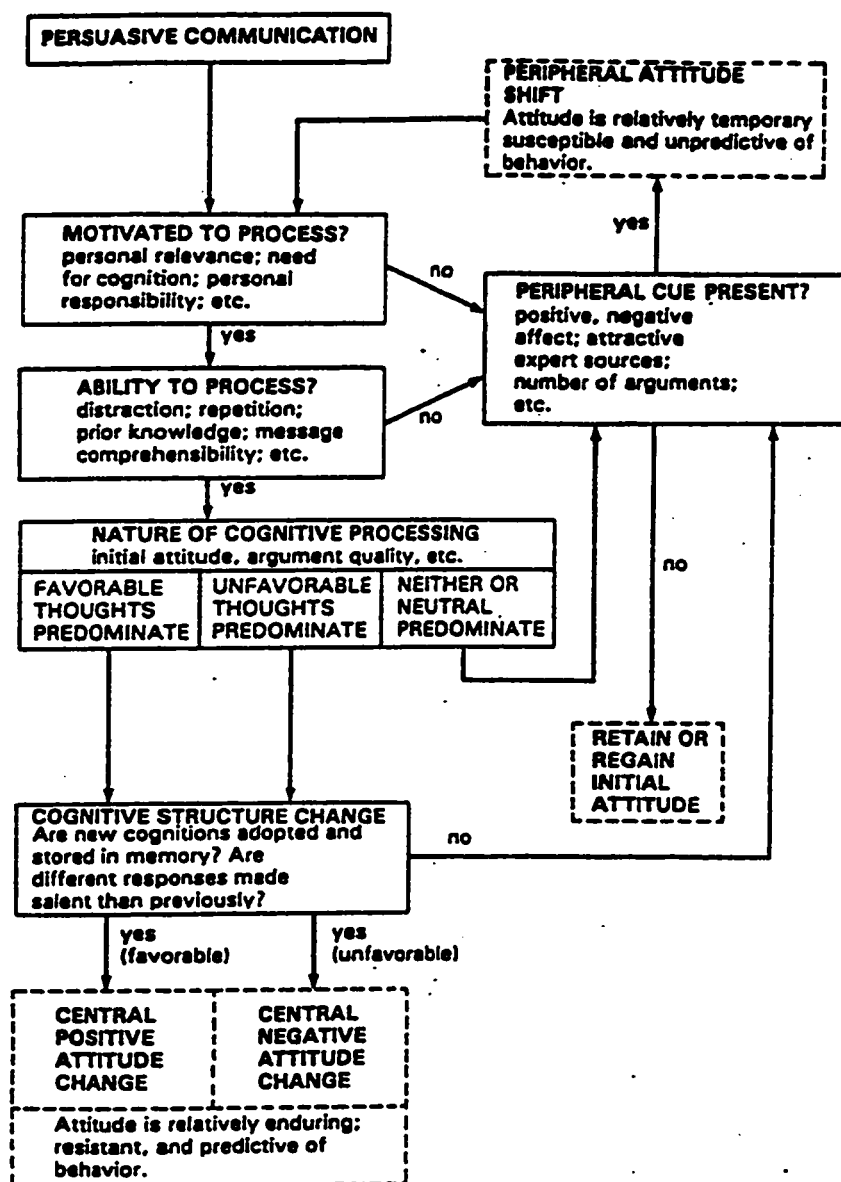
The essence of Petty's model is given in Figure 3.6. According to this model, when the receiver has both the motivation and the ability to process the message, various thoughts may be generated. These thoughts may be affected by variables such as the quality of the arguments presented and the person's initial attitude on the topic. Only when the elicited thoughts produce a lasting change in the underlying cognitive foundation of the attitude can there be an enduring attitude change. Thus, in order to have relatively permanent attitude change, both the number of favorable and unfavorable cognitive responses generated as well as the amount of rehearsal of these thoughts will determine whether or not any new cognitions will be stored in memory. When the new cognitions stored in memory are more positive than those available prior to message exposure an enduring positive attitude change (persuasion) is likely; and when the new cognitions stored are more negative than those available prior to message exposure, an enduring negative attitude change (boomerang) is likely.

In terms of advertising, effective commercials will communicate information that is central to the true merits of the brand and elicit verbalizable thoughts reflecting acceptance of this information.

Petty's cognitive response theory is similar to the learning theories. The major difference is that individuals will evaluate or critique persuasive messages and will therefore generate and remember thoughts in favor of (or opposed to) the advocated position or brand. These thoughts then mediate changes in attitude.

When motivation or ability for elaboration is low, attitudes can still be formed and changed but through a different mechanism than central processing. This route is known as peripheral processing. It includes a number of processes that can cause attitude change without a subject having to scrutinize the arguments in the message: heuristic processing, classical and operant conditioning, and social role mechanisms (Eagly and Chaiken, 1993).

Figure 3.6
Elaboration Likelihood Model of Persuasion
(From Petty and Cacioppo, 1986)



The Elaboration Likelihood Model sums up much of our previous discussion of information processing. In emphasizing that the receiver who takes the central route must be motivated to change, must be able to process information, must generate favorable thoughts, and must store these thoughts, the model incorporates the attention, comprehension, acceptance, and retention steps in the Yale model, and, by extension, the more elaborate steps posited by McGuire. By demonstrating that different communication variables (message relevance, distraction, repetition, and so on) become relevant at different points in the process, it reminds us that persuasive techniques and information processing steps interact in complex ways. By focusing on cognitive elaboration it reiterates the cognitive response position. And in its inclusion of the peripheral route it incorporates insights from the heuristic model and shows us how some of the standard Yale variables (source credibility and attractiveness, number of arguments, etc.) can cue off short-term attitude change. The models also indicate that the more active one's involvement, the more one learns - especially from one's own thoughts (Trenholm, 1989).

3.4.2 The Heuristic-Systematic Model of Persuasion

3.4.2.1 Reconciling Persuasion Theory and Social Cognition

The other dual-processing model of persuasion was proposed by Chaiken and her associates (Chaiken and Eagly, 1983; Chaiken et al., 1989; Eagly and Chaiken, 1993). Similar to the ELM, this model proposes two mediational paths to persuasion: systematic processing and heuristic processing. Also of note, is the fact that the model was originally conceived to apply to "validity seeking" persuasion contexts.

Systematic processing is analogous to Petty and Cacioppo's "Central Processing." In a validity-seeking setting, systematic information processing is viewed as "judging the validity of a message's advocated position by scrutinizing persuasive argumentation and by thinking about this information in relation to other information they may possess about the object or issue discussed in the message (Eagly and Chaiken, 1993, pp. 326-327). Just as in the case of the ELM, mediation is thought to occur through the understanding and cognitive elaboration of persuasive argumentation. Hence, cognitive responding plays a key role in this model as well. Moreover, the model "assumes that capacity and motivation are important determinants of systematic processing, and that this mode of processing may sometimes be biased" (Eagly and Chaiken, 1993, p. 8).

Heuristic processing, on the other hand, is viewed as a "more limited mode of information processing that requires less cognitive effort and fewer cognitive resources than systematic processing" (Eagly and Chaiken, 1993, p. 327). Because of cognitive limitations, message receivers are thought to use *simple decision rules or cognitive heuristics* to arrive at judgments and decisions. Thus, in this respect, it is similar to the ELM. However, the heuristic systematic model has a narrower conceptualization of this mode of processing than that of Petty and Cacioppo. In the latter, a variety of affective and cognitive mechanisms are believed to operate in a low involvement situation, whereas in the former, only simple rules, schemata, or heuristics can mediate the persuasion process.

Other important differences set the Heuristic-Systematic model apart from the ELM. Heuristic processing in this model is thought to have minimal requirements vis-a-vis the presence of heuristic cues and on the cognitive availability of their associated heuristics (Eagly

and Chaiken, 1993). The model also allows for the possibility that both systematic and heuristic processing can co-exist and exert both independent (i.e., additive) and interdependent (i.e., interactive) effects on judgments. This is sharp contrast to the ELM since this model is vague as to whether or not the two mediating processes can occur simultaneously. As will be seen in a later section, Eagly and Chaiken (1993) consider attributional reasoning as one of three possible modes of persuasion which can, under certain conditions, act in unison. They assert that attributional processes invoke more cognitive effort than heuristic persuasion, but require less effort and cognitive capacity than argument scrutiny. The possibility that systematic, heuristic, and attributional processing can exert additive effects, makes the model particularly attractive in explaining the cognitive processes underlying reception of two-sided messages.

Chaiken and her associates assume that systematic and heuristic (and, by extension, attributional processing) processing can occur simultaneously. But they also believe that "systematic processing typically provides people with more judgment-relevant information than heuristic processing and, in some instance, with information that may contradict heuristic-based judgments of message validity..." (Eagly and Chaiken, 1993, p. 328).

This contradiction between the information provided by heuristic processing and systematic processing may cause the latter mode to "attenuate the judgmental impact of heuristic processing (1993, p. 328). This attenuation could, in effect, "wash out" the effects of the heuristic cues on judgment in situations that give rise to considerable amounts of systematic processing. Perhaps for this reason, most situations involving considerable systematic processing fail to reveal the operation of heuristic processes. However, citing

Chaiken et al. (1989), Eagly and Chaiken point out that:

...systematic processing need not invariably quash the judgmental impact of heuristic processing, and when it does not, they assume that the two modes can exert additive effects on judgment. Thus, even in settings that foster systematic processing, the

heuristic-systematic model (unlike the ELM) allows for the possibility that heuristic processing can exert a significant - and independent - influence on persuasion. (1993, p. 329).

Unlike the ELM, the HSM posits that heuristic processing may, at times, bias systematic processing. As Eagly and Chaiken (1993, p. 329) state: "recipients' processing of heuristic cues establish expectancies about message validity which, in turn, influence their perception and evaluation of persuasive arguments." This biasing effect, however, is only thought to occur when the argumentation in a persuasive message is *ambiguous or subject to differential interpretation* (Chaiken et al., 1989; Chaiken and Maheswaran, 1992).

The HSM model also addresses the potential cognitive antecedents of heuristic processing. The authors (Eagly and Chaiken, 1993) posit that two factors are necessary for this type of processing to occur: (1) the heuristics must be cognitively available and (2) they must be accessible. Moreover, the judgmental impact of heuristic cues increases with increasing *reliability* of their associated heuristics (Eagly and Chaiken, 1993, p. 330). Thus, both individual differences and situational factors that influence the perceived reliability of heuristics should increase the impact of these cues on persuasion and judgment.

3.4.2.2 Motivational Determinants of Processing Mode

Two principles have been proposed by Chaiken and her colleagues with respect to motivation to use one or the other (or both) processing modes: the "least effort" and the "sufficiency" principles. The first reflects people's desire to expend the least amount of cognitive work in order to achieve their processing goals (e.g., achieving a valid interpretation of the communication). This implies that, given a choice of heuristic or systematic processing, individuals will choose the former. The second principle, on the other hand, attempts to ensure that a minimum level of accuracy is attained in the interpretation of the message. Thus, "In validity seeking persuasion settings in particular, it holds that recipients will invest whatever amount of effort is required to attain a sufficiently confident assessment of message validity" (Eagly and Chaiken, 1993, p. 330). They also posit that both sufficiency thresholds and actual levels of confidence vary as a function of individual differences and situational factors. The sufficiency principle implies that when the actual confidence equals or surpasses the sufficiency threshold, processing effort will stop, but will continue as long as actual confidence falls below the sufficiency threshold. Processing effort is believed to be a function of the gap that exists between actual and desired levels of confidence. Taken together with the least effort principle, the sufficiency principle implies that when either the heuristic mode yields insufficient judgmental confidence or when heuristic processing cannot take place, say because of the absence of heuristic cues, individuals will carry out greater amounts of systematic processing (Eagly and Chaiken, 1993).

The HSM thus provides a mechanism for understanding the reasons why people are motivated for systematic processing. The model explains this by positing "that any factor that

increases processing effort has done so either by *increasing people's desired levels of confidence* (i.e., sufficiency thresholds), by *undermining actual confidence*, or by *both mechanisms*" (1993, pp. 331-332).

Whereas the ELM provides a number of variables that are thought to motivate systematic processing, the HSM explains how these variables achieve their impact on motivation. They believe that these variables operate by acting on people's sufficiency thresholds. For instance, the more an individual sees a message as personally relevant the more these individuals are believed to seek greater confidence in their assessment of message validity. The same can be said of individuals high in need for cognition. These people, according to Eagly and Chaiken (1993, p. 332) "are assumed to have higher sufficiency thresholds...."

Of particular interest to the present study is the author's belief that other individual difference and situational variables may serve to reduce or undermine actual confidence in a message. This would essentially have the same effect on systematic processing as an increase in the sufficiency threshold. One such factor appears to be particularly important, namely, expectancy disconfirmation. (expectancy disconfirmation could be due to either an individual difference variable and/or a situational factor). Maheswaran and Chaiken (1991) have carried out research which demonstrates that expectancy disconfirmation "enhances the extensiveness of information processing by undermining perceivers' confidence in their initial, heuristic-based judgments" (Eagly and Chaiken, 1993, p. 332). Also, findings from outside the persuasion literature that seem to indicate that mildly depressed persons and persons low in self-esteem process information more extensively.

What happens when motivational factors lead people to have high sufficiency thresholds, but their ability for systematic processing is constrained or they doubt its efficacy? (e.g., 2-sided messages) In such circumstances, Chaiken et al. (1989) propose that perceivers might more carefully scrutinize the setting for judgment-relevant heuristic cues. In addition, they point out that motivational variables that raise people's sufficiency thresholds (e.g., personal relevance) should, according to their model, also enhance the accessibility of goal-relevant heuristics. For these two reasons, Chaiken et al. conjecture that when an individual's actual or perceived ability is low, heuristic cues will often exert a greater effect on judgment when the individual's sufficiency threshold is located at higher points on the confidence continuum. This is essentially the enhancement hypothesis and is important since it signifies that variables such as task importance and personal relevance can not only act as motivators of systematic or central route processing, but can also, according to the HSM, motivate heuristic processing.

Eagly and Chaiken (1993) provide an excellent review of the empirical findings which support the HSM model. Two studies relevant for the topic at hand will, however, be examined.

Chaiken and Maheswaran (1992) tested for the possible interaction between heuristic processing and systematic processing. In this study, they manipulated source credibility, argument ambiguity and strength, and task importance. They found that when the message was unambiguous, the results replicated past research findings. That is, when task importance was low, only source credibility influenced subjects' attitudes, message strength did not. When task importance was high, only message strength influenced attitudes, source credibility did

not. Very different results occurred, however, when the message was *ambiguous*. In this situation, the heuristic cue - source credibility - had an impact in both the low and high importance situation. In the low importance situation, the results simply confirmed the other findings under low importance: namely, that heuristic processing plays the major role in attitude change. In the high importance situation, on the other hand, very different results appeared. Here, *both source credibility and message processing appeared to be operating*. The heuristic cue - source credibility - apparently led them to form expectancies about the validity of the message content. Thus, in the low credibility situation, the cue led subjects to form expectancies of low message validity while in the high credibility situation, the cue led to expectancies of high message validity. This, in turn, biased systematic processing in a negative and positive manner, respectively. As Eagly and Chaiken (1993, p.337) further point out, in the high importance, ambiguous message condition

...the effects of source credibility on attitudes was partially mediated by its effect on the valence of subjects' attribute-related thinking. Consistent with the model's assumption that heuristic and systematic processing can exert additive effects on judgment, the direct path between source credibility and attitudes...was also significant in this condition.

Maheswaran and Chaiken (1991) tested the notion that subjects in a low importance situation who experience a reduction in their confidence in their heuristic-based judgments will be motivated to increase their systematic processing. To achieve this, they manipulated task importance and the congruency of consensus information and message content. In support of this hypothesis, the authors found that low importance subjects who received incongruent information exhibited just as much systematic processing as their high importance

counterparts. The explanation proposed by the authors to account for these findings was that the incongruity between the heuristic cues and the minimal systematic processing reduced their confidence in the former. This, then, motivated them to greater systematic processing.

The attitude data from the above study also confirmed other assumptions of the HSM. It confirmed, for instance, that although persuasion was mediated by systematic processing in the study's high importance conditions - regardless of congruency - the heuristic cue, namely, *perceived consensus* was also an important predictor of attitudes for subjects in the high importance condition when consensus information and message content were congruent. This shows that heuristic and systematic processing can exert additive effects on judgment.

Eagly and Chaiken (1993, p. 339) also point out that "The fact that perceived consensus was not a reliable predictor of attitudes in the high importance/incongruent conditions supports the model's attenuation hypothesis." It also supports "Chaiken et al.'s (1989) claim that attenuation effects occur primarily when message content blatantly contradicts the validity of heuristic cues.

What is important to note is that in the HSM, heuristic processing can have an additive effect on judgment when the information provided by systematic processing "does not contradict the validity of simple persuasion heuristics" (1993, p. 339).

3.4.2.3 The HSM and the ELM - Summary and Conclusions

The HSM goes beyond the ELM and makes some important contributions to theorizing on persuasion. The main contribution is centered on the simple decision rules which it proposes as moderators of attitude change and its assumption that such heuristics are

learned knowledge structures (Eagly and Chaiken, 1993). These concepts permit the bridging of persuasion theory to recent developments in social cognition. That is, the HSM has applied some important themes which have gained currency in social cognition: namely, the importance of information stored in memory and its impact on processing and judgment; the extent to which heuristic processes occur in a relatively automatic and spontaneous manner - with little effort, intention, or awareness on the part of social perceivers; and the degree to which these "theory-driven" effects can be overridden by motivational factors that lead message receivers to carry out more of a systematic or data-driven form of processing (Eagly and Chaiken, 1993). As the authors of the model state:

Although the model's conception of heuristic processing is narrower than the elaboration likelihood model's definition of peripheral route persuasion, its clearer linkage to the social cognition literature yields a more theoretically developed view of persuasion that is not based on recipients' processing of persuasive arguments. For example, the assumption that persuasion heuristics are learned knowledge structures gives rise to the model's general proposition that the judgmental impact of heuristic cues should be moderated by the availability, accessibility, and perceived reliability of their associated heuristics. (Eagly and Chaiken, 1993, p. 342)

Although the ELM and the HSM appear to be competitors, Eagly and Chaiken (1993, p. 345) seem to view them more as complementary to each other. As they state:

The elaboration likelihood model represents a highly integrative empirical framework for investigating persuasion....Petty and Cacioppo and others who have used their framework have shown that an impressively large number of situational and individual difference variables can be understood from the perspective of the elaboration likelihood model. The main limitation of the model is theoretical. For example, while the model predicts that peripheral cues will have little impact when the elaboration likelihood is high, it provides little insight as to why this should be the case....In contrast, the unique strengths of the heuristic-systematic model are theoretical....the model also goes beyond the elaboration likelihood model by suggesting ways in which heuristic and systematic processing can exert independent and interactive effects on attitude judgment, by illuminating the underlying psychological mechanisms by which motivational treatments promote systematic or central route processing, and by

suggesting ways in which heuristic and systematic processing can serve motivational concerns other than the motive to achieve valid, correct attitudes.

Although the two models have often been treated as competitors...a more productive viewpoint is to regard the two models as complementary. The empirical strengths of the elaboration likelihood model together with the theoretical strengths of the heuristic-systematic model make for a truly impressive dual-processing framework for understanding a variety of social influence phenomena.

This section has reviewed the two principal dual process models of persuasion, the ELM and the HSM. These models essentially evolved from the cognitive response model and, in fact, incorporate this attitude change mechanism as part of central or systematic processing. They also allow for the operation of other processes for the case where message recipients do not have the motivation or ability to engage in argument processing. The ELM refers to this class of mechanisms as peripheral processing; while the HSM limits itself to heuristic processes. What is particularly important for the present study, is (1) the fact that attributional thinking is seen as involving a level of cognitive activity intermediate between heuristic processing and systematic processing and (2) that when argument-based processing does not contradict the validity of an attributionally (or heuristic) based inference about message validity, the HSM predicts an additive and/or interactive effect between the two (or three) modes of processing (Eagly and Chaiken, 1993). More will be said about attributional processes in the following chapter.

3.5 Individual Difference Variables and Cognitive Responding

3.5.1 Mediating Role of Personality

When considering the research and controversies surrounding cross-cultural differences in information processing, Tamilia (1977, p.84) points out that "it is generally accepted today that there are no differences in the cognitive processes *per se* between cultural groups, and that the processes are, in fact, pancultural (Cole, Gay, and Glick, 1968)". He cites the following conjecture on the part of Triandis, Malpass, and Davidson (1973, p.371):

The most plausible hypothesis is that basic psychological processes, such as selectivity in perception, are invariant across cultures, but the specific manifestations of the processes, such as what type of stimuli are selected, differ across cultures.

Tamilia (1977) also points out the work of Wright (1973a) who states that differences among consumers in information processing are not due to differences in the decision-making processes; instead, they are a reflection of the way in which the decision-making process is *executed*. This, in turn, arises from situational factors or certain personality traits which impede the decision-making tasks. It is these situational factors or personality traits which are culturally determined rather than the process itself (Tamilia, 1977). One important personality variable proposed by Wright as having a potential moderating effect on information processing was self-esteem⁶. Tamilia (1977) has reviewed the role of this variable, as well as achievement motivation and fatalism, for information processing and, especially, with regards to differences between French and English Canadians. These variables have served as the

⁶ Other researchers, notably, Larson (1978) and Heesacker, Petty and Cacioppo (1983) have also proposed the cognitive style variable of Field-Dependence/Independence (FDI) as an important moderator of persuasion.

basis for his "Source Moderator Model." The self-esteem construct will be reviewed in the next section, while the other two variables will be briefly examined in Chapter 5.

3.5.2 Influence of Self-Esteem

A number of factors warrant that we examine the self-esteem construct in greater detail. First of all, a fairly extensive literature exists dealing with the relationship of a receiver's degree of self-esteem and persuasive effects - part of which was reviewed in an earlier section. Secondly, is the fact that this construct is intimately related to a person's view of the "self" and to another important variable, namely, "self-acceptance." As was seen earlier, this latter construct appears to play a key role in a person's affective reaction to two-sided messages. Thirdly, some researchers have found differences in modal levels of self esteem across cultures (see, for e.g., Hendersen, Long, and Gantcheff, 1970; Long et al., 1972; Lambert, 1970; cited in Tamilia, 1977). And, finally, there is the considerable *marketing* literature already accumulated on the influence of self-esteem on information processing (see, for e.g., Schaninger and Sciglimpaglia, 1981; Schaninger and Buss, 1982; Bither and Wright, 1973; Wright, 1971). For instance, Schaninger and Scilimpaglia hypothesized and confirmed that during an information - display-board task, individuals high on self-esteem examined a greater number of cues and alternatives than their low self-esteem counterparts. Wright (1971) has found that consumers with high self-confidence were more active in generating counterarguments to persuasive messages than those having less confidence. Bither and Wright (1973) also indirectly provided confirmation of this in their test of the "distraction hypothesis."

Perloff and Brock (1980) have proposed that the impact of individual difference variables on persuasion is also mediated by the *value people attach* to their own cognitive responses to persuasive appeals. An individual's "uniqueness motivation" is believed to play an important role in this mediation (Perloff and Brock, 1980). Individuals with high uniqueness needs, as is the case of persons having high self-esteems, should "attach greater value and respect to these thoughts and may even be more confident about their cogency and intellectual value than subjects low in uniqueness needs. As a result, cognitive responses should predict attitudes better for these subjects than for subjects low in uniqueness needs" (Perloff and Brock, 1980, p.88). In conclusion, the studies reviewed above indicate that high self-esteem individuals generate more counterarguments and assign more weight to them when altering their attitudinal structures than their low-self-esteem counterparts. The study by Chebat and Picard (1988) reviewed in chapter two found that message sidedness interacted significantly with self-acceptance: High self-accepting individuals revealed a more favorable attitude toward two-sided messages than individuals low in self-acceptance. Given the importance placed so far on the self-esteem construct, the question which now arises is the specific relationship between this variable and self-acceptance. As Robinson and Shaver (1973, p. 45) point out, the two constructs are empirically and conceptually related:

In general, self-acceptance might be considered a necessary but not sufficient basis for high self-esteem. Researchers may often attempt to distinguish conceptually between self-esteem and self-acceptance. However, empirically the two are usually highly related...

What this implies, is that high self-esteem individuals will also tend to show high levels of self-acceptance; while low self-esteem subjects may or may not show high self-acceptance. More will be said about these constructs in Chapter 5.

In the next chapter we review attribution theory. Although this theory does not form part of the "mainstream" persuasion approaches, it is important for our research since:

- 1- The formation of attributions represents one form of cognitive responding;
- 2- It has been the object of a great deal of research in marketing;
- 3- It has important cross-cultural implications.
- 4- It is another paradigm used to explain the effects of message sidedness.

3.6 Chapter Summary

Chapter 3 reviewed the extant theories of persuasion, with a view to highlight the evidence for their validity and their comparative superiority. Emphasis was placed on the cognitive response theory and related dual-process models.

Research reveals that the formation of cognitive responses plays a key role in the processing of persuasive communication. Moreover, as Shavitt and Brock have demonstrated, it is primarily the self-relevant cognitions which appear to be responsible for the mediational properties of these thoughts. It was also shown that individuals could differ in the extent to which they rely on these cognitions to alter their cognitive structures.

Cognitive responding tends to occur primarily in high involvement situations - during systematic or central processing. A number of other processes are posited by the ELM and HSM to account for persuasion in low involvement conditions. Heuristic, attributional, and systematic processes were also compared and contrasted with a view to demonstrate that, under the right conditions, these mechanisms can exert additive and/or interactive effects on attitudes.

The chapter concluded by examining two related individual difference constructs, namely, self-esteem and self-acceptance, and their role in the persuasion process.

CHAPTER 4

ATTRIBUTION THEORY APPLICATIONS IN PERSUASION

4.1 Introduction

As Seibold and Spitzberg (1982) point out, human communication involves three fundamental processes: coordination, transaction, and accomodation. Underlying these three processes are interpretive activities. Attribution theory deals with these activities and is an important tool to help us understand human communication and persuasion.

Attribution theory looks at how people seek knowledge in order to predict and control events in their lives. It is centered on the rules the average person uses in attempting to infer the causes of behavior which s/he has observed (Jones et al., 1972). An attribution, then, is an inference which is made in order to explain *why* an event has occurred (a causal attribution), which attempts to determine the dispositions of an individual (variously known as dispositional, characteristic, or trait attributions), or which assigns responsibility for a particular outcome (a responsibility attribution) (Lord and Smith, 1983). Individuals can ask themselves this question regarding their own behavior or that of others or of any other occurrence. The explanation given following this questioning becomes the perceived cause of an event or behavior which represents the attribution.

Using an information processing approach, Hamilton (1988) describes attributional processes as one specific type of inferential process that is used by observers to extend the

perceiver's conception of the person, group, or behavior characterized in the perceived information. Thus, he argues that it is *one* of the elaborative processes used by observers in information processing, others being attentional and encoding processes, cognitive representation and retrieval. When an observer carries out attributional analysis, he or she uses the information available to infer what were the causal antecedents that led to the occurrence of a particular behavioral event. He further states: "When such attributional analysis occurs at all, and if so, to what extent, presumably will vary depending on a number of factors. When it does occur, however, it represents another way in which the perceiver extends and elaborates on the stimulus information that initially was available." (1988, p.362)

But he emphasizes that not all elaborative or inferential processes are attributional in nature:

Thus, we see attribution as an inference process that may or may not occur during information-processing, and when it does occur, it may vary in the cognitive task demands that it places on the perceiver. Both of these variations would have implications for how the available information is represented in memory, and hence for the perceiver's "social knowledge" or understanding of the persons, event, and circumstances portrayed in that information. (Hamilton, 1988, p.368)

Attributions are thus seen as one type of cognitive response since they represent the interaction between incoming and stored information (see also Edell and Mitchell, 1978).

A number of researchers have advanced the notion that attributions occur in persuasive communication situations (e.g., Eagly et al. 1981; Gottlieb and Ickes, 1978; Seibold and Spitzberg, 1982; see also the review by Eagly and Chaiken, 1984). Moreover, the theory has seen wide use among advertising researchers (see, for example, Smith & Hunt,

1978; Sparkman & Locander, 1980; Settle & Golden, 1974; Golden & Alpert, 1978; Kamins & Assael, 1987). The behavioral event which instigates attributional thinking is the ad itself (Sparkman and Locander, 1980). But even the message on its own, can instigate causal thinking: "the message can be regarded as an observable effect which can be attributed to an underlying cause such as (1) the desire of the advertiser to sell his particular brand, or (2) the actual characteristics of the brand being advertised" (Settle & Golden, 1974, p. 181).

However, as Eagly and Chaiken (1984) point out, a serious limitation of the application of attribution theory to persuasion results from the fact that the theory only deals with persuasion cues that have causal relevance. In a persuasion setting, there are many cues and only some have causal relevance.

4.2 Levels of Information Processing and Typology of Attributional Principles

The processes leading to the formation of attributions differ according to the level of information processing that takes place. Kelley (1973a), Jones and Davis (1965), and Weiner (1972) postulate that attributions occur as a result of individuals seeking explanations for behavior. They emphasize a rational or effortful process in which the individual weighs or considers multiple pieces of information in a conscious attempt to explain situations or understand individuals. However, recent research points out that sometimes one responds to cues in a "mindless manner" (Nisbett and Wilson, 1977) or one responds via an established pattern or script (Abelson, 1981; Langer and Abelson, 1972). In these cases, the attributional process requires little effort. Lowe and Kassin (1986) have also advanced the notion that attributions in everyday situations may be guided as much by perceptual factors as by the

cognitive factors emphasized in experimental studies.

Lord and Smith (1983) have proposed a typology of attributional principles based on the two dimensions - type of attribution and level of information processing. This typology is presented in Table 4.1.

Table 4.1

Principles Used by Attribution Theories

(Adapted from Lord and Smith, 1983)

Level of Information Processing	Type of Attribution		
	Causality	Responsibility	Personal Characteristics
High	(1) Covariation Configuration (Augmentation/ Discounting)	(2) Intent Control Justification	(3) Correspondent
Low	(4) Salience Temporal Proximity Spatial Proximity	(5) Formal role	(6) Prototype fit Critical feature fit Context

As will be noted in the table, Lord and Smith classify correspondent inferences as attributions involving a high level of information processing. However, as will be seen in a subsequent section, other authors (e.g., Gilbert, Pelham, and Krull, 1988; Smith and Miller, 1983; and Trope, 1986; Trope and Liberman, 1993) believe that the formation of correspondent inferences also involves a fairly effortless, spontaneous stage. As Lord and Smith point out, in general people appear to rely on well-learned and general 'schemas' or

'scripts' to resolve attributional questions. That is, attributional questions tend to be resolved by the passive unconscious processes shown in the bottom row of the typology given in Table 6 (Lord and Smith, 1983). However, the factors described below will tend to shift the information processing toward the effortful end of the continuum. We will briefly review the factors most pertinent to causal thinking in moderate to high involvement persuasion. A more detailed review can be found in Lord and Smith (1983).

I - SITUATIONAL FACTORS

1 - The degree to which the event or outcomes being evaluated tends to disconfirm prior expectations. The disconfirmation of expectations tends to increase the degree of information processing. Comparative and two-sided advertising, by comparing two brands or by presenting both positive and negative attributes of a brand, are relatively unusual advertising strategies which tend to disconfirm receivers' expectations. Receivers expect spokespersons to talk only about their own brands and avoid saying negative things about the products they are trying to sell.

2 - Norms or cues inherent in a situation. If the attributional context involves a performance evaluation, subjects would tend to produce more systematic, consciously directed attributions. Advertising appeals would probably represent such a context since receivers are called upon to evaluate either the spokesperson or the product attributes or both.

3 - The informational context to which an attributor is exposed. When attributionally relevant information is easily available and is in a form consistent with conscious, reflective processes (e.g., written, or graphic information), more cognitive modes of attribution should be elicited (Lowe and Kassin, 1980).

II - MOTIVATIONAL FACTORS

1 - The involvement of the observer. The fact that the processing of the arguments or issues in a message is something which tends to occur in moderate to high involvement situations means that effortful processing will be favored.

Also closely related to involvement is what Jones and Davis (1965) call "hedonic relevance" - the positive or negative effects of an actor's choice for the perceiver. The higher the "hedonic relevance" the greater the propensity for the perceivers to make dispositional attributions. As Lord and Smith (1983) state "An individual who

depends on another for rewards probably engages in conscious efforts to understand that other individual" (p. 54). Product advertisements would tend to represent situations of high "hedonic relevance" because of the positive or negative implications for the consumer of the advertiser's appeal. The source's position vis-a-vis one brand or model rather than another will impact on the consumer's ultimate choice and satisfaction.

In sum, higher levels of involvement or hedonic relevance to the perceivers will lead to more effortful information processing.

2 - *Cognitive consistency*. People find cognitive dissonance stressful (Festinger, 1957) and, as a result, subjects experiencing this condition will use a number of strategies to achieve consonance. Some of these can occur unconsciously; however, in "situations of extreme stress and when both cognitions are important, the individual may have to engage in an active search or review of information to reduce the dissonance" (Lord and Smith, 1983, p.54). Two-sided appeals, by their somewhat ambiguous nature (see, for e.g., Sorrentino et al., 1988), should cause greater dissonance than one-sided appeals.

III - INDIVIDUAL DIFFERENCES

Self-esteem. One of the individual difference variables cited by Lord and Smith (1983) which influence the degree of effortfulness or consciousness of information processing, is self-esteem. This comes as no surprise in view of the fact that attributions represent a form of cognitive response. Low self-esteem individuals are less attentive to relevant information, spend less time in making decisions, prefer secondary sources of information rather than first hand experiences and have less tendency to engage in abstract reasoning. As a result, we would expect such individuals to make greater use of available schematic information rather than taking a "bottom-up" or effortful approach in forming attributions.

From a consideration of the above factors, it is apparent that persuasive appeals of the two-sided variety would tend to generate effortful attributional processes of the kind given in boxes (1) and (3) of Table 6. We now turn to a review of these processes.

4.3 Attributional Paradigms Applied to the Study of Persuasion

Two major attributional approaches are most relevant to the present topic: (1) Kelley's theories - both the covariation and configuration principles; and (2) Jones and Davis's Correspondent Inference Theory. This section will briefly review the main features of each of these theories and their applications to the study of the effects of message sidedness.

4.3.1 Kelley's Theories

Kelley's attribution theory (1967; 1971; 1972; 1973) distinguishes between the attributional process for two types of information: information from multiple observations over time and information from a single observation. In a multiple observation-over-time situation, the "covariation principle" of causal attribution is evoked. In the single inference situation, "configuration principles," or single inference rules, are used. Kelley's theories are basically concerned with the question of what information is used to arrive at a causal attribution. The covariation theory will be reviewed first.

4.3.2 Covariation Theory

In Kelley's covariation principle, the observed effects are attributed to that which is present when the effect occurs, and is absent when the effects are absent. More specifically, variations in effects are judged in relation to how they covary with other persons' behaviors at different times and in different settings. Kelley's central notion is that attributions made to the environment, instead of the self, demand that the actor be perceived as responding differentially to the entity in question compared with other entities (distinctiveness), that the

response be consistent over time and over modalities (consistency), and that such responses be similar to others' responses to the entity (consensus). To the degree that these four criteria for external attribution are met (distinctiveness; consistency over time; consistency over modality; consensus), a person will feel more certain that his view of the world is veridical.

With respect to persuasive communications, then, an entity attribution would be favored (and therefore the message would be considered valid) if a communicator took a position that (1) was in agreement with that of other relevant information sources (consensus), (2) was stated on various occasions to various audiences (consistency), and (3) was tailored to the particular issue under consideration (distinctiveness).

As Eagly and Chaiken (1984, p.290) point out, "the relevance of Kelley's (1967) ANOVA analysis to understanding persuasion is clearest when message recipients have multiple observations of communicators and messages that would enable them to fulfill consensus, consistency, and distinctiveness criteria with respect to communicators' positions on issues." In fact, they believe that the ANOVA model has tremendous potential to account for perceivers' evaluations of persuasive messages in natural settings because very often, people have extensive experience with various communicators who state their positions on related issues on multiple occasions. The ANOVA model is also applicable in situations of single observations. Although at first sight one may think that the recipient cannot build a Persons X Occasions X Entities matrix, Eagly and Chaiken (1984, p.290) indicate that "various cues in such persuasion situations may allow perceivers to make reasonable assumptions about how such a data matrix would be completed if more detailed information were available." Such cues can be found, for instance, either in the message itself, or in the

source of the message (Eagly and Chaiken, 1984). They emphasize, however, that few independent variables have been systematically studied from this perspective, an exception being the work of Goethals and his associates (Goethals, 1976 and Goethals and Nelson, 1973) on communicator similarity.

Settle and Golden (1974) were among the first to apply Kelley's model to a promotional situation (see also, Settle, 1972). They hypothesized that readers of advertisements would evoke covariation analysis to interpret the validity of message claims. Specifically, consumers were expected to attribute the promotional claims to either the actual characteristics of the product or to the advertiser's desire to sell the product. If message claims were attributed to the actual characteristics of the product, consumers would be more confident in the claims and form more favorable attitudes toward the brand (as measured by an expectancy model). If the message claims were attributed to the advertiser's desire to sell the product, consumers would be less confident in the claims and form less favorable attitudes toward the brand.

Results of their experiment confirmed that "product claims that vary over product characteristics will result in higher confidence ratings" (Settle and Golden 1974, p.184) and "the increase in confidence obtained by disclaiming two of the five product features [in their ad] did exactly compensate for the loss of expectancy value resulting from the two features disclaimed" (p.185).

Their study, however, was the object of considerable controversy (see, for example, Burnkrant, 1974; Hansen and Scott, 1976). One criticism was centered on the possibility that the experimental procedure may not have evoked causal inference processes. Another

important criticism dealt with the possibility that Settle and Golden did not have the appropriate conditions to warrant the use of the covariation principle discussed above. Since the researchers allowed only one observation of the experimental stimulus, Hansen and Scott (1976) believe that the covariation principle (which requires observations over multiple exposures) is not the appropriate attributional mechanisms. Instead, they believe that Kelley's (1973a) configuration theory and its principles of discounting and augmentation are the operative causal inference processes. This is echoed by Mizerski et al. (1979, p.128) who state:

The covariance principle is most applicable for understanding how consumers learn to make attributions, particularly in extended information-processing/attribution situations. However, it is generally too unmanageable for actual application in understanding a specific consumer response. Consumers rapidly learn to associate causes with event, and to generalize across similar attribution situations. These generalized causal expectancies and the attributional rules governing the inference procedure are captured in the derivatives of the covariance model referred to as causal schemata or "configuration" [augmentation/ discounting principles] concepts.

4.3.3 Configuration Theory and the Discounting and Augmentation Principles

4.3.3.1 A Simplified Analysis of Causation

Kelley (1972) also suggested that recipients of persuasive messages may engage in simpler analysis of causation based not on the ANOVA cube, but on the plausibility of possible causes of the communicator's position. According to this analysis, perceivers scan available information for possible causes of the communicator's stand, and take into account whether there are one or more causes that seem plausible and whether these causes would be facilitative or inhibitory in relation to the position that the communicator states in the message.

When there are several factors present which would cause the effect, the discounting principle may help explain the causal attribution made. In this case, "the role of a given cause in producing an effect is discounted if other plausible causes are also present" (Kelley, 1971, p.8). On the other hand, in a situation where inhibitory factors are present, the augmentation principle may be operating: "if for a given effect both a plausible inhibitory cause and a plausible facilitative cause are present, the role of the facilitative cause in producing the effect will be judged greater than if it alone were present as a plausible cause for the effect" (1971, p.12).

As a result of the operation of these principles, Hansen and Scott (1976) believe that when only positive claims are made, the internal or true beliefs should be discounted because other plausible causes are also present. The role of these beliefs in negative claims, however, should be enhanced because they are made in spite of situational factors which should inhibit disclaimers. As they go on to state:

The augmentation principle is akin to the concept of information value developed by Jones and Davis (1965) in that an act performed by an individual that is consistent with what normally would be expected from other people in similar positions (in-role behavior, socially desirable behavior) tells less about the unique characteristics of that person than an act which goes against social expectations (out-of-role behavior). (Hansen and Scott, 1976, p.195)

They conclude:

Disclaimers in an advertisement should in fact increase the perceived trustworthiness of the source, according to the augmentation principle and the notion of information value. (p.195)

The augmentation and discounting principles also form part of a more elaborate theory of persuasion proposed by Eagly, Wood and Chaiken (1978). The essence of their theory is

that recipients "construct a minitheory of the communicator's behavior" based on information or cues that recipients obtain prior to receiving the message. Some of these cues are often embedded in the message itself (e.g., information about the communicator's personality) or presented simultaneously with the message (e.g., the audience's reactions to the communicator). A causal analysis is made and generates expectancies about the position the communicator should take on the issue presented in the message. This expectancy is then confirmed or disconfirmed by the position the communicator actually takes in the message.

When recipients' expectancies are confirmed, they tend to attribute the communicator's view to the personal characteristic or situational pressure that generated their expectancy. Such a causal inference accounts for the message in terms of a personal or situational factor instead of the external reality the message purports to describe. This attribution to the personal or characteristic of the source or situational pressure will weaken the perception that external reality is at the root of the message. This is in keeping with the discounting principle. Message recipients thus infer that the message source is biased.

On the other hand, when the communicator disconfirms an expectancy by not taking the predicted position, recipients must generate a new theory of why the communicator took the position he or she did. Usually, the most likely alternative theory is that especially compelling evidence made the communicator overcome the bias that was expected to affect his or her behavior. This strengthening of the entity attribution is consistent with Kelley's augmentation principle. Under these circumstances, a communicator is regarded as especially unbiased, and the message is relatively persuasive.

4.3.3.2 The Priester and Petty Study

A recent study by Priester and Petty (1993) sheds more light on the effect of disconfirmed expectancies on perceived source honesty, on increased information processing activity, and its impact on persuasibility.

The authors' principal hypothesis - based on both the ELM and the HSM - was that the perceived honesty of the communicator will moderate the extent to which individuals engage in the scrutiny of the arguments in a persuasive message. Specifically, they sought to show that individuals low in need for cognition (NFC), i.e., cognitive misers, will carry out little if any message scrutiny when a communicator is assumed to deliver an accurate message.

In their preliminary study they set out to determine which of 17 source characteristics were the most highly associated with providing an accurate message. The characteristic which ranked the highest was "honesty." This variable was then manipulated either directly or indirectly in their experiments. The direct manipulation involved simply providing information about past honesty of the communicator; whereas the indirect manipulation was carried out through an expectancy confirmation/ disconfirmation method from the Attributional Analysis of Persuasion approach originally proposed by Eagly, Chaiken, and Wood (1981) and reviewed above.

As we have seen previously, the ELM assumes that individuals are motivated to hold correct attitudes and situational and individual factors govern the extent to which message receivers carry out effortful message scrutiny (Petty and Cacioppo, 1986). In a similar way, the HSM predicts that people will expend as much cognitive effort as necessary in order to attain their desired confidence that their processing goals are accomplished (Eagly and

Chaiken, 1993). Thus, these theories predict that when individuals' needs for accuracy is very high and when simple cues cannot provide the necessary accuracy, these people will engage in effortful message processing. This led them to their principle hypothesis: "...that perceptions of communicator accuracy would moderate the extent to which attitude change is based on message processing" (1993, p.3).

Their second hypothesis was that need for cognition would also interact with the effect of source honesty. Thus, for individuals who do not characteristically enjoy thinking such as people who are low on need for cognition, they expected that they would use simple message cues to avoid having to carry out effortful message scrutiny. On the other hand, individuals high in need for cognition enjoy cognitive activity and should not be influenced as much by perceptions of source accuracy.

The results of their first two experiments confirmed the above predictions. In both experiments, it was found that only for the case of low NFC individuals did high source honesty result in reduction in message scrutiny in comparison to subjects who perceived a low level of source honesty. In this latter case, considerable message scrutiny appeared. For the case of high need for cognition subjects, however, there was no significant difference between the high and low levels of honesty perception. Also worth mentioning, was the fact that subjects who were high in NFC and who perceived the source as trustworthy did experience greater attitude change than for the subjects who perceived the sources as untrustworthy. Only *directional support* for this was found, however, since the results did not reach statistical significance. Again, this may add support to the study by Chaiken and Maheswaran (1992) which showed an interaction between source credibility (a heuristic cue) and message

content on attitudes (It may be recalled that the study also demonstrated an additive effect of source credibility on attitudes.)

In their third experiment, they used the Attributional Analysis of Persuasion (AAP; Eagly and Chaiken, 1975; Eagly, Wood, and Chaiken, 1978; Wood and Eagly, 1981; Eagly, Chaiken, and Wood, 1981) to indirectly manipulate a source's level of trustworthiness. Essentially, this method was described above and will not be described again. In this experiment they hypothesized, first of all, that when a communicator disconfirmed expectancies about the message position he/she would take, it would produce a higher level of honesty in the source than if expectancies had been confirmed. Their second hypothesis proposed that low NFC individuals would tend to engage in less message processing when the source was perceived as relatively honest than when the source was perceived as relatively dishonest.

A third hypothesis was that in the case of expectancy confirmation on the part of the source it was possible to equal or exceed the persuasive effect of a disconfirming source. This could occur when the arguments in the message are very compelling. Since expectancy confirmation is posited to increase information processing, compelling messages would receive more careful scrutiny and could lead to higher persuasion than if subjects had not engaged in message scrutiny. This would go against the Attributional Analysis of Persuasion which had posited that expectancy disconfirmation would inevitably lead to greater persuasiveness. The AAP did not explicitly consider the strength of the arguments presented by the source. According to Priester and Petty, disconfirmed expectancies should lead to greater persuasibility of the message only in the case where the message contained weak or

moderately compelling arguments or when the ability to engage in message scrutiny was reduced. As the authors state:

Disconfirmation of expectancies and attributed message accuracy would be less likely to have persuasion advantages over confirmation of expectancies if the message arguments are strong. If these results are obtained, they would provide an important caveat to the general AAP prediction of greater persuasion of expectancy disconfirming sources. A second caveat to the AAP is that the effects of expectancy confirmation/disconfirmation on message processing should be most evident for subjects low in need for cognition. (Priester and Petty, 1993, p. 22)

Results of their third experiment confirmed the above hypotheses. First of all, in support of the earlier findings reviewed in this paper on two- versus one-sided appeals, subjects exposed to an expectancy disconfirming source rated the latter as more honest than receivers exposed to an expectancy confirming sources.

A significant three-way interaction on the attitude measure was in line with the authors' conjecture on source honesty. Low NFC subjects based their attitudes on message scrutiny only when their expectancies were confirmed. When their expectancies were disconfirmed, very little message scrutiny took place and their attitudes were based on the message accuracy inferred from the source. In the case of high NFC individuals, on the other hand, there was no interaction with respect to expectancies: subjects exposed to either expectancy confirmation or disconfirmation scrutinized the message to the same extent. In all three experiments, the role of message scrutiny as determinant of the attitudes of low NFC subjects decreased as the source was perceived to be more honest. Thus, this study adds considerable support to the notion that the extent of message scrutiny is determined to a large extent by a receiver's perception of source accuracy. It also shows the important role of

individual differences with respect to this effect. It was only the low NFC subjects whose message processing was affected by perceptions of source accuracy. Attitudes of subjects who enjoyed cognitive activity, that is, high NFC subjects, were shaped by message scrutiny to the same degree regardless of their perception of source trustworthiness.

They point out that their findings should lead to two modifications to the Attributional Analysis of Persuasion discussed earlier:

1- Although expectancy disconfirmation involves less information processing than in the case of expectancy confirmation, this tendency appears to manifest itself to a greater degree in low need for cognition individuals.

2- The second caution is that expectancy disconfirmation does not in all cases lead to greater persuasion. Their findings seem to suggest that persuasion due to inferred source honesty or message accuracy applies most likely to individuals who do not enjoy thinking and who are exposed to only weak or moderately strong messages. When message arguments are forceful, the increased information processing activity brought on by a confirming source can result in as much or more persuasion than that resulting from a disconfirming source. The authors conclude:

Despite these questions, the current studies clearly indicate that low NC individuals choose to expend the energy necessary to process in conditions where they cannot be certain as to the truthfulness of the information presented by a knowledgeable communicator. When the source is perceived to be highly accurate, attitudes are formed in the absence of much message-relevant thinking. (Priester and Petty, 1993, p.32)

The study also addresses an important issue dealing with the degree of information processing implied by expectancy disconfirmation and arising from the Attributional analysis of Persuasion. Although the authors found support for the AAP prediction that expectancy disconfirmation leads to decreased message processing, they still believe that the AAP's prediction is "somewhat puzzling" (1993, p. 32)⁷. As they state:

This prediction, validated in our third experiment, is somewhat surprising in light of evidence from several sources that expectancy disconfirmation is more typically associated with greater information processing activity than is confirmation.

The authors cite research by Enzle and Schopflocher (1978), Pyszczynski and Greenberg (1981) and Wong and Weiner (1981) as showing that targets that disconfirm expectations will engage in more attributional inferences than those that confirm expectations - in line with the present author's earlier review of factors that will cause increased attributional thinking. They reconcile these findings with their own and the postulates of the AAP as follows:

This finding is not necessarily inconsistent with the AAP or the current research in that subjects who were confronted with the disconfirmed source may have engaged in more thinking to understand why this source disconfirmed their expectancies than did subjects who were faced with an expectancy confirming source. However, once subjects effortfully judged (via attributional processing) that the source disconfirmed expectancies because he was an honest individual who was telling the truth regardless

⁷The authors point out that the evidence regarding the prediction that disconfirmation of expectancies produces less processing of the persuasive communication than confirmation of expectancies has been inconclusive. They note, for instance, that in the Eagly and Chaiken (1975) study, expectancy disconfirmation led to more argument recall than did expectancy confirmation; in the second AAP study Eagly, Wood, and Chaiken (1978) showed no differences in argument recall due to confirmed versus disconfirmed expectancies; while the third study (Wood and Eagly, 1981), did reveal that expectancy disconfirmation led to less argument recall. In the authors' words: "In sum, although the AAP has correctly predicted the outcome of greater persuasion with disconfirmed expectancies, the data have been conflicting as to the differences in message processing induced by confirmation versus disconfirmation of an expected message position" (1993, p.20).

of his previous and current self-interests, this inference allowed the more miserly of our subjects (i.e., those low in need for cognition) to forego processing of the subsequent persuasive message. (Priester and Petty, 1993, p. 33).

This is basically along the same lines as Eagly and colleagues (1981) who had proposed that increased message processing for those individuals who perceived an expectancy confirmation may reflect receiver's response to attributional ambiguity (Eagly and Chaiken, 1993). When messages disconfirm expectations according to them, receivers "can usually be quite confident that the communicator is unbiased and that the message corresponds to external reality...[and as a result] recipients of disconfirming messages may feel that they can dispense with a careful analysis of message content" (1993, p. 359). However, they believe that when messages confirm expectations it introduces ambiguity. Although receivers may believe that the most plausible cause of the communicator's persuasive message was the person-based or situation-based factor that was originally at the root of their expectancy, receiver's cannot completely eliminate the possibility that it was the external reality that was the basis of the communicator's message. This ambiguity may then give rise to greater scrutiny of the message expounded by the communicator in order to solve the question of message validity. As Eagly and Chaiken (1993, p. 360) state:

This explanation is consistent with the heuristic-systematic model's sufficiency principle, which implies that systematic processing will be more likely when recipients cannot attain reasonable judgmental confidence on the basis of less effortful modes of processing.

Priester and Petty (1993) are of the belief that it is not the expectancy disconfirmation that reduces processing of message argument, but rather the subjects' inference of source trustworthiness and message accuracy which causes this effect. This is, essentially, also in keeping with the view of the AAP. They go on to state that:

If this attributional result was prevented or did not occur, other processing outcomes are possible. For example, if expectancy disconfirmation did not lead to differences in source honesty or accuracy, but merely induced surprise-- such as when a presumably unknowledgeable source presents compelling arguments (e.g., Maheswaran & Chaiken, 1991), or when people learn that a majority of their peers endorse a presumably unpopular position (Baker and Petty, 1994), expectancy disconfirmation could be associated with greater information processing activity as a result of this surprise or curiosity. Although people are probably always surprised when their expectancies are violated, when this surprise also leads to an attribution that the source of the message is highly likely to be accurate, *this can attenuate subsequent message processing activity*. When surprise is not accompanied by inferences of greater source trustworthiness, however, the surprise alone would be expected to enhance message processing. These speculations should be investigated in future research. (Priester and Petty, 1993, p. 33, emphasis our own)

A number of conclusions can be drawn from the Priester and Petty study. First, the study confirmed that when subjects are exposed to an expectancy disconfirming manipulation (similar to what one would experience following reception of two-sided messages) source honesty will be higher than when the expectancy is confirmed. Second, the study found that when the need for accuracy is high, and subjects have a low NFC, if there are source credibility cues in the communication, then these individuals will simply use these to form their attitudes. On the other hand, if there are no source credibility cues, then even low NFC subjects will tend to rely on the quality of the arguments. As for high NFC subjects, there do not appear to be significant differences in the *level of message scrutiny* between those who

perceive the source as more honest and the others. The experimenters did find, however, directional support for greater attitude change in the case of high NFC subjects exposed to the more "honest" source, than for the subjects who perceived the source as untrustworthy.

A number of implications for the study of the mediating mechanisms of two-sided advertisements follow from this study. First of all, in a typical advertising situation, the audience is thought to be made up of both high and low NFC individuals. When this audience is exposed to an expectancy disconfirming message, we would expect the low NFC subjects to *rely more* on inferences of source credibility to form their attitudes than on message scrutiny (assuming that these individuals can carry out the minimal argument processing to detect the sidedness manipulation). The opposite would be expected in the case of high NFC individuals. However, it should be kept in mind, that both groups of subjects are still expected to carry out some of the other type of processing. As was also found, high NFC individuals still made inferences to higher source honesty following reception of the expectancy disconfirming message; and, moreover, they appear to have used this information in forming their attitudes. Also, the fact that a typical advertising audience should contain both high and low NFC individuals, means that both modes of processing will tend to occur.

4.3.3.3 The Hunt, Domzal, and Kernan Study

Hunt, Domzal, and Kernan (1982) applied the above theory to persuasive appeals in advertising. According to them, the value of the model for consumer analysis is centered on how it hypothesizes persuasive effects. Two features are noteworthy: First, explicit recognition is given to the effect on a recipient of simply expecting to have to deal with a

persuasive communication. Second, this anticipatory process is explicated through attributional analysis. The model thus proposes that in order to increase their credibility, communicators should transmit messages that disconfirm recipients' pre-message expectancies, when those expectancies manifest reporting bias.

These researchers carried out an operational test of that model by explicitly testing the pre-message schemata and expectancies that attend realistic, consumer-related advertisements. The question which they asked was whether advertisements that disconfirm pre-message expectancies -- that don't say what one would expect an advertisement to say about a product -- engender "entity" attributions (those which infer the cause of the message to be the product, per se, rather than some situational, reporting bias).

Their findings revealed that in three of the four performance attributes, subjects who were exposed to a persuasive appeal accepted the promotional message more when they received a message that disconfirmed expectancies (it should be noted that in this experiment, the authors manipulated the expectancy confirmed/disconfirmed factor by using messages that either claimed superiority on all four product features, or that made such claims on only three of these attributes, while on the fourth attribute the product was not claimed to be superior -- in other words, they used two-sided, versus one-sided appeals⁸).

Another finding was that the confirmation/disconfirmation of expectancies factor did not have any significant main effect on source credibility. However, there was *directional confirmation* of the hypothesis since the means of the two measures were in the hypothesized order.

⁸ Their results may also have been affected by NFC and the operation of cognitive responding. Also, it should be kept in mind, that although a two-sided message disconfirms expectancies, a message that disconfirms expectancies need not be two-sided.

The attributional approach that they were testing rested on a *pre-message process* -- message recipients are thought to utilize *pre-message schemata*, which result in pre-message expectancies. Messages that confirm these expectancies are taken to be evidence confirming pre-message schemata. When a promotional message confirms bias-related expectancies, message recipients should explain that message in terms of their bias-related pre-message schemata. On the other hand, when a seller's message disconfirms such expectancies, message recipients have evidence indicating their pre-message reasoning should be rejected. Accordingly, their explanation of the seller's message should emphasize factors other than the biasing element(s). Unfortunately, results did not fully support the hypothesized pre-message process. For the case of the attributions about the corporation, it appears that the expectancy-confirmed subjects changed their schemata in terms of the cause that appears "most plausible" in explaining messages of superior claims. While for the expectancy-disconfirmed group, "if such an 'up-dating' process did occur, it was not as prevalent" (Hunt et al., 1982, p.291).

In sum, we only have partial support for the Eagly et al. model applied to the advertising context. Firm support was only found for the hypothesis that disconfirmed expectancies - as operationalized by two-sided appeals - lead to enhanced message acceptance and "entity" attributions when pre-message expectancies anticipate reporting bias⁹. That is, receivers will be more likely to attribute the message to "real facts" about the product and less likely to assign cause to the situational factor. However, no support was found for the causal attributions based on *pre-message schemas* for the expectancy-confirmed group, and for the

⁹ Confirmation for the tendency of unexpected stands to be more persuasive than expected stands also comes from studies by Eagly and associates (Eagly, Wood, and Chaiken, 1978; Eagly and Chaiken, 1975; Eagly and Chaiken, 1976; Wood and Eagly, 1981).

up-dating of schemas for the expectancy-disconfirmed group. As Hunt et al. point out, however, the greater probability of receivers making "entity" attributions in the case of two-sided messages could just as easily be explained "solely in terms of the discounting and augmentation principles...these rules... are post-dictive and do not require the use of pre-message schemata or expectancies"¹⁰ (1982, p.291). It is important to note, however, that their study has confirmed the important role of expectations in the formation of attributions following advertising appeals. What did not receive full support was the hypothesized relationship between the pre-message and terminal causal schemas. But as the authors state:

That these comparisons did not emerge as hypothesized, however, might well be a function of the study's execution rather than a fault with the conception of pre-message schemata as mediators of marketing communication. Inasmuch as the post-dictive (confirmed/disconfirmed) comparison did behave as hypothesized, it might well be that we simply failed to operationalize the pre/post comparison properly. (1982, p.291)

4.3.4 Jones and Davis' Correspondent Inference Theory

The Jones and Davis' Correspondent Inference Theory is centered on dispositional attributions. According to this theory, attribution of a disposition to an actor is based on the observation of his action and its consequences or effects. An immediate problem faced by the perceiver is in deciding which of these effects, if any, were intended by the actor. Two factors are assumed to influence the extent to which the actor will be perceived to have intended a given action: the first, is the *assumption of knowledge* on the part of the actor and the second

¹⁰In a post-dictive application, the discounting and augmentation principles explain the superiority of 2-sided messages in a way similar to the Jones and Davis paradigm.

is the *assumption of ability* on the part of the actor. For intention to be inferred, both of the above conditions must be present.

In making dispositional attributions, two questions arise: (1) What dispositions will be attributed to an actor? (2) What factors influence the confidence with which such attributions are made? Most theoretical effort has been centered on the latter question, rather than the former.

According to Jones and Davis (1965) the certainty of correspondent inference depends on two factors: the desirability of the effects produced by the action, and the degree to which these effects are common to other behavioral alternatives that were available to the actor. Assume that an actor is observed to perform one of two possible behaviors, and that these behaviors would produce some common and some noncommon effects. The lower the perceived desirability of the effects produced by the behavior that is performed and the fewer the unique effects (i.e., noncommon effects) produced by that behavior, the more confident an observer will be in attributing a disposition to the actor. The particular disposition that is attributed will correspond to the unique effects produced by the behavior.

Jones and Davis suggested, and others have demonstrated (Ajzen, 1971; Lay, Burron, & Jackson, 1973), that the less a behavior is expected, given the actor's situation, the stronger is the perceiver's inference that the actor's disposition corresponds to the actor's behavior. When applied to persuasion, this principle suggests that the less a communicator's position is expected, given the pressures in his or her situation, the stronger is the recipient's inference that the communicator's attitudes correspond to the position taken in the message. Eagly, Wood, and Chaiken (1978) found support for this proposition when the situational pressure

on the communicator stemmed from the opinions of the members of the audience. Numerous studies (e.g., Himmelfarb & Anderson, 1975; Jones & Harris, 1967; Jones, Worchel, Goethals, & Grumet, 1971; Miller, 1976) on the attribution of attitudes have also supported this principle, in relation to a variety of situational pressures.

Smith and Hunt (1978) have applied the Jones and Davis (1965) theory to explain how message recipients would invoke attributional processes to interpret the validity of the claims in an advertising message. Their research was prompted by the belief that covariance analysis may not be the optimal process operating in promotional situations. Their study proposed and tested the application of the theory to the varied-nonvaried product claim paradigm (i.e., two-sided versus one-sided approach). The results supported their hypothesis in that the varied product claim treatment had low prior probability and generated dispositional attributions just as correspondent theory predicted (Smith and Hunt, 1978). Other subsequent studies have given additional support to the correspondent inference approach (see, for example, Kamins and Assael, 1987). The Smith and Hunt study also put to rest the doubts as to whether or not individuals were in fact making product claim attributions in promotional situations.

The above findings are in sharp contrast to Eagly and Chaiken (1981) who find the Jones and Davis theory "less useful than Kelley's (1967, 1972a) analyses which emphasizes causal attributions about the message itself" (p.294).

According to Eagly and Chaiken, when recipients are deciding whether to adopt the communicator's advocated position, causal explanation of this position is the central problem. Recipients may also use a causal analysis to infer the communicator's dispositions. Yet, to

decide whether to accept the communicator's position, they must determine whether these dispositions, along with situational pressures, can or cannot be ruled out as causes of the position taken in the message. They go on to say that:

Although it may seem that inferences about the communicator's attitudes may have direct implications for message persuasiveness, it is doubtful that this is so. It is true that an inference that the communicator's attitude does not correspond to the position taken in the message covaries with perceived lack of communicator trustworthiness and with lowered message persuasiveness (Eagly et al., 1978). Yet these inferences of attitude-message noncorrespondence and communicator untrustworthiness stem from the congruence of the communicator's position with external pressures acting on him or her. And it is the causal prominence of these pressures, and the consequent discounting of external reality as a cause of the message, that are critical to lowering the persuasiveness of the message. Thus, the impact of attributions about the communicator's attitudes is, at best, indirect in relation to persuasion. (1984, p.295)

Eagly and Chaiken's position seems to imply that a two-step (or more) causal process (i.e., a causal chain) may be taking place. Inferences may be made about the disposition of the spokesperson and this disposition could be evaluated along with situational pressures to determine the cause of the position taken in the message. This second causal step appears to be critical and would be carried out using either the covariation or discounting/augmentation principles.

Work in the area of social cognition by Gilbert, Pelham, and Krull (1988), Quattrone (1982), Smith and Miller (1983), and Trope and associate (Trope, 1989; Trope, 1986; and Trope and Lieberman, 1993) seems to be partly in line with Eagly and Chaiken (1984) by demonstrating that person perception is a multistage process. For instance, according to Gilbert et al. (1988), perception would involve three stages: (a) categorization (i.e., identifying actions), (b) characterization (i.e., drawing dispositional inferences about the

actor), and finally, (c) correction (i.e., adjusting those inferences with information about situational constraints).

Basing themselves on two response-time measures, Smith and Miller (1983) were able to show that the quickest attributional judgments are those of intentionality and the actor's traits or dispositions, whereas the slowest judgments are those dealing with affective judgments and inferences about the repetition of an event and the event's *personal or situational causation*. On this basis they concluded that trait attributions occur earlier in the comprehension of an event than the determination of the causal locus.

The study by Gilbert et al. (1988) hypothesized and confirmed that the first attributional subprocess of characterization (the formation of trait attributions) is much more like categorization (the preattributional process) than it is like the second attributional subprocess - correction. In effect, they set out to show that characterization "is generally an overlearned, relatively automatic process that requires little effort or conscious attention, whereas correction (in essence, the causal inference of Smith and Miller) is a more deliberate, relatively controlled process that uses a significant portion of the perceiver's processing resources" (p.734). Their experiments confirmed their hypotheses. Perception appears to be a combination of lower and higher order processes, with the former requiring less effort than the latter.

In sum, the above two studies seem to indicate that during the person perception process, correspondent (dispositional) attributions may occur with a relatively lower degree of effort than the identification of the causal locus (i.e., the determination of person-cause or situation-cause). At first sight this appears to be contrary to Kelley (1971, 1973), Jones and Davis (1965) and Lord and Smith (1983), who posited that dispositional attributions were effortful processes. However, if one considers the entire person perception process, we have

both automatic and effortful stages occurring. Also, if one takes into account the factors thought to increase the effort expended in attributional thinking, two-sided advertisements should provide the right conditions for effortful attributions, including attributional corrections.

As was seen in chapter two, when attribution theory has been invoked to explain the processing of two-sided appeals¹¹, the tendency has been to (1) assume a one-step mechanism and (2) apply *either* the Jones and Davis or the discounting/ augmentation approach. Both of these approaches are closely related through the notion of "information value" (Jones and Davis, 1965) and have yielded satisfactory results (see for example, Kamins and Assael, 1987, footnote (2); and Golden and Alpert, 1987). Although the research findings point to a multistage process in person perception, this has not been tested in a marketing context and, more specifically, during perception of two-sided messages.

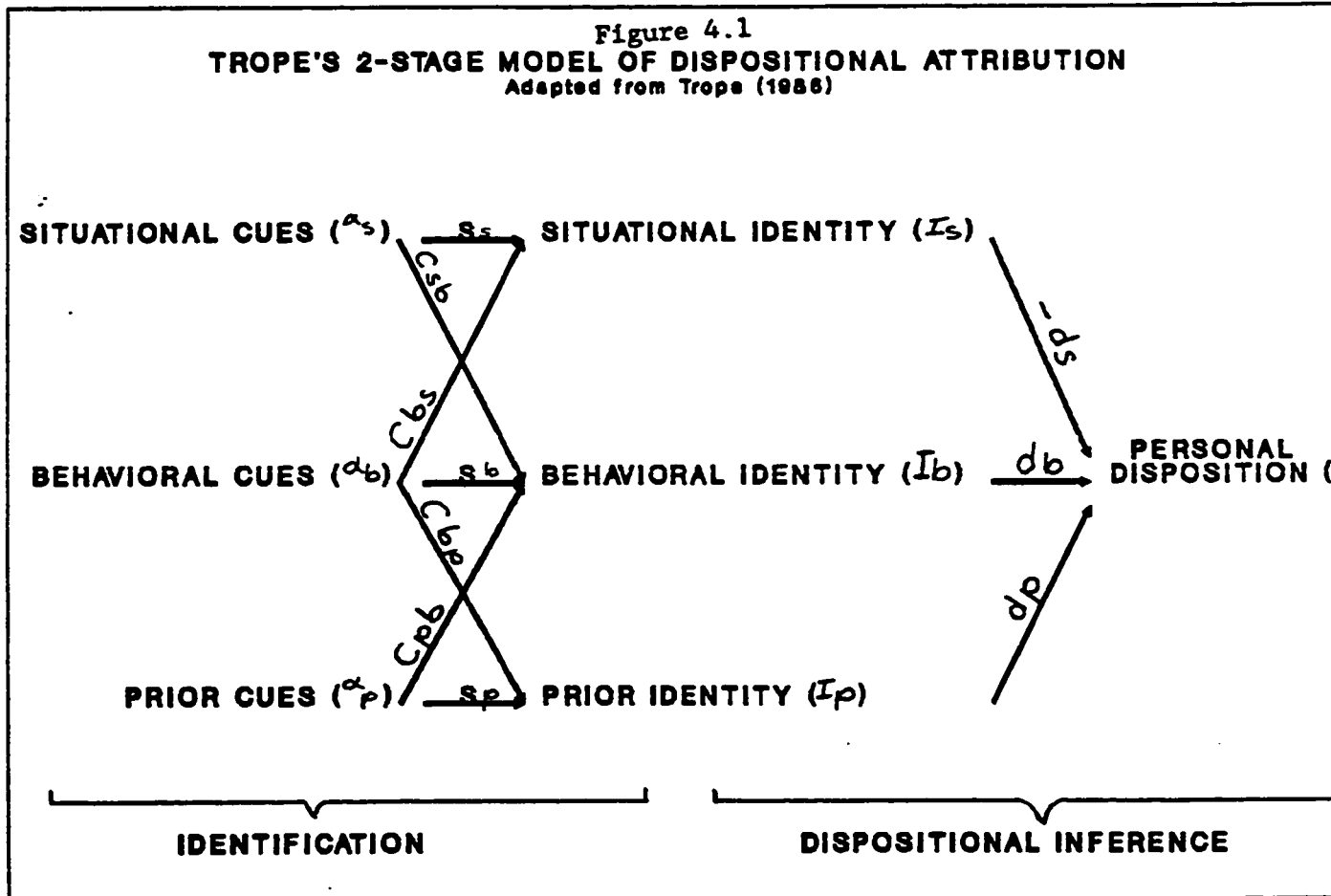
Another model which is rapidly gaining currency in the area of social cognition is that by Trope and associate (Trope, 1989; Trope, 1986; and Trope and Lieberman, 1993). Although it also posits a multi step process similar to those of Gilbert et al. (1988) and Smith and Miller (1983), it is a more comprehensive model which, among other things, posits *indirect effects from the various stimuli or cues onto other cues* as well as taking into account the perceiver's *prior information about the actor*. Since a complete review of the model is given elsewhere (see, for e.g., Trope, 1986; Trope and Lieberman, 1993) only an overview of the framework will be given, while stressing the aspects which are most relevant to the present study.

¹¹ As mentioned earlier, the other major theory applied has been the cognitive response (inoculation) theory.

4.3.5 Trope's Two-stage Model of Social Judgment¹²

4.3.5.1 Overview of the Model

Trope's (1986) model consists of two stages. In the first stage, termed the identification stage, incoming stimuli are construed and identified. These subsequently serve as input into a second stage - the inference stage - where observers use them to generate dispositional attributions. These two stages are shown in figure 4.1. Three factors appear to influence an observer's reverse inference of a particular disposition on an actor: The behavior itself following identification as given by (I_b); the effect of the situation as given by (I_s); and the prior knowledge which the observer brings to his perception of the actor's behavior, given by (I_p).



¹² The description of Trope's (1986) model which appears below is based on his article entitled: "Identification and Inferential Processes in Dispositional Attribution."

It will be noted from figure 4.1 that the attribution of a personal disposition is inversely related to the magnitude of the situational identity. This is due to the fact that both personal dispositions and situational inducements contribute to behavior. Hence the contribution of situational inducements must be subtracted from the personal disposition implied by the behavior itself. This is the familiar discounting/augmentation effect described by Kelley (1972). The exact nature of the dispositional inference stage will be described in greater detail in a later section.

The input to the dispositional inference process are stimuli which have been identified by the observer in attribution-relevant categories. Three sets of cues are involved in this first stage. The central factor, of course, is the actor's behavioral cues. However, this behavior can also be influenced by situational cues, and from past information about the actor. Trope's model, in effect, attempts to capture two important processes of perception: top-down and bottom-up effects. Top-down processes occur when actors apply their various schemas and expectations to categorize incoming stimuli. According to Trope, one important source of expectations is the knowledge of the context in which the stimulus occurs. "Context may imply, or at least prime an associated category, which, in turn, will be used in the processing of the stimulus information" (1986, p.240).

The diagonal arrows shown in figure 10 - for example those from situational cues or prior cues to behavior identity - represent the contextual effects of these cues on behavior identification. As each set of cues becomes better defined in meaning it provides contextual information for categorizing one or more of the other incoming stimuli. The meaning that a particular situation holds for a behavior and the meaning that prior information holds about

an actor serve as contextual information in the categorization of behavior cues. An example may help to clarify this: Knowledge that a message source has tended to display biased behavior with respect to his/her product and that the behavior is a result of a lucrative endorsing contract creates the *expectation* that the source will display biased behavior (or lack objectivity) in an advertising situation. As a result, it increases the chances that the behavior will be *identified* as biased behavior. The meaning of *behavioral cues* can also act in a similar way on the identification of situational and prior cues. In order to predict the outcome of the identification process, one must, therefore, also specify the determinants of the contextual effects. The strength of the contextual effects will vary directly with both the level of clarity (level of unambiguity) of the focal cues (i.e., the source of the contextual effect) and the level of ambiguity of the nonfocal cues (the target of the contextual effect). When the nonfocal cues are unambiguous, they tend to point to one and only one category. As a result, contextual information which might indicate a different categorization of the *nonfocal cues* is unlikely to affect the latter's meaning. On the other hand, when the nonfocal cues are *ambiguous*, and thus associated with more than one category, fairly clear contextual cues will strongly influence the observer's categorization of the former.

Since the identification process tends to be highly practiced and closely related to the properties of the stimulus information, this process is thought to be performed unconsciously and automatically. Although the dispositional inference phase can also occur spontaneously, as will be seen later, individuals can also carry out this stage in a more effortful and reasoned manner. Thus, according to Trope, the ultimate formation of dispositional attributions can be experienced as a quick, almost spontaneous perception on the part of perceivers. But as he

states: "As noted by Heider (1958), the speed and immediacy of such attributions do not rule out stagelike, partly inferential mediation" (1986, p.241).

The author develops an algebraic model of the joint operation of the two processing levels. In stage II, the attribution of a personal disposition (D) is assumed to be positively related to the identification of behavior (I_b), positively related to the identification of prior information (I_p), and negatively related to the situational identity (I_s). These effects are given by D_b , D_p , and D_s , respectively. Another way to consider these factors, is as weights given by the observer to the various identified cues in arriving at an overall attribution of personal disposition to the actor. These identifications are themselves the product of a previous process which involves the transformation of behavioral cues (α_b), prior cues (α_p) and situational cues (α_s) into more abstract representations. Each identification depends directly on the stimulus information from the corresponding stimulus cue as well as contextual information from the other stimulus cues. The direct effects of the cues on the respective identifications are represented by S_b , S_p , and S_s , with the latter being inversely related to the level of ambiguity of the former. The contextual effects, on the other hand, are given by C_{ij} and are shown as diagonals in the figure.

Of critical importance is the way each of the cues are seen to affect the ultimate attribution of personal disposition. As indicated earlier, both a direct effect as well as indirect effects are thought to occur. The direct influence of the cue on the ultimate attribution of personal disposition is represented by the product of the direct stimulus effect (S_i) and the inferential effect of the identified stimulus on dispositional attributions, represented by (D_i). The indirect effect, on the other hand, is represented by the product of the contextual effect

of the cue on the identification of a nonfocal cue (C_{ij}) and the inferential effect of the latter's identification on the dispositional attribution represented by (D_j).

These relationships are basically captured by the following formula:

$$D(\alpha_i) = \alpha_i (S_i d_i + \sum_j c_{ij} d_j) \quad \dots(1)$$

where $D(\alpha_i)$ denotes the attributional effect, $S_i d_i$ represents the direct effect of focal cues on dispositional attributions, and $\sum_j c_{ij} d_j$ denotes a summation over the different nonfocal cues affected by the focal cues; that is, the total indirect effect of focal cues on dispositional attribution.

Equation 2 represents the indirect contextual effect occurring during the identification process (i.e. the equation represents the *generic* contextual effect).

$$C_{ij} = S_i (1 - S_j) / C_j \quad \dots(2)$$

where C_{ij} represents the effect of the focal cue (i) on the non-focal cue (j) and C_j is a normalizing factor reflecting all possible contextual influences on the identification of the nonfocal cues. As can be seen, contextual effects will vanish when either the nonfocal cues are completely unambiguous (that is, $S_j = 1$) or when the focal cues are completely ambiguous (that is, $S_i = 0$). Contextual effects increase as the ambiguity of the nonfocal cues increases and as the ambiguity of the focal cues decreases. Keeping in mind equation 2, it is possible to relate this equation to the consequences of the cues' ambiguity for the attributional effect $D(\alpha_i)$ as given in equation 1. In the case in which the nonfocal cues, namely (S_j), are ambiguous, this would tend to strengthen the indirect effect via the identification of the nonfocal cues. When the direct and indirect inferences have the same sign, ambiguity of the nonfocal cues can only increase the attributional effect of the focal cues. In contrast, when the

direct and indirect effects on attribution have opposite signs, as is the case with *situational cues*, ambiguity of the nonfocal cues attenuates or reverses the attributional effect of the focal cues. Thus, in the case of two-sided messages, a reversal of the attributional effect of the focal cues means that less discounting for the situation will take place. Trope provides an example which helps clarify the above interactions. Take for instance the case of an actor which shows an ambiguous facial expression after having received his grades from a recent exam. Assuming that the observer is fully aware of the situation that prompted the individual's facial expression (i.e., that the actor's expression occurs following news of his/her grades), he/she will tend to carry out the two processes described above. Since the observer is cognizant of the constraints imposed by the situation, he/she may properly discount the contribution of the direct effects of the behavior cue. However, the behavior from which the situation is discounted, may already have been perceived in accordance with the situational effect (because of the behaviour's ambiguity). In this case, the facial expression may itself be identified according to the grades received. The same facial expression will be *identified* as happier in the context of success than in the context of failure. Because of the *positive nature* of the behavioral inference effect, this contextual effect of the grades may attenuate or even reverse their negative attributional effect. Hence, we can see that an ambiguous nonfocal cue can result in a weakening of the attributional effect of the situation (This may also help explain why two-sided messages are more effective than their one-sided counterparts in generating higher credibility). In referring to the contextual effect of the situation, Trope (1989, p.311) states:

In general, at the identification stage, the situation leads to the identification of behavior as expressing the very disposition from which the situation is subtracted at the inferential stage. Consequently, to the extent that the raw behavioral information is ambiguous, intrinsic or extrinsic situational inducements may produce little or no subtractive effect on tendency and dispositional inference....Even if fully subtracted, situational inducements may have little effect on tendency and dispositional inference because of their contextual effect on the perception of behavior.

In referring, on the other hand, to the effects of ambiguity of the focal cues, Trope (1986, p.243) states:

Ambiguity of the focal cues (low S_i) weakens both their direct and indirect effects on attribution. Hence, when these two effects have the same signs, ambiguity of focal cues always weakens their attributional effect. When the direct and indirect effects have different signs, this ambiguity will weaken or strengthen the attributional effect, depending on the other components of the direct and indirect effects. However, Equations 1 and 2 suggest that when the identified focal and nonfocal cues have the same inferential effect (i.e., $D_i = D_j$) ambiguity of the focal cues will weaken their direct effect more than it will weaken their indirect effect. Under these circumstance, ambiguous focal cues will always attenuate their attributional effect.

Experiments by Trope (1986), Trope and Cohen (1989), Trope, Cohen, and Maoz (1988), Trope, Cohen, and Alfieri (1991) confirmed the hypothesis that behavioral ambiguity reduces the negative effects of situational cues on dispositional judgments.

4.3.5.2 Effects of Prior Cues on Identification and Dispositional Attributions

Trope's model also incorporates the effects of "priors" into the model. These consist of past information about the actor. These could be an actor's past behavior, his/her appearance, and beliefs about the social groups to which the actor belongs - in other words, stereotypes.

The effects of priors can be expressed by the following equation:

$$D(\alpha_p) = \alpha_p (S_p d_p + C_{pb} d_b) \quad \dots(5)$$

where the various terms have an analogous meaning to the previously discussed effects of situational cues. However, as can be seen, unlike the case with situational cues, the attributional effect of priors is always equal to or greater than zero. This is because both (D_b) and (D_p) are positive relationships. This also means that the maximal (absolute) value of the attributional effect of priors is greater than that of the situation.

The contextual effect of priors on behavior identification can be expressed as follows:

$$C_{pb} = S_p (1 - S_b) / C_b \quad \dots(6)$$

In a manner similar to the effects of situational cues, the contextual effects of priors increases with increasing ambiguity of behavior $(1 - S_b)$ and decreases with increasing ambiguity of priors $(1 - S_p)$ and the presence of other contextual cues (C_b) . In effect, then, ambiguity in the priors will attenuate both the direct inferences and indirect inferences through behavioral identification. Behavioral cue ambiguity, on the other hand, can only increase the attributional effect of priors even beyond their own inferential effect. Trope points out an interesting aspect of the effects of priors:

Evidently, the contextual effect of priors biases the observer in favor of their confirmation. The very behavioral evidence used to confirm or disconfirm one's initial beliefs is perceived in a manner that already guarantees their confirmation. The effect of priors on identification thus acts to perpetuate initial stereotypes or specific beliefs about the actor....This may be particularly true for members of the out-group. Specifically, the relative unfamiliarity with the meaning of the behavior exhibited by members of the out-group may render their behavior ambiguous and, therefore, particularly susceptible to contextual effects of stereotypic beliefs. (1986, p.250)

The above effects may persist despite the fact that observers may make a concerted effort to discount the attributional effects of the stereotypes. First of all, the unconscious nature of the identification process means that perceivers may still be susceptible to the contextual effect of the stereotypes. Secondly, "the contextual effect of priors may result in the encoding of the priors-consistent meaning of behavior. Subsequent inferences from behavior are likely to rely on retrieval of that same behavioral meaning rather than that of the original stimulus information" (1986, p.251). In summarizing, Trope (1986, p.251) states:

...the model suggests that identification processes influence the attributional effects of situational cues and prior cues in opposite ways. Specifically, identification processes attenuate or reverse the attributional effect of situational cues but magnify the attributional effect of priors. This implication of the two-stage model is consistent with a large amount of anecdotal and research evidence showing the ubiquity and strength of prior expectancy effects, on the one hand, and the inconsistency and weakness of situational effects, on the other hand.

It is clear from the above, that since two-sided messages represent a fairly ambiguous behavioral cue, priors should have an important contextual effect on this cue (and concomitant indirect attributional effect) in addition to having a direct effect on dispositional attributions. Since priors represent the stored information which the message receiver brings to the perception task, it is clear that this could have a serious confounding effect on the study of the interaction of situational and behavioral cues - the main focus of this study. This problem being further compounded in a cross-cultural study. In order to prevent this effect, it will be necessary to carefully control for the prior information, for example, in the form of stereotypes, which subjects from various cultures will bring to the experiment. This will be further discussed in the chapter on methodology.

Just as situational and prior cues can have a contextual effect on behavioral cues, so can behavioral cues exert a similar influence on the former. One effect of this is that "from the alternative meanings of the situation and the prior evidence about the actor, those *that are consistent with the immediate behavior are more likely to be selected*. The identification of prior and situational cues is thus likely to shift in a behavior-consistent direction" (Trope, 1986, p.251). These contextual effects are also a function of the degree of ambiguity of the situational and prior cues as well as that of the behavioral cues.

In the current study, the contextual effect of the behavioral cues are believed to be rather weak. This is due to two factors: First of all the fact that the focal behavioral cue - the two-sided message - is ambiguous; secondly, because the situational and prior cues are expected to be fairly strong and unambiguous, and thus not susceptible to contextual effects from behavioral cues.

4.3.5.3 Cognitive and Motivational Resources and Judgement Accuracy

Trope and Liberman (1993) point out that motivation for accuracy and cognitive load are more likely to affect inferential *adjustment* rather than identification - in line with the work of Gilbert et al. (1988). High accuracy motivation and low cognitive load primarily increase inference effects but not identification effects. This is largely due to the fact that the latter effects tend to occur spontaneously. As a result, these factors make it more likely that situational inducements will have negative effects on dispositional judgments. As they further point out, salience of situational demands may also primarily influence inferential adjustment if subtle situational demands are sufficient to bias behavior identification but only highly

salient situational demands are adjusted for at inference (check Fiske and Taylor, 1991; Jones, 1990).

Although the identification effects of prior information are similar to those of situational information, they are used differently at inference. Prior information about the target person is integrated with the current behavior in inferring the target's dispositions, so that prior information that increases the perceived likelihood of a behavior and biases its identification, also increases the likelihood of dispositional inference.

4.3.5.4 Dispositional Inference as a Hypothesis Evaluation Process

Trope and Liberman suggest that during dispositional inference, observers in effect evaluate the dispositional hypotheses suggested by behavior identification. This is made up of two aspects:

- 1) the assessment of the diagnostic value of the identified behavior regarding such hypotheses; and
- 2) the integration of prior information about the target person.

The diagnostic value of a behavior depends on two kinds of behavioral probabilities:

- 1) the probability that a situation would produce such behavior given that a target has the hypothesized disposition (P under the hypothesis); and
- 2) the probability that the situation would produce the behavior given that the target does not have the hypothesized disposition (P under the alternative).

To have diagnostic value, a behavior should be probable for an individual possessing the hypothesized trait, but unlikely for someone without that trait. Strong inducements stemming from the situation diminish the diagnostic value of a behavior by making the behavior appear probable regardless of whether the actor actually has the hypothesized characteristic. Thus, the likelihood of the behavior under the alternative is used to adjust dispositional inferences for the impact of situational inducements. The uncertainty regarding behavior identification should also diminish the diagnostic value of a behavior.

Prior beliefs are combined with the diagnostic value of the immediate behavior at the inference phase. The immediate behavior is given greater weight at inference when it is highly diagnostic but prior beliefs are weak and nondiagnostic; conversely, prior beliefs are given a greater ponderation when these are strong but the immediate behavior lacks diagnostic value.

Insufficient motivational or cognitive resources may decrease the willingness or ability of perceivers to engage in the above inferential calculus. Specifically, lack of incentives may result in little or no motivation to make accurate judgments while distraction or time pressure may leave little cognitive resources to deal with the requirements of the inferential task. As a result, according to the authors, perceivers would resort to heuristic rules.

One heuristic rule which has a high probability of being used is the "pseudo diagnostic inference" (Trope and Liberman, 1993). In this approach, "the probability of a hypothesis given some data is taken simply as a function of the probability of the data given the hypothesis" (Trope and Liberman, 1993, p. 558). However, this is not an optimal decision rule according to the authors.

The analysis of the dispositional hypothesis shows that under motivational or cognitive constraints, perceivers may base their judgments on the likelihood of a behavior given the hypothesized disposition without sufficient ponderation of the likelihood of the behavior under the alternatives. "Thus, under unfavorable motivational or cognitive conditions, perceivers may fail to properly adjust their dispositional inferences for the influence of situational inducements on the target person" (1993, p.559). Work by Gilbert and his associates have also shown that cognitive load lowers the sensitivity of perceivers' dispositional inferences to situational constraints.

Another effect resulting from insufficient motivation or cognitive constraints is insensitivity to uncertain behavior identifications. Trope's (1978) earlier research on inferences from evidence recalled from memory, suggests that perceivers may experience difficulty in making allowance for the *uncertainty* present in the identification stage. This research found that individuals did not sufficiently adjust their inferences for inaccuracies in their memory, even when they were cognizant of such errors. Rather, they "focused on the diagnostic implications of the remembered evidence, acting as if their memory were accurate" (1993, p.559). These findings point to the fact that poor motivation or cognitive limitations may lead an observer to give less weight to the uncertainty inherent in the identification of behavior.

Lastly, limitations in motivation and cognitive resources can also give rise to the improper integration of prior and immediate behavioral information. Trope and Liberman (1993) point out that when prior beliefs are based on strong stereotypes or considerable familiarity with an actor, they are likely to be combined into judgment. This integration may be more difficult to carry out, however, when prior beliefs are founded on abstract base rates

or on an actor's membership in categories where the base rates are known but which lack well-developed stereotypes. In such cases, the salient behavioral information will most likely play a predominant role in judgment (Kahneman and Tversky, 1973, cited in Trope and Lieberman, 1993) and cognitive and motivational constraints may serve to augment this dominance. In other words, when the priors are not based on strong and clear information - e.g., strong stereotypes - there is a greater likelihood that judgment will be based on immediate behavioral information. This effect will be even stronger when there are insufficient cognitive or motivational resources.

Trope and Lieberman (1993, p.559) sum up the consequences of insufficient motivation and cognitive constraints as follows:

The common outcome of these deficits is *overconfident* correspondent inferences. When behavior is probable regardless of the hypothesized disposition, when behavior is identified with uncertainty, or when priors are inconsistent with the immediate behavior, perceivers' confidence that the target possesses the hypothesized disposition should be low. But if limited motivational and cognitive resources reduce sensitivity to these sources of uncertainty, this should result in unwarranted confidence that the target possesses the hypothesized disposition...

4.3.5.5 Comparison of the Gilbert et al. and Trope Models

Both the Gilbert et al. and the Trope model have a number of similar features. First of all, they both posit that social judgment - in particular the generation of dispositional inferences - involve a multi-step approach. Although the number of stages varies across theories, they all propose that the initial stage(s) are invariably automatic and spontaneous while the latter stages can involve more controlled and reasoned processes. For instance, in the Gilbert et al. (1988) framework, the first two stages, namely, categorization (the

identification stage in the Trope model) and characterization (the dispositional inference stage in the Trope model) are relatively automatic while the third stage, correction, is more deliberate and controlled. By contrast, Trope's model postulates only two stages: identification and dispositional inference. The first stage is thought to occur spontaneously while the second stage can involve either relatively quick and easy heuristic rules or more controlled and accurate inferential processes. Thus, instead of a three-step approach, as in the Gilbert et al. model, Trope's framework only stipulates two stages. However, the principal consequences of insufficient motivation to process or limitations in cognitive resources appear to be the same: the failure on the part of the observer to "properly adjust their dispositional inferences for the influence of *situational inducements* on the target person" (Trope and Liberman, 1993, p. 559). In other words, in the Gilbert et al. model, correction for the effects of situational inducements is a separate step requiring more control and processing resources on the part of the observer. In the absence of these resources, little correction will take place. In the Trope model, correction for these inducements will occur at the same time as the formation of dispositional inferences and the integration of prior information. Lack of processing resources should lead to the use of judgmental heuristics, most likely "pseudodiagnostic inference." The use of this heuristic means that perceivers will base their judgments on the probability of behavior given the hypothesized disposition without making sufficient allowance for the effects of the situation. Thus, the ultimate effects of the two models is the same. It should be pointed out, however, that the Trope model appears to be more in-line with the Heuristic-Systematic Model. For instance, at lower levels of cognitive ability and motivation, the Trope model posits that fairly effortless processing should occur

based largely on the use of quick and effortless heuristics. As the cognitive resources and motivation increases, the observer is more motivated to make accurate judgments and, as a result, will fully carry out the inferential calculus (Trope and Liberman, 1993). However, this does not preclude the use of heuristics. Both heuristics and bottom-up processing may occur. After all, individuals with greater motivation and ability will still execute the first stage in a relatively automatic manner. With an *automatic* first stage and a greater motivation to *accurately discount the effects of the situation in the second stage*, both processes will occur. This is similar to the tenets of the HSM model. What this means, of course, is that, strictly on the basis of the identification and inferential processes outlined in the above models, an observer should have a greater propensity to form "overconfident correspondent inferences" after observing an actor, say, presenting a two-sided message. In other words, on this basis alone, individuals in low levels of involvement should have a greater tendency to attribute more credibility to a message source following a two-sided message than in the case of higher levels of involvement. Other factors, however, are thought to reverse this effect. More will be said about this in a later section (in chapter 6).

4.4 Synthesis of Findings on the Attributional and Cognitive Response Mediation of Two-Sided Appeals.

As discussed previously, the principle objective of this thesis is to compare the differential impact of a particular advertising strategy, namely two- versus one-sided advertising, across cultures. To accomplish this it utilises an approach analogous to that described by Eagly (1981) for examining the relationship between personal characteristics of message receivers and their reaction to persuasive appeals: We examine how cultural variables

or dimensions of cultural variability influence persuasion through their action on the mediating processes specified by attitude theories. The method used also allows us to validate certain mediating processes in attitude change. Hence, a secondary objective of this study is to examine more closely the mediating factors at work during reception of two-versus one-sided appeals. Specifically, it examines the relative role or importance of attributional and cognitive response processes as mediators of such ads.

Two-sided appeals are not always more effective than their one-sided counterparts. From the evidence which was reviewed earlier, the following conditions favor two-sided ads:

- 1- When subjects are faced with a counterattitudinal ad.;
- 2- Related to (1), when subjects tend to counterargue the arguments in the appeal;
- 3- When subjects already have knowledge about the issue;
- 4- When the level of involvement is moderate to high.

The study by Sorrentino et al. (1988) revealed that two-sided messages are more effective when message receivers engage in systematic processing; whereas one-sided messages are more persuasive under conditions which favor heuristic processing. For the type of individuals most commonly thought of by researchers, namely, "uncertainty-oriented" individuals, systematic processing occurs under high levels of personal relevance, while heuristic processing occurs under low levels. On the other hand, for the "certainty-oriented" person, systematic processing would occur under conditions of low personal relevance, while heuristic processing is favored under high personal relevance conditions. These authors hypothesized and confirmed that for the former type of individual, two-sided appeals are more

effective than one-sided messages under high personal relevance; while the contrary occurs for people who are "certainty-oriented." The present study focuses on the "typical" individual as assumed by attitude theorists, namely "uncertainty-oriented" subjects (see Sorrentino et al., 1988). For these individuals, two-sided messages have a differential advantage over their one-sided counterparts under conditions of high personal relevance, but not under conditions of low relevance¹³. This study thus provides another important reason for controlling the level of involvement in the present study.

The findings from the studies by Kamins and Assael (1987), Priester and Petty (1993), and Hennessey and Anderson (1990), as well as the postulates of the Heuristic-Systematic model support the present author's contention that both mediating mechanisms are at work in the moderate to high involvement conditions.

In Kamins and Assael's experiment the focal product of the advertisement was a pen priced at \$20.00. Although pens may not create the highest levels of involvement (say, compared to some of the highly involving topics used in social psychology experiments; see, for e.g., Olson, Toy, and Dover, 1982), the higher price of this product, coupled with the fact that the experimental guise called for the subjects to give feedback for a proposed ad campaign, means that the task involvement was most likely quite high. Under these conditions, the researchers found significant evidence for the operation of both mediators.

¹³ Although attitude theorists assume that the "typical" message receiver is "uncertainty-oriented," most likely, an audience exposed to an advertisement will also contain subjects who are "certainty-oriented." This is similar to the NFC construct discussed earlier as part of the Priester and Petty (1993) study. Thus, studies examining the relative effectiveness of two-sided versus one-sided appeals may have to separate out the effects of these individual-level variables either by using them as blocking factors or as covariates.

The Priester and Petty (1993) study revealed that low NFC subjects tended to utilize the heuristic cue of source honesty (following the attribution of honesty from the disconfirmed expectations); whereas, in the same conditions, high NFC subjects tended to base their attitudes on argument scrutiny. However, for this latter group, there was also directional support for an interaction effect between source honesty and argument scrutiny.

Hennessey and Anderson (1990), basing themselves on a recent clarification of the ELM by Petty, Kasmer, Haugveldt, and Cacioppo (1987), set out to test the hypothesis that both high and low involvement subjects use both central and peripheral cues in generating cognitive responses. In the analysis of negative cognitive responses to peripheral cues, a marginally significant Involvement x Endorsement x Argument Strength interaction occurred. For the involved subjects it was found that *less* negative cognitive responses to peripheral cues occurred (i.e., a more desirable result) in the weak message situation when the endorsement was absent (i.e., the peripheral cue) as compared to when the endorsement was present, while a reversal occurred in the case of strong arguments. In this latter case, less negative cognitive responding occurred when the peripheral cue of "endorsement" was present than when it was absent. This adds further support to the notion that both argument quality and source honesty should exert either interactive or additive effects in high involvement situations. More support for this comes from the postulates and findings of the HSM model to be discussed below.

As was seen in the last chapter, the Chaiken and Maheswaran (1992) study supports the HSM's hypothesis that heuristic processing, for instance the effects of source credibility (or extrapolating to attributions) can affect the nature of systematic processing when a

message receiver is presented with ambiguous persuasive argumentation. In such conditions, a credible source should cause receivers to view the message in a more positive manner whereas a noncredible source should cause one to view the message negatively. More importantly, perhaps, is the finding that a direct path could form between the heuristic cue and attitudes, demonstrating the operation of additive effects. It is important to note, however, that "...the bias hypothesis is presumed to apply only to situations in which persuasive argumentation is ambiguous, or amenable to differential interpretation" (Eagly and Chaiken, 1993, p. 329).

When a receiver is exposed to a two-sided message, the perceived source credibility/honesty (a heuristic cue) can generate expectancies in the mind of the receiver which will influence the receiver's perception and evaluation of the persuasive arguments. Two-sided messages by presenting both positive and negative aspects of a product may be perceived as ambiguous. As Sorrentino et al. (1988, p.359) state: "...two-sided messages introduce uncertainty or ambiguity into the issue and require active integration of inconsistent material." As a result, we can expect that during a recipient's processing of such messages, the source credibility heuristic can bias systematic processing and (i.e., the generation of cognitive responses) as well as exert additive effects. The latter effects can also be conjectured from the findings of the earlier study by the authors (viz., Maheswaran and Chaiken, 1991). As they demonstrated, when systematic processing does not furnish information that contradicts the validity of the heuristic information, the heuristic processing can also exert an additive effect.

A two-sided message with negatively correlated primary and secondary attributes should display congruence between the heuristic cue and the message content. For instance,

returning to the stimulus ad used by Pechmann (1992), namely, the premium ice cream high on calories, the disclaimed attribute, the high caloric value, serves a dual role: it serves in the attributional process to enhance credibility and it serves to reinforce the primary attributes through the correlational inference process described earlier. Thus, the enhanced credibility about the source/claims brought on by the disconfirmed expectancies is reinforced by (congruent to) the natural association which exists between the rich and creamy taste of the ice cream and the high caloric value invoked by the message content. It is hoped that the present study will contribute to the persuasion literature by demonstrating the simultaneous action of these mechanisms in a cross-cultural setting. This is an important area of research since, according to Eagly and Chaiken (1993, p. 344), "it is probable that existing research considerably underestimates the extent to which heuristic cues influence persuasion when recipients engage in systematic (central) processing."

CHAPTER 5

CULTURE AND INFORMATION PROCESSING

5.1 Cultural Factors and Cognitive Responses

This chapter will examine how culture interacts with the mediating processes described in the previous chapters. Tamilia's work on the source evaluation process across cultures will also be reviewed. This is one of the few studies which has incorporated ethnicity into a cognitive response model of persuasion. The main thrust of the chapter, however, is centered on theories dealing with culture's effects on the construal of the "self." This is an area which is rapidly drawing the attention of cross-cultural psychologists (e.g., Triandis, 1989; Markus and Kitayama, 1991; Bochner, 1994; Morris, 1993). We will review this literature and "tease out" the implications of the theories for dispositional attributions and the generation of cognitive responses following reception of one or two-sided appeals. This chapter will also present the covariates to be used in the study. These are the individual difference and cultural variables that could contribute to error variance and which will be the object of statistical control.

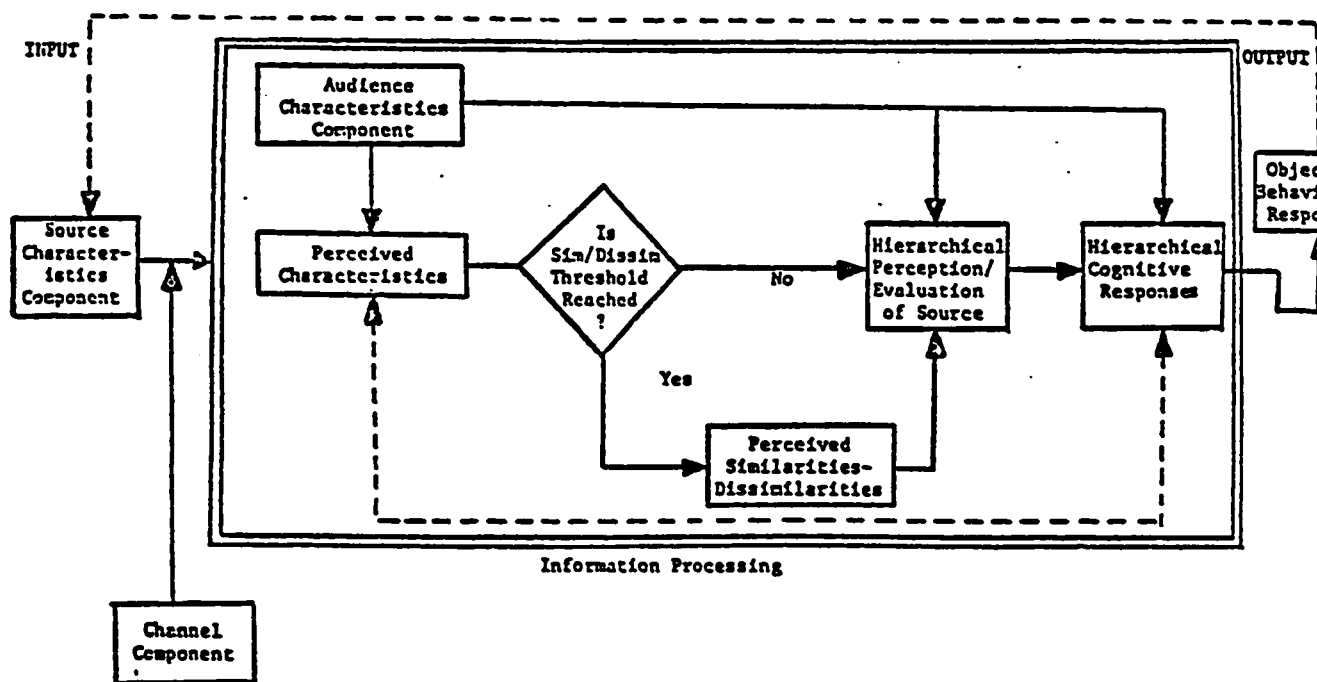
5.1.1 The Source Moderator Model

Tamilia's Source Moderator Model as depicted in Figure 5.1 represents a conceptual modeling of the source evaluation process, and is based in part on the information processing

approach to persuasion. As Tamilia (1977, p.58) indicates, "It is a more comprehensive model appropriate for the study of not only the persuasion process, but also of the persuasive process on a cross-cultural level." It is centered on the communicator and not on structural or content aspects of the message. In particular, it focuses on:

- 1- The specific characteristics possessed by the communicator;
- 2- The similarities-dissimilarities of these characteristics to the audience and the saliency of these properties to the audience;
- 3- The resultant perception and subsequent hierarchical evaluations of the source by the audience;
- 4- The final hierarchical cognitive responses to the message (or the brand presented in the message) as mediated by the audience's perception and evaluation of the source. The advertising message is considered only in terms of how its acceptance is facilitated or inhibited by the source.

Figure 5.1
The Source Moderator Model
(From Tamilia, 1977)



The framework relies heavily on the generation of cognitive responses on the part of the message receivers. Exposure of the receiver to a message source in essence places him/her in a situation very similar to the face-to-face interaction which occurs in small groups. This interaction leads to the first set of cognitive responses. These, however, will be moderated by the extent to which the audience is either oriented toward the source or toward the message, and by the degree of its similarity/ dissimilarity to the source. These differences in orientation being functions of the cultural orientation of the receivers.

Culture is posited to influence the information processing which occurs throughout the persuasion process. Some cultural groups are believed to give less attention to relevant information, make faster decisions, extract more of its information from source cues than message cues, etc., than other cultural groups. This aspect of the model was inspired by the work of Wright (1973a). As seen earlier, Wright advanced the notion that consumer information processing was not the result of a differential decision-making process, but reflected instead the way in which the decision-making process was executed. In turn, these executional differences are thought to arise from culturally determined situational or personality traits which impede the decision-making tasks. Three personality constructs were proposed: Achievement Motivation, Fatalism, and Self-Esteem. Tamilia (1977) examined the role of these variables in shaping the differences in information processing between French and English Canadians. They also provided a basis for his "Source Moderator Model." His findings are reviewed next.

5.1.1.1 Achievement Motivation

Wright (1973, as cited in Tamilia, 1977) has indicated that low achievement motivation fostered by rigid parental control and father-dominated families tends to produce individuals that have different information processing styles. Such adults appear to have *less differentiated cognitive systems*, with the result that they have more difficulty in making fine distinctions among objects. In addition, as Tamilia (1977, p.87) points out: "such adults seem to use a limited number of independent dimensions in making judgments, which means that their affective-meaning system is structured differently from that of adults brought up in a more relaxed environment."

He cites a number of studies which have shown a difference in achievement motivation for French Canadians relative to English Canadians, with the former having lower scores than the latter. Thus, he concluded that "Based on this n Ach variable alone, and extending the previous findings to a French-English context, information processing differences would be expected between the two groups" (Tamilia, 1977, p.87).

5.1.1.2 Fatalism

This construct is closely related to the self-esteem personality construct according to Wright (1973a, cited in Tamilia, 1977). It has also been shown to lead to variations in the way information is gathered and acted upon. Individuals who are highly fatalistic tend to be less attentive to pertinent information, are quicker at making decisions, have a greater inclination for secondary sources of information instead of primary sources, approach new information more from a source orientation than from a message orientation, and generally tend to be

more persuasive (Tamilia, 1977). Differences between FC and EC have also been reviewed by the author. Based on his literature review, it appears that the former have higher fatalistic scores and lower self-esteems than their English Canadian counterparts (Tamilia, 1977).

As Tamilia points out, groups showing the above traits (low achievement motivation, high fatalism and low self-esteem) have a lesser propensity to carry out abstract reasoning as opposed to concrete thinking. Such groups find extrinsic reward (i.e., concrete, tangible or observable rewards) more motivating than intrinsic rewards such as those generated from abstraction or internal imagination. He concludes that, as a result of such differences in personality traits, FC subjects should differ from their EC counterparts in information processing. In his words:

...projecting these findings to the French and English groups means that the French seem to evaluate objects more along concrete, objective, direct, sensual or sensorial dimensions. Therefore, in a source-message orientation context, the French would exhibit perhaps a greater affinity for source characteristic cues which are objective and direct and proceed to evaluate the source more along affective lines...than cognitive ones. (Tamilia, 1977, pp.88-89)

The Source Moderator Model was not intended as a predictive model nor was he testing it in his dissertation. He simply used it as a conceptual framework to enable him "to give form and content to source characteristic effects in an advertising communication situation" (p.73).

Tamilia proposed and tested a number of hypotheses using simulated radio commercials. Four are particularly relevant to the present study. The first hypothesis proposed that attitudinal responses toward the advertised brands will be more favorable for the French

group than for the English group. It was not confirmed. This implies that for higher levels, at least, the two groups displayed a remarkable similarity in information processing activities. The results for the following hypotheses, however, point to the existence of differences for lower level processing (see Tamilia, 1977).

The second hypothesis is based on Kelman's (1961) source-message orientation theory. This theory posited that the more source-oriented a person was (the French subjects, in his experiment), the greater the likelihood that this person would have lower message retention scores. Conversely, the more message oriented the person (the English group in his case), the greater the recall. As Tamilia indicates, the source is believed to facilitate message transmission in the case of the English, while inhibiting it in the case of the French, hence, a lower recall. The hypothesis was confirmed. a French-English cultural difference existed on the retention measures. In both measures that he used, and across all three commercials tested, the French scored lower than the English respondents, supporting, according to him, the greater source-orientation of French Canadians.

He also hypothesized that the two groups should display different attitudes toward the source of communication because certain cues (message or source cues) will be more salient for one group than for the other. As Tamilia states:

...given a difference in content and orientation of the perceptual and evaluative processes between the two groups, it should follow that source evaluations would reflect these differences. (1973, cited in Tamilia, 1977, p.)

This hypothesis was also strongly supported. Source cues appeared to have been processed differently across the two groups. The differences in retention scores and the different attitudes displayed toward the source points to a difference in information processing at lower

levels (Tamilia, 1977). This led Tamilia to conclude that, overall, there are information processing differences between the groups - at least at lower levels.

The last hypothesis relevant for the present research is the following (H14):

"The source evaluation equation will be different between the French and English groups in predicting attitude toward the advertised brand." (p.183)

The rationale for this hypothesis stems from the source moderator model. In fact, the notions that the source and audience similarity-dissimilarity continuum produce differential effects on source evaluations (e.g., credibility, attraction, etc.) and that these different dimensions in turn have a differential impact on message acceptance factors (e.g., attitudes toward the advertised brands) summarizes the major theme that underlies the model. Essentially, the hypothesis states that for the French group, attraction and status (source-oriented source evaluations) will be better predictors of attitude change; while for the English groups, credibility (competence and trust - message-oriented source evaluations) will explain more of the variation in attitude change. The findings failed to support this hypothesis. The regression equation did show, however, that the groups attached differential weights to the source evaluation factors in formulating attitudes toward the brand: most of the source variables entering the equation at the various steps of the step-wise regression procedure were different between the two groups.

In conclusion, Tamilia's research demonstrated that, in the case of French and English subjects, culture can influence source evaluation in two ways: through the differential

orientation of the audience toward the source and message, and through the differences in cognitive processes.

The differences in information processing (and cognitive responding) were centered on the processes by which observers perceive and evaluate the source based largely on source cues. However, Tamilia does not specify the exact nature of the cognitive responding which occurs. No mention is made of the production of counter- or support- argumentation. All we can conclude is that the two groups showed a difference, albeit subtle, in information processing, partly as evidenced by differences in retention scores and weighings of the source evaluation dimensions.

5.1.2 Culture and Construals of the Self and Impact on Cognitions

As we have seen in Chapter 3, Perloff and Brock (1980) have advanced the notion of "ownness bias" and of a person's "need to feel unique, distinctive, and different" in order to explain the mediating role of cognitive responses in persuasion. Moreover, they believe that individuals will vary in their uniqueness needs. In this section we will review the literature which links the different construals of the self across cultures and variations in uniqueness needs among individuals. This will enable us to establish a direct linkage between culture and cognitive responding.

According to Cooley (1902), the "self consists of all statements made by a person, overtly or covertly, that include the words 'I,' 'me,' 'mine,' and 'myself.'" As Triandis (1989, p.506) points out, "all aspects of social motivation are linked to the self" including attitudes, intentions, norms, roles, and values. For instance aspects of the self are revealed in overt or

covert statements such as "I like object X," "I think that doing X results in Y," or "I think that peace is very important in our society." These statements representing attitudes, beliefs, and values respectively. Since cognitive responses represent a person's self-generated thoughts or beliefs, we would expect these to be heavily influenced by a person's construal of the self.

5.1.2.1 Markus and Kitayama Conceptualization

In their monograph on culture and the self, Markus and Kitayama (1991) reviewed evidence which indicated that the construal of the self "can influence, and in many cases determine, the very nature of individual experience, including cognition, emotion, and motivation" (1991, p.224). Moreover, culture is also believed to influence this construal. As a result, we would expect the self to act as a mediator of culture's effects on the above individual experiences. Two particular construals and associated cultures were the focus of the study: cultures which have an *independent* view of the self and cultures which have an *interdependent* view.

Although there are aspects of the self which are universal, many other aspect of the self are specific to particular cultures (Markus and Kitayama, 1991). In their article, the authors focus on what they feel in an important difference across cultures: the perception that individuals have of the relationship between the self and others and, especially, the degree to which they see themselves as separate from others or as connected with others. They posit that "the significance and the exact functional role that the person assigns to the other when defining the self depend on the culturally shared assumptions about the separation or

connectedness between the self and others" (1991, p.226). This leads to two construals of the self: Independent and Interdependent. In the former, which is found in many Western cultures:

The normative imperative...is to become independent from others and to discover and *express one's unique attributes*....Achieving the cultural goal of independence requires construing oneself as an individual whose behavior is organized and made meaningful primarily by reference to *one's own internal repertoire of thoughts, feelings, and action*, rather than by reference to the thoughts, feelings, and actions of others. (1991, p.226, emphasis our own).

The authors also point out that this construal has other labels such as individualist and idiocentric. They believe that, on average, a greater number of individuals from Western countries will adhere to this view than will individuals in non-Western countries. For these individuals it is their "inner attributes that are most significant in regulating behavior and that are assumed, both by the actor and by the observer alike, to be diagnostic of the actor. Such representations of the inner self are thus the most elaborated in memory and the most accessible when thinking of the self..." (p.227).

In contrast to cultures whose members hold more of an independent construal, members of many non-Western cultures hold more of a connected view of the self. As the authors state:

a normative imperative of these cultures is to maintain this interdependence among individuals....Experiencing interdependence entails seeing oneself as part of an encompassing social relationship and recognizing that one's behavior is determined, contingent on, and, to a large extent organized by what the actor perceives to be the *thoughts, feelings, and actions of others* in the relationship. (p.227)

They go on to add that

Unlike the independent self, the significant features of the self according to this construal are to be found in the interdependent and thus, in the more public components of the self. (p.227).

The terms "collective" and "allocentric" have also been variously used for this view of the self. In this view, the others in the collectivity become an integral part of the definition of the self. Although internal attributes also play a role in the interdependent self, these tend to be *elusive and unreliable*. As a result, *they are not thought to play an important role in regulating overt behavior* especially if this behavior involves significant others. An important distinguishing characteristic of the interdependent selves from independent selves is that in the former the individual's autonomy is subservient to the primary task of interdependence (Markus and Kitayama, 1991).

Among the cultures which exhibit more of an Interdependent construal of the self, the authors mention the mainland Chinese, Hispanics, Filipinos, Thais, Japanese, Africans, and East Indians.

In sum, the degree to which an individual feels "connected to others" will have an impact on the formation of the individual's self which, in turn, will regulate his/her behavior. Construing oneself as independent implies that he/she will have a *propensity to feel more unique* and independent from others; whereas construing oneself as interdependent means defining oneself in terms of significant others and thus *putting less stress on uniqueness*. Two studies, one by Radford et al. (1991) and Bochner (1994) have given empirical support to the above differences in self-concept.

It should be pointed out, however, that "others" play an important role only insofar as the "others" are members of the actor's in-group and, moreover, that the actor has a reasonable assurance that the "others" will "continue to engage in reciprocal interaction and mutual support" (p.229). As the authors state:

Attention to others is not indiscriminate; it is highly selective and will be most characteristic of relationships with "in-group" members. These are others with whom one shares a common fate, such as family members or members of the same lasting social group, such as the work group. Out-group members are typically treated quite differently and are unlikely to experience either the advantages or disadvantages of interdependence. Independent selves are also selective in their association with others but not to the extent of interdependent selves because much less of their behavior is directly contingent on the actions of others. Given the importance of others in constructing reality and regulating behavior, the in-group-out-group distinction is a vital one for interdependent selves, and the subjective boundary of one's "in-group" may tend to be narrower for the interdependent selves than for the independent selves (Triandis, 1989)" (p.229).

A number of researchers had previously shown that the self-system plays a key role in the regulation of both intra personal and interpersonal processes. Among the former can be cited self-relevant information processing, affect regulation and motivation; whereas among the latter processes can be found person perception, social comparison and the seeking and shaping of social interaction.

The authors hypothesize that the way the self is construed, either from an independent or an interdependent perspective, forms one of the "most general and overarching schemata of the individual's self-system. These construals recruit and organize the more specific self-regulatory schemata" (1991, p.230). As a result, *if a cognitive activity involves the self, the nature of the self-system will have a major impact on this activity*. Specifically, the authors posit that the divergent self-systems will impact cognition in three ways: (1) Individuals with

interdependent selves are expected to be more sensitive to others than their independent counterparts; (2) For the case of individuals with interdependent selves, the unit of representation of both the self and the other will also contain a specific social context. It is within this context that the self and other are embedded; (3) The social context and the presence of others will also influence some basic, nonsocial cognitive activities such as categorizing and counterfactual thinking.

One of the major assumptions of their theory is that the process by which an individual thinks in a social situation is intimately related to what the individuals are thinking about. As a result, the way the self (or any other object for that matter) is construed, should impact the way one thinks about the self or any cognition relevant to the self, others, or social relationships.

5.1.2.2 Components of the Self and Dimensions of Cultural Variability -Triandis' Conceptualization

In a similar vein to that of Markus and Kitayama (1991), Triandis (1989) also posits that the way individuals perceive the self has implications for the way the individuals *sample* information, the way they *process* information, and the way they *assess* information. More specifically, people will sample information that is self-relevant more frequently than that which is not self-relevant; people will process self-relevant information more quickly than information that is non-self-relevant; and, finally, individuals *will assess information that supports their current self-structure more positively* than information which challenges this self-structure.

Triandis' (1989) conceptualization of the self is based on earlier work by Baumeister (1986) and Greenwald and Pratkanis (1984). These researchers had advanced that the self was made up of three components - the private, public, and collective selves. The private self refers to the cognitions that involve traits, states, or behaviors of the persons"; the public self refers to "cognitions concerning the *generalized other's* view of the self"; while the collective self refers to cognitions dealing with a view of the self that is formed from an identification with some collective (e.g., family, coworker, tribe, etc.). Triandis' contention is that, depending upon the culture that an individual is a member of s/he will sample the above kinds of selves with different probabilities. As a result of this differential sampling of the selves across cultures, one can expect to see differences in social behaviors. The extent of sampling will depend essentially on the complexity of the universe of units to be sampled as well as on the probability of selection of a unit from that universe (Triandis, 1989). The higher the complexity of a self, in turn the result of the effects of cultural variables, the greater the probability that they will be sampled. For instance, if the collective self is complex, there are more "collective-self units" that are available for sampling, thus raising the probability that the collective self will ultimately be sampled. The same applies to the public and private selves. Also, through the process of stimulus and response generalization and spreading activation, when a unit of a particular self is activated, it increases the chances that other units of the same self will be activated and thereby increase their salience. Increasing the salience of a unit increases its probability of being sampled (Triandis, 1989).

The sampling process will result in a particular blend of selves and this, in turn, will influence social behavior. As Triandis (1989, p.508) states:

Depending on which elements are sampled and if the elements have action components, social behavior will be influenced by the particular self. Sampling of both public and collective elements suggests an allocentric self; sampling of exclusively private elements suggests an idiocentric self. Of course, in most cases the elements that are sampled are of all three (private, public, collective) kinds.

From this it appears that although all three selves will be sampled, *one predominant orientation* will manifest itself. He further goes on to say:

Sampling of a particular self will increase the probability that behaviors implicated in this aspect of the self will occur, when situations favor such occurrence. For example data suggest that people from East Asia sample their collective self more frequently than do Europeans or North Americans. This means that elements of their reference groups, such as group norms or group goals, will be more salient among Asians than among Europeans or North Americans. (Triandis, 1989, p.508).

Triandis' theorizing thus converges with that of Markus and Kitayama. a particular individual's background will determine the complexity of the self and will determine the extent to which various aspects of the self will be sampled or invoked in a specific situation. This will not only determine the ultimate nature of the individual's self, but will also result in the most salient sets of beliefs, attitudes, values, etc. being sampled at the same time. For instance, if an individual has a fairly complex private self, the cognitions and attitudes associated with this self will be most salient and will impact his/her behavior to a greater extent than the elements from the other selves. As part of the salient cognitions of this individual we would expect an acute need for *independence* and *uniqueness*. In the case of individuals who sample more complex collective selves, on the other hand, we would not expect this need to be as strong and/or be as salient as in the former case.

Although even an individual with a complex collective self could ostensibly generate the same number of cognitive responses or self-generated thoughts as a more "private" individual, the latter would probably value these thoughts to a greater extent because they represent one of his/her *own products and helps set him/her apart from the others*.

Triandis (1989) points out that evidence has been found for different selves across cultures (see, for e.g., Marsella et al., 1985). However, this evidence according to him "has not been linked systematically to particular dimensions of cultural variation" (p.508). One of the aims of Triandis (1989) was thus to define three dimensions of cultural variability which are thought to be responsible for different samplings of aspects of the self across cultures. The three dimensions are individualism-collectivism, cultural complexity, and tight versus loose cultures. Only the first dimension will be examined here. Individualism/Collectivism is equivalent to the dimension proposed by Markus and Kitayama (1991). Thus Triandis' discussion offers a rationale for their work as well.

Numerous cross-cultural theorist (e.g., Hofstede, 1980; Hsu, 1981; Hui & Triandis, 1986; Kluckhohn & Strodtbeck, 1961) have identified individualism-collectivism as the major dimension of cultural variability (Gudykunst & Ting-Toomey, 1988). The construct is found to be important in both Western and Eastern philosophy and is fundamental to analyzing the norms and rules underpinning different cultures (Hsu, 1981). It is a key variable to understanding differences between cultures on a variety of different psychological and social aspects (see, for e.g., Trubiski, Toomey, and Lin, 1991; Kagitcibasi & Berry, 1989). It also seems to have strong etic endorsement (Ting-Toomey, 1989). In essence, the individualism/collectivism dimension deals with the relationship between the individual and

the collectivity. Members of individualistic societies are more centered on their own needs, goals, and interests rather than on those of the collectivity. On the other hand, members of collectivistic societies are more focused on the in-group and its needs, goals and interests.

There is also considerable within-culture variation of the above construct. At this level, it is considered a psychological property of the individual. Different terminologies are used to represent the within- and between-culture variations of the construct. The personality attribute corresponding to the culture-level variable of collectivism is the trait of *allocentrism*; the analogue of individualism is known as *idiocentrism*. (Triandis et al, 1993). Allocentric and idiocentric individuals can be found in all cultures; although there will be more of the former in collectivist societies, and more of the latter in individualist cultures. Whether we are looking at the between-culture or within-culture variation of individualism-collectivism, *conceptually* the constructs appear to be the same (Triandis, personal communication, August, 1994). More will be said about the similarities and differences in the construct in the methodology section of this paper.

Triandis notes that child-rearing patterns in individualistic cultures stress self-reliance, self-actualization, independence and finding yourself. This pattern increases the complexity of the private self. The corresponding increase in elements in the private self means that more will be sampled by members of these cultures, leading to a greater likelihood that the private rather than the other selves will be sampled as individualism increases. In collectivist cultures, on the other hand, child-rearing stresses "the importance of the collective..." (p.512). As a result, the collective self is more complex, and the probability that the collective rather than the other selves will be sampled increases with greater collectivism.

Preliminary support for these hypotheses was provided by research findings cited by Triandis. In this research, Northern European and Asian students were compared with respect to their rates of sampling of the collective self. More specifically, the students had to complete 20 sentences that started with "I am...", and the mean percentages of their responses that referred to "social category" were obtained. Results revealed that subjects from individualistic cultures (e.g., Northern Europe, Illinois) had lower mean percentages than students from Asian and Pacific backgrounds (e.g., Japanese, Chinese, Filipino).

Triandis (1989) also posits that a number of variables should also moderate the degree of sampling of the collective self, namely, social class, ethnocentrism, degree of homogeneity of the cultures, as well as the size, number, and stability of the in-groups. For instance, he claims that the upper class individuals will have a lower propensity to sample the collective self, in contrast to the lower classes who would tend to sample the collective self with greater frequency. a reversal should occur, however, among members of the lower-lower classes where these individuals may again sample the private self with a higher frequency.

Cultures that are faced with external threats, competition with out groups and common fate tend to experience greater degrees of ethnocentrism. These are, according to Triandis, the same factors that increase the likelihood that individuals will sample the collective self.

With respect to ingroups, the author posits that increases in the size of the in-group, increases in the number of in-groups with which an individual is associated; and decreases in the stability of the in-groups will lead to a lower probability of sampling of the collective self.

In sum, the self is constituted of three components: the private, the public, and collective selves. a person's perception of his/her self will most likely be made up of varying amounts of these components, but will most likely show a predominant effect toward one specific orientation. Subjects from individualistic cultures will sample the "private" self with greater frequency, while individuals from collective cultures will tend have a bias toward the "collective" self. As a result, the behavior of individuals from the former cultures will tend to be governed more from the elements drawn from the "private" self. In contrast, the behavior of members of collectivist cultures will be governed by "collective" self elements. Members of individualistic cultures should thus have a greater drive to achieve independence from others and to define themselves in terms of their own products rather than in terms of the thoughts, feelings and actions of others. In short, such individuals should have a greater uniqueness motivation.

According to Snyder (1992) and Fromkin (1968, 1970), individuals develop their self theory to achieve a sense of uniqueness vis-a-vis other members of their society. This strong motivation to be unique, however, appears to hold more in individualistic societies than in collectivistic ones (Markus and Kitayama, 1991). As a result, these differences in "uniqueness motivation" should also moderate the causal effects of self-relevant thoughts in persuasion. More specifically, self-generated and self-targeted thoughts from members of collectivistic societies should be less persuasive (and less predictive of attitudes) than the thoughts invoked by members of individualistic societies.

5.2 Cultural Variations in Attributional Processes

A number of researchers have recognized the importance of the effect of ethnicity on attributional diversity (e.g., Pettigrew, 1978; Detweiler, 1978; Bond, 1983; Miller, 1984; Shaw, 1990). According to Detweiler (1978), "it can be concluded ... that culture can have an important impact on the attribution process, at least in certain contexts" (pp. 260-261).

Culture appears to impact the attribution process in two ways: By influencing the factors that people use to explain events and others' behavior; and by regulating or moderating the degree to which individuals engage in active, conscious information processing (Gudykunst and Ting-Toomey, 1988). Two variables are thought to have an important influence on the propensity of individuals to infer either *dispositional* or *situational* attributions to an actor's behavior: individualism-collectivism and control-subjugation (Kluckhohn and Strodtbeck, 1961). Control-subjugation, as well as a third variable, namely, Hofstede's (1980) uncertainty-avoidance, also appear to influence the degree of *effort* expended in attributional thinking.

Considerable research has examined the impact of the different construals of the self, and the related dimension of individualism-collectivism, on the first form of influence. This literature points to a fairly strong treatment effect, and will be reviewed in the following section. Since the literature is not as well developed in the case of the last two variables, these will be reviewed in the covariates section of this chapter.

5.2.1 Culture and the Dispositionist Bias

The two most current theories proposed to explain cultural influences on the extent to which observers explain actors' behavior in trait terms are those centered on differences in the construal of the self and cultural meaning systems (e.g, Miller, 1984; Morris, 1993; and Newman, 1993) and differences in level of context between cultures (Ehrenhaus, 1983).

Miller (1984) advanced the notion that cultural differences in dispositional attributions result from the fact that in Western cultures the person is conceived as a discrete, individual entity, whereas, in non-Western cultures the person is perceived in a more holistic fashion. These conceptions of the person being acquired by individuals over their developmental spans. Thus, according to her, when members of Western cultures are about to make inferences on the causes of behavior, dispositional or internal properties of the agent will tend to be primed as explanations for the behavior. In contrast, since the primary normative unit in Eastern cultures is the social role, this will tend to prime situational/ contextual factors as explanations for an agent's behavior. This hypothesis was supported in her study examining U.S. and East Indian subjects. In still another East Indian - American comparison, in this case assessing reactions to simulated descriptions to a rape trial, L'Armand, Pepitone, and Shanmugam (1981), found that 28% of the U.S. subjects versus 12% of the East Indians blamed the *victim* for the incident. Newman (1991) also found this effect in comparing 10-11-year old Anglo Americans with their Hispanic counterparts. Evidence for spontaneous trait inferences were found in the former, but not in the latter. Thus, results from this research shows that the dispositional bias may be a culture-bound phenomenon.

Newman (1993) has reviewed the literature dealing with the influence of individualism-collectivism on the construal of behavior. As he states: "How individualist or collectivist a society is ... has implications for beliefs about what determines why people behave the way they do" (p. 246). He cites the work of Markus and Kitayama (1991, p. 224), which indicated that the construal of the self "can influence, and in many cases determine, the very nature of individual experience, including cognition, emotion, and motivation."

As was discussed earlier, Markus and Kitayama (1991) believe that for people having an independent view of the self, such as those from Western countries, it is their "inner attributes that are most significant in regulating behavior and that are assumed, both by the actor and by the observer alike, to be diagnostic of the actor" (p. 227). In contrast, members of many non-Western cultures hold more of a connected view of the self. As the authors state: "...the significant features of the self according to this construal are to be found in the interdependent and thus, in the more public components of the self" (p. 227). A study by Radford et al. (1991) has empirically demonstrated these differences (see also Bochner, 1994). The notion of independent and interdependent self is an individual-level construct. At the cultural level, the key dimension is thought to be individualism/collectivism. In essence, the individualism/collectivism dimension deals with the relationship between the individual and the collectivity. Members of individualist societies are more centered on their own needs, goals, and interests rather than on those of the collectivity. On the other hand, members of collectivist societies are more focused on the in-group and its needs, goals and interests. In individualist countries, one should find more people with an independent view of the self than individuals with an interdependent view; while the opposite would be the case with collectivist cultures.

According to Newman (1993), Markus and Kitayama's analysis seems to signify that the Fundamental Attribution Error may be more applicable to individualist cultures than to collectivist ones. He points to the findings of Miller (1984) as evidence of this.

Although the work of Miller (1984) was carried out with East Indians, Morris (1993) has also been able to demonstrate the same effects with Chinese subjects. This study, contemporaneous to that of Newman also aimed at showing that an attributor coming from an individualist culture will have a social theory centered on the "person"; whereas his/her counterpart originating in a collectivist culture will have a social theory centered on the "situation." Starting from this central principle, Morris proposed and tested the following three hypotheses:

- 1- During the formation of attributions, American subjects would be biased towards dispositional explanations of the behavior of an actor; whereas Chinese subjects would be biased toward situational explanations;
- 2- That this cultural difference in attributional biases extended over the social domain, but not to the physical domain; and
- 3- That this cultural difference could fundamentally influence all manner of causal cognition - verbal explanations, social perceptions, as well as counterfactual thinking.

These three hypotheses received strong support. These results - along with those of Miller, L'Armand et al., and Newman - demonstrated that there are significant differences in the attributions made by subjects from different cultures. Moreover, these differences extend across the social domain and the different facets of causal cognition. In other words the effect is robust and is not limited to one or two cultures.

One of the aims of the Newman (1993) study was also to better understand the processes that mediate the cross-cultural differences in the tendency to emphasize dispositional factors. Using the Gilbert et al. (1988) model as his framework, he conjectured that differences in person perception across cultures may originate either from norms governing the extent to which individuals will "correct" initial inferences for situational factors, or, alternatively, may arise in the early stages of processing (Newman, 1993). He believes that Miller's findings provide evidence for the former. These findings seem to suggest that individualists overemphasize dispositional interpretations of behavior because they devote less attention to situational factors in the correction process.

He points out, however, that the initial two stages of the dispositional inference process differ in an important way from the final correction stage: they are relatively automatic. Newman's two experiments were centered on examining differences across two cultural groups, in terms of how they *categorize* behaviors into trait categories. He carried out these experiments using as an independent variable the individual difference measure of idiocentrism. At the psychological level, Individualism and Collectivism are reflected in personality dimensions known as idiocentrism and allocentrism (Newman, 1993). As he points out, "people in individualist cultures will be more idiocentric than those from collectivist ones,

and people from the latter societies will be more allocentric" (p.250). For this reason he assessed only the idiocentric dimension. Results confirmed his predictions that individualists have a greater propensity to *categorize* behaviors in trait terms - even without an explicit impression formation goal.

Although his experiments did not assess the differential effect of cultures varying in terms of idiocentrism/individualism on the *characterization* of people (the second subprocess in the Gilbert et al., 1988) model, Newman (1993, p. 262) does point out the following:

"...the relatively automatic use of traits to categorize behavior may facilitate such inferences. Bassili (1989; see also Hamilton, 1988) notes that once a trait concept is activated and used to identify a behavior, its mere accessibility increases the likelihood that it will participate in subsequent information processing. As a result, dispositional concepts will come to play a dominant role in inferences about and cognitive representations of others. In general, even simply identifying a behavior in trait terms can have important consequences for subsequent social information processing (see Newman & Uleman, 1993)."

Ehrenhaus (1983) applied Hall's (1976) high/low context framework to explain cultural effects on attribution processes (see also Shaw, 1990). It appears particularly applicable to the present topic since it is the only framework developed to date which is communication-based and which has seen wide applications in this field (Gudykunst and Nishida, 1986). According to Hall (cited in Ehrenhaus, 1983), in high-context cultures (HCCs), much of the information to *focus expectations* and guide the attribution of meaning is contained in the *physical context* or is *internalized in the person*. In low-context cultures (LCCs), *considerably less information to focus expectations* and guide the attribution process is contained in the physical context or is presumed to be shared by the individuals who are

interacting (Ehrenhaus, 1983). In such cultures, messages must be high in information value, and communication tends to "reflect more the character of the interactants than the character of the situations, since constraints upon their behavior are fewer than in HCCs" (Ehrenhaus, 1983, p. 264).

Ehrenhaus (1983, p. 263) hypothesizes that members of HCCs would be "attributionally sensitive and predisposed toward situational features and situationally based explanations." Members of LCCs, on the other hand, would be "attributionally sensitive to and predisposed toward dispositional characteristics and dispositionally based explanations." Unfortunately, to the best of the authors' knowledge, Ehrenhaus has not empirically tested his theory. According to Gudykunst and Ting-Toomey (1988), however, the previous study by Miller (1984) as well as a study by Tannen (1979) offer support for his argument.

There is a strong similarity between the two theories especially with regard to the relationship of the person to his/her environment and with the notion of "context." Miller sees individuals from Eastern cultures, for instance, as being closely integrated with their surroundings, in contrast to individuals from Western cultures which are separate and independent from their context. Thus, in the former cultures the context plays a much greater role in an individual's interpersonal behavior than in the latter case - in line with Hall's framework. Also, the notion of "context" as used by Ehrenhaus (1983) is intimately related to the individualism/collectivism dimension. Gudykunst and Ting-Toomey (1988) posit that the dimensions of low- high-context communication and individualism/collectivism are isomorphic. They indicate that all cultures that Hall (1976, 1983) has labeled as low-context are individualist given Hofstede's scores; whereas all the cultures labeled as high context are

collectivistic. Thus, according to them, low- and high-context communication are the most common forms of communication found in individualist and collectivist cultures, respectively.

In sum, the common thread running through both theories is the individualism-collectivism dimension. Implied by both approaches is the notion that an individual's perception of an agent – especially in a communication setting – depends upon a culture's orientation on this dimension (see also, Hall, 1976).

5.2.2 Culture and Causal Dimensions in Achievement-Related Contexts

Studies by Smith and Whitehead (1984) and Schuster, Forsterlung, and Weiner (1989) also provide support for the above findings. In the first study, for instance, the author examined attributions for promotion and demotion made by American and East Indian subjects. The author hypothesized and confirmed that the Indian subjects would attribute external power factors more frequently as explanations of work-related positive and negative outcomes than American subjects. The latter, instead, should have a greater propensity to invoke the salient factors of ability and effort (attributions to the person) in their explanations for the same outcomes. Since situational and dispositional attributions imply external and internal causal explanations, respectively, the findings are pertinent to the present study.

The above studies thus support the notion that members of collectivist cultures would have less of a propensity to explain an actor's behavior in trait terms than would a member of an individualist culture. Moreover, there is strong evidence that this effect acts by moderating the subprocesses of person perception proposed by Gilbert et al. (1988).

5.2.3 Level of Individualism-Collectivism of Focal Cultures

Much of the research in support of the above theories has compared subjects from Western (mostly the U.S.) and Eastern societies, in particular, the East Indians and Chinese. There is, thus, strong evidence that the latter tend to ascribe more situational causes to behavior than the former. Most of the Eastern cultures have also been shown to be highly collectivistic. For instance, studies by Hofstede (1980), Hui (1988), Leung (1987, 1988), and Kwan-Shing Chan (1994) have shown the Chinese to be strongly collectivistic. As for the East Indians, the evidence seems to be mixed. For instance, work by Miller (1984) and Nedd and Gruenfeld (1976) point to relatively high levels of collectivism in this society; while Sinha and Tripathi (1994) believe that both individualistic and collectivistic characteristics co-exist. In Canada, Richer and Laporte (1973) have conjectured that French Canadians are more collectivistic than their English Canadian counterparts. Two studies by Lortie-Lussier and associates (Lortie-Lussier, Fellers, 1991; Lortie-Lussier, Fellers, and Kleinplatz, 1986) have supported Richer and Laporte's conjecture and demonstrated that French Canadians are more collectivistic than their English counterparts. A recent study by Punnett (1991) is especially revealing. Anglophone and Francophone managers in a government department were surveyed with respect to their cultural values orientations, their language, and their preferred leadership style. The values orientations were those based on Hofstede (1980) and consisted of Individualism/ Collectivism, Uncertainty Avoidance, Power Distance, and Masculinity. The only significant difference found between the groups, was on the dimension of Individualism. The Anglophones had a score of 62, while the Francophones had a score of 48.

Given that there may be anomalies with some particular cultures on this dimension, the present study, in contrast to earlier cross-cultural studies with two-sided appeals, will first measure the degree of individualism-collectivism of the samples to ascertain whether the Anglo Canadians and HKC samples are, indeed, polar opposites on this dimension.

5.3 The Covariates

5.3.1 Self-Esteem

As was seen earlier, Self-Esteem (SE) is an important factor in influencing the persuasibility of individuals as well as their propensity to engage in attributional thinking. Moreover, there is empirical evidence that SE varies across cultures, including the four focal cultures of this study.

5.3.1.1 Self-Esteem and Cognitive Responding

The research reviewed in Chapter 3 gave considerable support to the influence of SE on the propensity to counter-argue. Thus, individuals with high self-esteems should generate more Counterarguments and assign more weight to them when altering their attitudinal structures than their low SE counterparts.

5.3.1.2 Self-Esteem and Cognitive Effort

As noted earlier, individuals with low SEs are less attentive to relevant information, spend less time making decisions, and have a lower tendency of engaging in abstract reasoning. High SE individuals, on the other hand, have a greater propensity to engage in

"bottom-up" or effortful processing. It should be pointed out, however, that although low SE individuals will have less propensity to engage in *effortful* attributional thinking, they should, nevertheless, be able to carry out the initial person-perception processes to the same extent as their high SE counterparts. Thus, for both low and high SE subjects, the identification stage should occur to the same extent. Because of the indirect effect of the situation on the behavioral cues, we should see a strong identification of the behavior in attribution-terms and, consequently, this should lead to a *fairly strong dispositional inference on this basis*. However, since high SE subjects have a greater propensity for carrying out extended information processing, they should engage in a greater level of correction or discounting (for situational cues). Hence, on this basis, the final dispositional inference should be *weaker* than for the case of low SE subjects. In order to detect the message sidedness manipulation - embedded within the message itself - receivers will require a minimum amount of information processing. One can hypothesize that as the inclination for information processing increases, as in the case with high SE subjects, there should be a greater "awareness" of the message sidedness cue. Hence, despite the fact that high SE individuals tend to "discount" the dispositional attributions of source credibility to a greater extent than their low SE counterparts, the fact that they are better able to detect the sidedness manipulation would make them more sensitive and responsive to two-sided messages.

5.3.1.3 Self-Esteem and Attitude Toward Two-Sided Messages

The study by Chebat and Picard (1988) reviewed in chapter two found that message sidedness interacted significantly with self-acceptance. High self-accepting individuals

revealed a more favorable attitude toward two-sided messages than individuals low in self-acceptance. However, self-acceptance is intimately related to self-esteem (see, for e.g., Robinson and Shaver, 1973): high SE individuals should consistently show high levels of self-acceptance; while low SE subjects *may or may not* show high levels of self-acceptance. What this implies is that a sample of subjects with a high level of SE, should have a higher *mean level* of attitude toward two-sided messages than would a sample of low SE subjects.

In sum, the above findings show that individuals with high self-esteems have a greater propensity to counter-argue, are better able to detect sidedness manipulations, and have more positive attitudes toward the ad than their low self-esteem counterparts. The effect of this individual difference variable should manifest itself both within a given culture as between cultures. Considerable empirical research has also shown that modal self-esteem varies across cultures (see, for e.g., Bond and Cheung, 1983; Leung and Drasgow, 1986; Rohner, 1975). Thus, cultures which have a lower modal level of self-esteem should tend to be less persuaded by two-sided messages than cultures ranking high on this variable.

In collectivist cultures, however, an additional factor comes into play: the fact that self-esteem in these cultures has different antecedents than in the case of individualist cultures. This is the topic to which we now turn to.

5.3.1.4 Terror Management Theory of Social Behavior: The Psychological Functions of Self-Esteem and Cultural Worldviews.

Solomon, Greenberg, and Pyszczynski (1991) have proposed a broad theory of human social behavior known as *Terror Management Theory* which shows the relationship of self-

esteem to culture. This theory is based on a number of premises about human behavior which distinguishes human beings from other animals. First of all, in contrast to other animals, human beings share three cognitive abilities: the ability to conceptualize reality in terms of causality, the ability to conceive future events, and the ability of a person to reflect upon him/herself. Secondly, these unique abilities cause us to recognize problems with respect to various aspects of our existence which are largely beyond our control; a particularly important problem being our knowledge of our ultimate doom or death. Thirdly, this knowledge is a source of constant anxiety. This constant anxiety in turn motivates humans to seek some assurance that one can be spared from these terrifying outcomes.

Becker (1962, 1971, 1973, cited in Solomon et al., 1991) had earlier posited that human beings, faced with such terrifying prospects, used a symbolic means to help them cope with these events. This means involved the creation of culture. As Solomon et al. (1991, p.96) state:

These cultural worldviews imbue the world with meaning, order, stability and permanence, and by so doing, buffer the anxiety that results from living in a terrifying and largely uncontrollable universe in which death is the only certainty.

But they also point out that adopting a particular cultural worldview is necessary, but not sufficient to "assuage the terror resulting from our awareness of vulnerability and death" (p.97). The other important element is *self-esteem*. They claim that cultural worldviews "are constructed so that security can be maintained only through the belief that one is a valuable member of a meaningful universe" (p. 97). Thus, culture provides the standards of behavior for individuals to aspire to, but also the ultimate "rewards" to the individuals who meet these standards.

Self-esteem arises when an individual attains these standards and thus sees himself/herself as a valuable member of the culture. This self-esteem attenuates the anxiety that comes about from an individual's knowledge of vulnerability (Solomon et al., 1991). As they state: "By meeting these standards, people can sustain a sense of their own immortality" (p.97).

Self-esteem is also posited to consist of two components: (1) faith in a cultural worldview, and (2) the perception that one is meeting those standards of value and therefore has a significant role in the cultural conception of reality. This also implies that an individual's lack of self-esteem can arise in two ways: either from the feeling that s/he is not attaining the standards of value set out by the culture or from a lack of faith in the cultural worldview.

Of particular importance to the present paper are the authors' contention that self-esteem is a cultural creation. As they state:

People simply cannot have a sense of value without meeting the standards of the cultural worldview to which they subscribe; such prescriptions consist of both general standards and more specific role expectations (for both occupational and social positions).

By conceptualizing self-esteem as the individual's perception of the extent to which he or she is meeting cultural standards of value, terror management theory implies that the effect that a given behavior will have on an individual's self-esteem is largely dependent on how that behavior is viewed within a particular cultural context. Given the great diversity of cultural values revealed by anthropological research, this analysis suggests that the standards through which people acquire and maintain self-esteem are not intrinsically tied to goodness or value. These standards have meaning only because they are derived from a particular cultural worldview. Although specific cultural standards for acquiring value can probably be traced to some extent to historical events and pragmatic concerns, the theory posits that these standards acquire their power because they are legitimized by the cultural worldview rather than because of any adaptive or utilitarian function that they might serve (cf Berger & Luckmann, 1967. (1991, pp. 103-104).

The above is clearly related to the work of Markus and Kitayama (1991). They have stated that "What constitutes a positive view of self depends...on one's construal of the self" (p.242)¹⁴. This becomes readily apparent since this construal is a function of one's cultural worldview. As they point out, for those with independent selves, feeling good about oneself means accomplishing the tasks needed to feel a "unique" independent individual. This means focusing on one's *inner attributes* and *asserting oneself*.

In contrast, for individuals with interdependent selves "Feeling good...may not be achieved through the enhancement of the value attached to one's internal attributes and the attendant self-serving bias. Instead, positive feelings about the self should derive from fulfilling the tasks associated with being interdependent with relevant others: belonging, fitting in, occupying one's proper place, engaging in appropriate action, promoting others' goals, and maintaining harmony.

In sum, from the work of Salomon et al. and Markus and Kitayama, it is evident that the concept of self-esteem is *universal* in the sense that, across all cultures, it plays a key role as an anxiety buffer. However, because of cultural differences in the construal of the self, significant differences will appear in how the self-esteem is formed.

Since the self-esteem is ubiquitous across cultures, the same should apply to the "self-acceptance" construct discussed earlier. As we have seen, self-accepting individuals are people who have a *realistic assessment of their own strengths and weaknesses* and who, nevertheless, feel "worthy" in terms of the *standards* of their culture. Thus, regardless of

¹⁴ Markus and Kitayama even go so far as stating that "Esteeming the self may be primarily a Western phenomenon, and the concept of self-esteem should perhaps be replaced by self-satisfaction, or by a term that reflects the realization that one is fulfilling the culturally mandated task" (1991, p. 230).

which culture a person is a member of s/he will still be capable of developing his/her sense of self-acceptance. However, this will be done on basis of the standards of the cultural values and beliefs to which s/he subscribes.

The work of Chebat and Picard (1988) was carried out in a North American context. In such a context, individuals will tend to base their self-esteems on their own inner attributes rather than on their relationships with others, since this is the way the self is defined in such cultures. Weaknesses will tend to be defined in terms of a person's own characteristics (i.e., characteristics of the person or extensions of the self - such as products, their communications, etc.). Under these conditions, higher levels of "self-acceptance" (or higher levels of SE) should lead to a higher propensity on the individual's part to accept a communicator who also projects "internal" weaknesses, say, in the form of a two-sided message. Subjects with lower levels of self-acceptance (typically associated with low levels of SE) will have less of a propensity to accept such a communicator.

On the other hand, for the case of individuals subscribing to an "interdependent" cultural worldview, their self-esteems are based on fulfilling the tasks associated with being interdependent with relevant others. These self-esteems are not based on internal attributes or on whether one revealed negative elements of a product (i.e., presented a balanced picture of a product in a commercial) or only positive elements. Hence, self-acceptance (and SE) should have no effect on preference for two-sided versus one-sided messages. This is further reinforced by the work of some researchers (e.g., Weiss, Rothbaum, and Blackburn, 1984) who argue that while self-esteem is a powerful psychological force in individualistic cultures, it may have a much weaker effect in collectivistic cultures (cited in Solomon et al., 1991).

The upshot of this, is that in collectivist cultures self-acceptance (or SE) should not act as a mediator of attitude toward the ad in the case of two-sided messages.

5.3.1.5 Self-Esteem and the Focal Cultures

Research seems to indicate that the two focal cultures should vary in terms of SE. Research by Bond and Cheung (1983), as well as Chiu (1993) have shown that Chinese subjects tended to have lower levels of self-esteem than Americans.

5.3.2 Kluckhohn and Strodtbeck's Control/Subjugation Dimension

The need or motivation for control is intimately linked to the attributional process: it can both serve to instigate causal thinking or it can lead to attributional distortions (see Hui and Toffoli, 1992, for an extended discussion).

Forsyth (1980) has pointed out that attributions have two functions: (a) to assist in better understanding the social world through implicit theories (the explanatory function) and, (b) to help in the development of expectations about the likelihood of the occurrence of future events (the predictive function). He asserts that both of the functions increase an individual's sense of personal control. Weiner (1985) has also argued that there are two key factors that trigger attributional thinking: (a) unexpected (vs expected) events, and (b) nonattainment (vs attainment) of a goal. Both goal attainment and predictability are essential antecedents of an individual's perceived level of control in a situation (Averill, 1973; Wortman, 1975). Empirical studies by Pittman and Pittman (1980), Pittman and D'Agostino (1985), and Burger and Hemans (1988) support the above theoretical assertions: individuals who are deprived of

control or who have a high need for control will have a greater propensity for carrying out attributional thinking. This greater propensity for engaging in attributional or causal thinking can also manifest itself in the enhanced tendency for *effortful* rather than automatic attributional thinking.

There is also ample evidence that perceived control not only serves to instigate attributional processing, but also distorts the nature of the causal inferences generated by an individual. Pittman and Pittman (1980) have reviewed several biases which provide evidence for this distortion. Among these is the "fundamental attribution error," or the greater tendency for people to attribute dispositional, rather than situational, causes to behavior. Other biases discussed: the self-serving biases, or the tendency for individuals to accept responsibility for success and deny responsibility for failure (Fiske and Taylor, 1991); and reactions to victimization. The first form of distortion is the most pertinent to the present study.

Empirical studies by a number of researchers (e.g., D.T. Miller et al., 1978; Smith and Brehm, 1981; Berscheid et al., 1976; Swann et al., 1981) have also supported the above contention. For instance, in D.T Miller's experiment, the researchers had subjects listen to two individuals playing a "prisoner's dilemma" game. After having viewed the two actors, some of the subjects were led to believe that they would be asked to play a similar game with one of the actors. It was found that the subjects who were led to believe that they would also play the game, "tended to make more dispositional attributions for that player's behavior as well as to believe that they knew the player's personality better" (Bain, 1983, p. 132). Miller explained the findings on the basis of the greater confidence generated in the subjects by making confident dispositional attributions; that is, for the subjects who thought they would

also engage in the game, making confident dispositional attributions enhanced their own confidence vis-a-vis their anticipated performance. a follow-up study by the same authors supports this interpretation: The researchers administered a need for control scale to the subjects and found that the above effect was most marked for those subjects who had high scores on that scale (cited in Bains, 1993). The study by Swann et al. (1981) is also of particular interest to the present research: They found that individuals who had just experienced control deprivation demonstrated an increased tendency to search for personality information in subsequent interaction with others. Bains (1983, pp.132-133) further notes that:

The generalizability of all the above findings to ordinary social life may be quite high, since many social interactions resemble a game of strategy in which success is crucially dependent upon accurate knowledge of one's partners. Against this background it would not be surprising if people exaggerated the extent to which they could infer a person's true character on the basis of predictor information purely in order to give them greater confidence and certainty in social interaction. Certainly, the literature seems to suggest that people have exaggerated notions concerning the stability of behavior across situations (Mischel, 1968) and that they tend towards 'non-conservative' prediction of one variable from knowledge of another (see, for instance, Ross, 1977; Tversky and Kahneman, 1974).

However, it should be emphasized that strong dispositional inferences about a person are likely to increase one's sense of control only if it is important to *predict* that person's behavior in the future. If, however, one's objective is to *change* the behavior, then *situational* attributions may be more appropriate.

The evidence discussed above thus points to the strong impact that a person's need for control will have on (1) the generation of attributions and the effort expended on them; and (2) the greater propensity to assign dispositional causes to an actor's behavior, at least under conditions in which it will be necessary to *predict* the actor's behavior in future. This last

assumption seems to hold in the case of subjects exposed to advertisements. For instance, as (individualist) receivers attend to a two-sided message, they will tend to attribute greater credibility to the source as a means of assessing the validity of the message.

Although a number of individual difference variables are related to people's motivation for control, for example, "desire for control" (Burger and Hemans, 1988), and "locus of control" (Rotter, 1966), another variable appears to have a greater bearing on the present cross-cultural study. This is the "control/ subjugation" dimension of Kluckhohn and Strodtbeck (1961). This variable has the advantage that it represents a dimension of cultural variability and appears to capture the concept of "motivation for control"¹⁵, (see also McCarty, 1995 , for a review). It will be reviewed next.

Control/subjugation represents the relation between humans and nature, and is classified into the three following value orientations: mastery-over-nature, harmony-with-nature, and subjugation-to-nature. Some cultures, e.g., the U.S. culture, place a strong value on controlling or harnessing natural forces. This also affects the individual members of the culture in that they feel that it is incumbent upon them to overcome obstacles and control the events surrounding them. The Chinese, on the other hand, subscribe more to the "harmony-with-nature" orientation. In this orientation, no distinction is drawn between or among human life, the natural environment, and the supernatural - each is an extension of the others (Gudykunst and Ting-Toomey, 1988). In the last cultural orientation, "subjugation-to-nature" there is a prevalent belief that human beings are powerless vis-a-vis the forces of nature:

¹⁵ According to Triandis (1984) the control/ subjugation dimension of cultural variability can be represented at the individual level by differences in internal versus external locus of control (Rotter, 1966; cited in McCarty 1995).

Nothing can be done to control these forces. Adler et al. (1986) point out that India would be an example of a culture adhering to this value orientation: Hindus believe that they cannot control the forces shaping their personal circumstances.

Because cultures which are oriented toward "mastery" of their environment display a higher need for control, these should have a higher propensity to engage in attributional thinking (Bond, 1983) and to carry out *effortful* attributions; in contrast to members of "subjugation to nature" cultures who would engage in more *automatic* processing (but see Shaw, 1990). What are the implications of this for the person perception which occurs during reception of two-sided messages? Although cultures which take a "subjugation to nature" stance should have less propensity to engage in *effortful* attributional thinking, they should, nevertheless, be able to carry out the initial person-perception processes to the same extent as cultures that value control over nature. Thus, for members of both "mastery" and "subjugation" cultures, the identification stage should occur to the same extent. Because of the indirect effect of the situation on the behavioral cues, we should see a strong *identification* of the behavior in *attribution -terms* and, consequently, this should lead to a *fairly strong dispositional inference on this basis*. However, since members of "mastery" cultures have a greater propensity for carrying out extended information processing, they should engage in a greater level of correction or discounting (for situational cues). Hence, on this basis the final dispositional inference should be *weaker* than for the case of members of "subjugation" cultures. In order to detect the message sidedness manipulation - embedded within the message itself - receivers will require a minimum amount of information processing. One can hypothesize that as the inclination for information processing increases, as is the case

with "mastery" cultures, there should be a greater "awareness" of the message sidedness cue. Hence, despite the fact that individuals from "mastery" cultures will tend to "discount" the dispositional attributions of source credibility to a greater extent than subjects from "subjugation" cultures, the fact that the former are better able to detect the sidedness manipulation should make them more sensitive and responsive to two-sided messages than the latter.

Although the above effect is important, the impact of the *fundamental attribution error* associated with "mastery" cultures may be even greater and in the same direction as the previous effect. The upshot of this, is that cultures which take a "mastery over nature" stance will tend to attribute greater dispositional causes to observed behaviors than would "subjugation" cultures.

5.3.3 Hofstede's Uncertainty Avoidance Dimension

In contrast to cultures low in uncertainty avoidance, cultures which demonstrate high levels on this variable have a lower tolerance "for uncertainty and ambiguity, which expresses itself in higher levels of anxiety and energy release, greater need for formal rules and absolute truth, and less tolerance for people or groups with deviant ideas or behavior" (Hofstede, 1979, p. 395).

Both Bond (1983) and Shaw (1990) conjecture that this dimension will be related to attributional activity. For instance, since individuals in high-uncertainty avoidance cultures dislike uncertainty and ambiguity, they will tend to depend on rules and regulations to provide a structure to their environment (Shaw, 1990). This led Shaw (1990, p.641) to hypothesise

that: "Individuals from high-uncertainty-avoidance cultures are less likely to rely on preexisting schemas to categorize the behavior of others." In order to reduce uncertainty, these individuals are driven to a careful analysis of all information. By contrast, individuals from low-uncertainty-avoidance cultures "are more willing to base categorizations on limited information" (Shaw, 1990, p.641).

Shaw, however, proposes the competing hypothesis that individuals from low uncertainty avoidance cultures might be more willing to engage in information search because their need to immediately reduce uncertainty is less. According to him, opposite effects can be argued logically.

There is another way in which this dimension may exert its effect. Since two-sided messages tend to be more ambiguous than one-sided messages (Sorrentino et al., 1988), and since individuals from high-uncertainty-avoidance cultures have an aversion to uncertainty and ambiguity, one could conjecture that these individuals would tend to favor one-sided messages. It would thus appear that the mechanism through which this variable operates may be more complex than the former.

5.3.4 Level of Education

There is also ample evidence which shows that two-sided messages are more effective for persons of higher education. For instance, Hovland, Lumsdaine, and Sheffield (1949) found that two-sided appeals were more effective for high school graduates; whereas one-sided messages were more effective with subjects having lesser education. a more recent study by Golden and Alpert (1982) also demonstrated this effect in a advertising context.

Subjects in their study were divided into two categories: subjects having *some* college education or less, and subjects having a college degree or better. They found a significant interaction between education and message sidedness for believability, information usefulness, and purchase intentions. As they indicate, across all three dependent variables, the highest means were found for subjects who possessed a college degree or higher and who were exposed to two-sided messages. These were followed by subject with some college or less, exposed to two-sided appeals; and, finally, subjects with some college or less exposed to the one-sided treatment. The least effective approach occurred using the one-sided treatment for subjects having a college education or higher. As they state: "The differential effectiveness of the two-sided treatment was much stronger for persons having graduated from college than for persons who had not graduated from college" (1982, p. 31).

5.3.5 Need for Cognition (NFC)

A study by D'Agostino and Rebecca Fincher-Kiefer (1992) demonstrated that NFC moderates the tendency to emphasize dispositional factors to observed behavior. High NFC subjects, in contrast to their low NFC counterparts, were shown to be less prone toward this bias by virtue of the fact that they can better take into account situational factors during the attributional correction stage of the Gilbert et al. (1988) model.

CHAPTER 6

OVERALL THEORETICAL FRAMEWORK AND RESEARCH HYPOTHESES

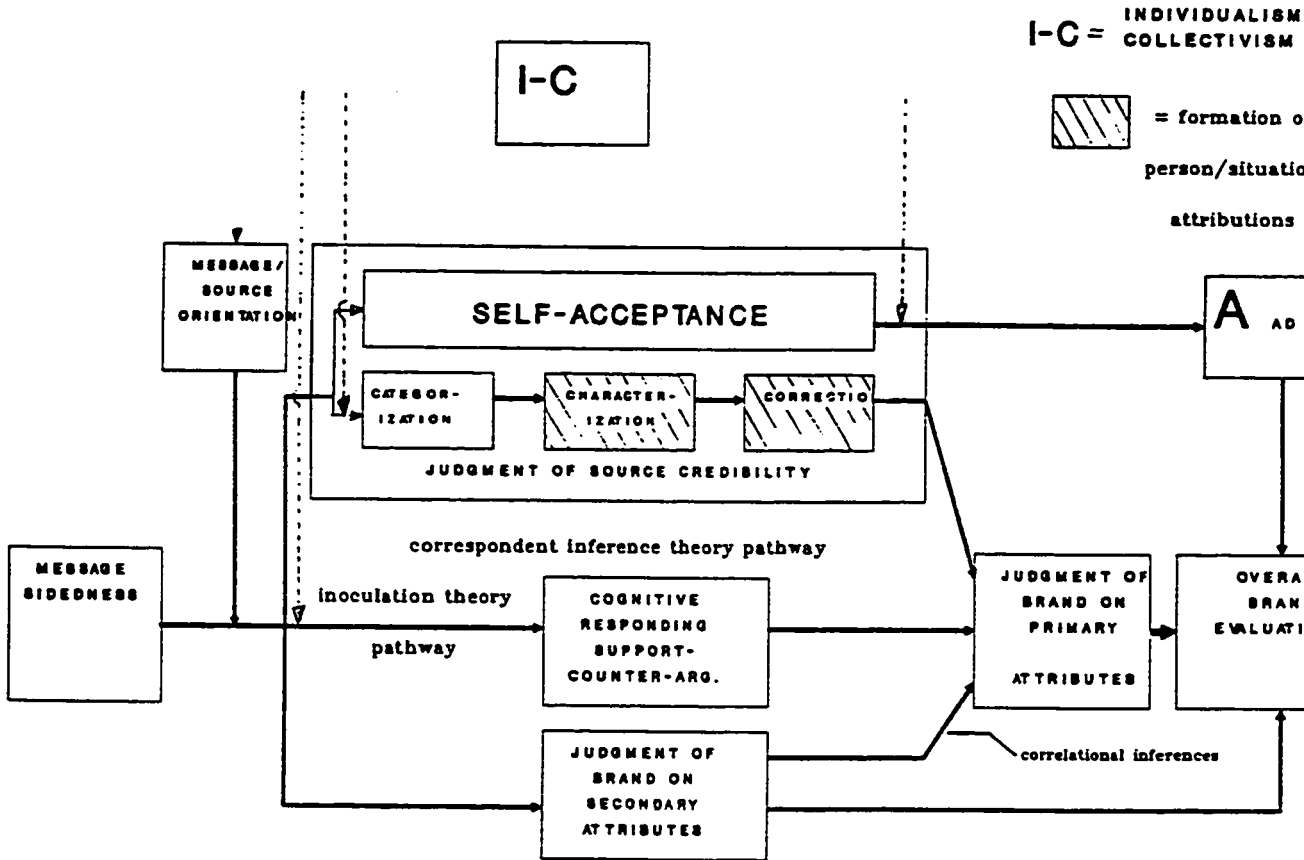
6.1 Introduction

The purpose of this chapter is to integrate the findings of the literature review into an integrative model of the differential effects of message sidedness and of the moderating effects of culture. As well, a number of research hypotheses will be generated from the literature review and from the framework presented.

As can be seen in Figure 6.1, the starting point for the framework is the reception of either a one-sided or a two-sided advertising message. Based on Hall's (1976) high-context, low-context culture concept, Kelman's source-message orientation theory, as well as the work of Tamilia (1977), it appears that different groups will display a differential orientation vis-a-vis the message or source component of a communication. This differential inclination is thought to influence the ability of members of different cultures to *detect* the sidedness cues within the communication.

Figure 6.1

Processes Mediating Two-Sided Ads and Cultural Moderating Effects



This first process then feeds into three other mediational mechanisms: the evaluation of source honesty (credibility); the attenuation (enhancement) of Counterarguments (support-arguments), and the formation of correlational inferences between the primary and secondary attributes. This last mechanism is thought to be necessary in order to counteract the effects of disclosing some negative aspect(s) of the brand. As Chebat and Picard (1988) have pointed

out, however, the judgment of source honesty (credibility) can be further decomposed into *two aspects*: the cognitive and affective aspects. This is also depicted in Figure 6.1. The affective aspect, thought to be moderated by a person's degree of "self-acceptance," impacts the attitude toward the ad. This, in turn, impacts the overall brand evaluation. The cognitive aspect of source honesty (credibility) is thought to operate through the formation of dispositional attributions. Both the cognitive aspect of source credibility as well as the attenuation of Counterarguments (or enhancing of support arguments) impact the judgment of the brand on the primary attribute, which, in turn, impacts the overall brand evaluations. The present study focuses primarily on the latter two mechanisms. One objective of this study is also to confirm, using a *structural equation modeling approach*, the *mediational role* of these *cognitive* mechanisms, and assess their *relative contribution* to the judgment of the brand on the primary attribute and to the overall brand evaluations. These can be seen in Figure 6.1.

As the literature review has shown, culture moderates each of the mediating mechanisms. This occurs either through differences in the way individuals construe the "self" and the differential orientation toward the *person or situation*, or through differences in the level of *context* in the cultures. These orientations are related, in turn, to the antecedent dimension of individualism-collectivism. Although culture is extremely difficult to define, there appear to be a number of dimensions which make up a culture and which manifest themselves across the cultural spectrum. These offer us the possibility of "decomposing" a fairly complex notion into more manageable dimensions which then become "surrogates" for culture. This approach has been pioneered by Hofstede (1980) and Triandis and associates

(Triandis 1989; Triandis, Bontempo, Villareal, Asai, & Lucca 1988; Triandis, McCusker, & Hui 1990). As Morris (1993, p.8) points out, this method overcomes the traditional "piecemeal quality" of cross-cultural psychology and allows for the generalization of results. According to Gudykunst and Ting-Toomey (1988), the broadest and most widely used dimension is that of individualism-collectivism. Moreover, it has been found to have strong etic endorsement (Gudykunst, 1987; Hofstede, 1980; Hofstede and Bond, 1984; Hui and Triandis, 1986; Ting-Toomey, 1989; Triandis, et al, 1986; Triandis, Bontempo, Villareal, Asai, and Lucca, 1988).

6.2 Statement of Hypotheses

The proposed research will test a number of hypothesized relationships between the independent variables of message sidedness and individualism- collectivism on the one hand, and the following dependent variables:

- o *source/message orientation*
- o *recognition of two-sided feature of message*
- o *degree of internal versus external attributions (correspondence score)*
- o *source honesty*
- o *favorability of cognitive responses expressed as a favorability score.*

- The favorability of the following three levels of cognitive responses:

self-originated CRs (FSSO)¹⁶, self-modified CRs (FSSM)¹⁷, and low-

¹⁶ This level of cognitive responding comprises thoughts which originate in the self.

¹⁷ These are the intermediate CRs, excluding the ones which are targeted toward the self.

level CRs (FSSL)¹⁸. Favorability is defined as the difference between the sum of positively valenced cognitive responses and the sum of negatively valenced cognitive responses. Thus, favorableness captures the attenuation of CAs and enhancement of SAs. A favorability “index” - which corrects for the differences in fluency between the cultures - will also be used as dependent variable (see Shavitt and Brock (1986).

- o *judgment of the brand on the primary attribute*
- o *judgment of the brand on the secondary attribute*
- o *overall brand evaluation*

HYPOTHESIS 1a:

Following exposure to a two-sided message, members of individualist cultures will tend to assign greater causality to internal, dispositional properties of the source and, hence, make more correspondent attributions than would members of collectivist cultures¹⁹. The latter, on the other hand, would have a greater tendency to invoke external, situational factors as explanations for the advertiser's behavior than would the former. (Refer to Figure 6.2).

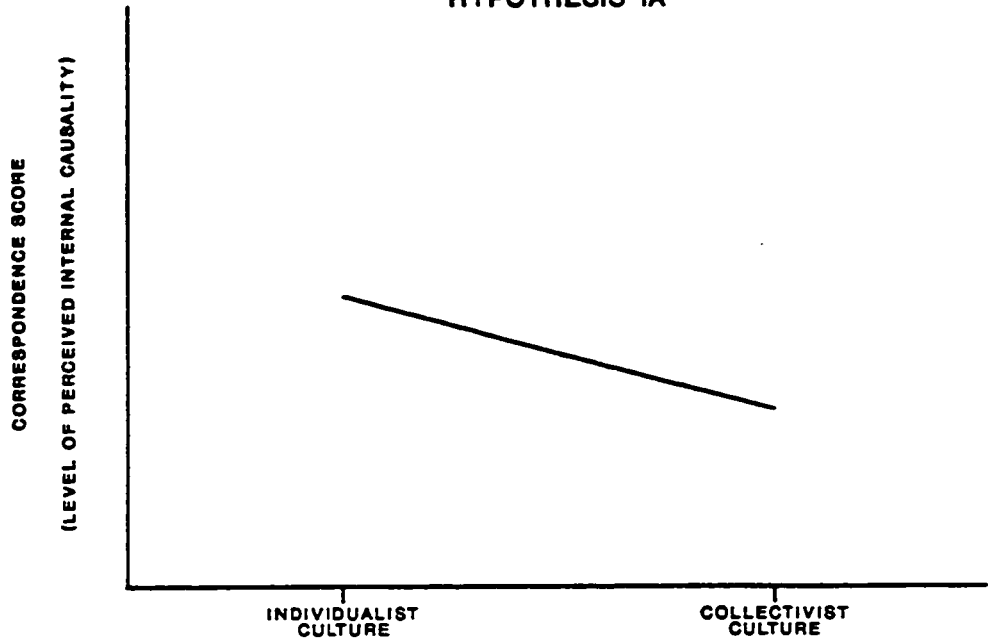
¹⁸ These are the cognitions which represent playbacks of the message or execution.

¹⁹ A main effect is being tested in this hypothesis. No "behavioral event" occurs with a one-sided message since no message disclaimer is given; hence no attributional thinking is instigated.

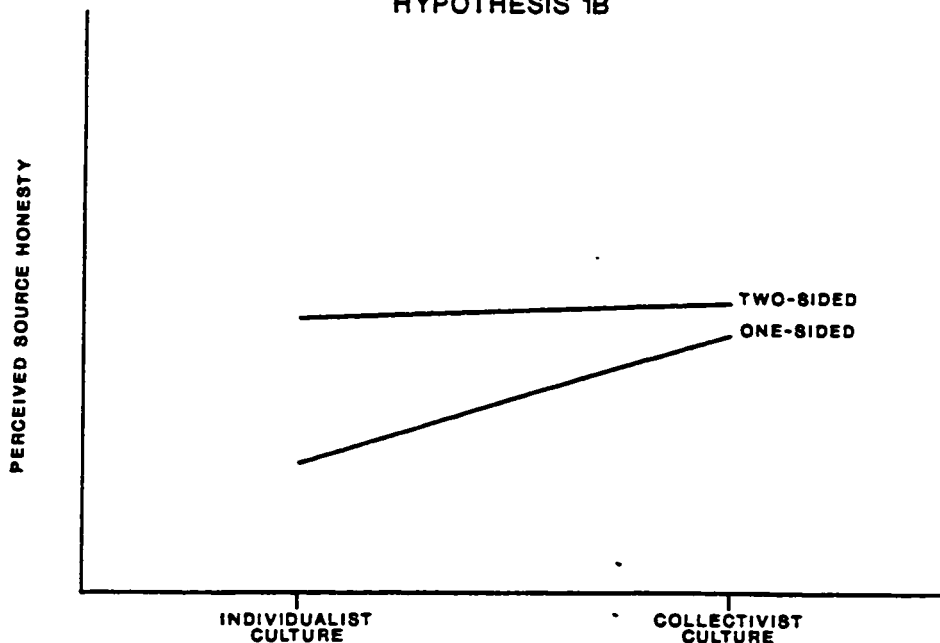
HYPOTHESIS 1b:

Subjects from individualist cultures will perceive a greater positive change in source honesty following reception of a two- versus one-sided message than will members of collectivist cultures. (Refer to Figure 6.3).

**FIGURE 6.2
HYPOTHESIS 1A**



**FIGURE 6.3
HYPOTHESIS 1B**



RATIONALE

Work by Miller (1984), Newman (1993), Morris (1993), and others have provided substantial evidence that culture impacts the attribution process, specifically the formation of dispositional inferences. Members of individualist cultures (e.g., Anglo Canadians), have a social theory more oriented toward the "person," and have a greater propensity to explain an actor's behavior in terms of "internal" or person factors. On the other hand, members of collectivist cultures (e.g., HKC), are more oriented toward the "situation" and relations within their ingroups. Hence, they would be more inclined to assign "situational" causes to an actor's behavior. While individualism/collectivism is a culture-level construct, the analogous construct at the psychological (within-culture) level is idiocentrism/ allocentrism. Newman (1993) has shown this attributional effect for groups varying on this dimension as well.

These tendencies should influence the three person perception phases, namely, identification, characterization, and correction, in the same direction. Thus, a message receiver coming from an individualist culture, such as an Anglo Canadian, should be more inclined to identify behaviors in dispositional terms; should be more inclined to infer a "corresponding" trait to the actor; and, finally, should have a lesser propensity to discount those dispositional attributions to take into account situational forces impinging on the actor. The greater tendency of individualists to infer dispositional causes of behavior would mean that, following reception of a two-sided message, these individuals would assign greater honesty to the source than would members of collectivist cultures.

HYPOTHESIS 2a:

When exposed to an advertisement, members of collectivist cultures will be more *source oriented* than members of individualist cultures who will tend to be *message oriented*. Thus, the former will show lower scores on the Stone and Hoyt (1974) measure of source-message orientation than the latter. (Refer to Figure 6.4).

HYPOTHESIS 2b:

Following exposure to a two-sided message, members of collectivist cultures should not be as able as their individualist counterparts to *recognize the two-sided feature of the message*. (Refer to Figure 6.5).

FIGURE 6.4

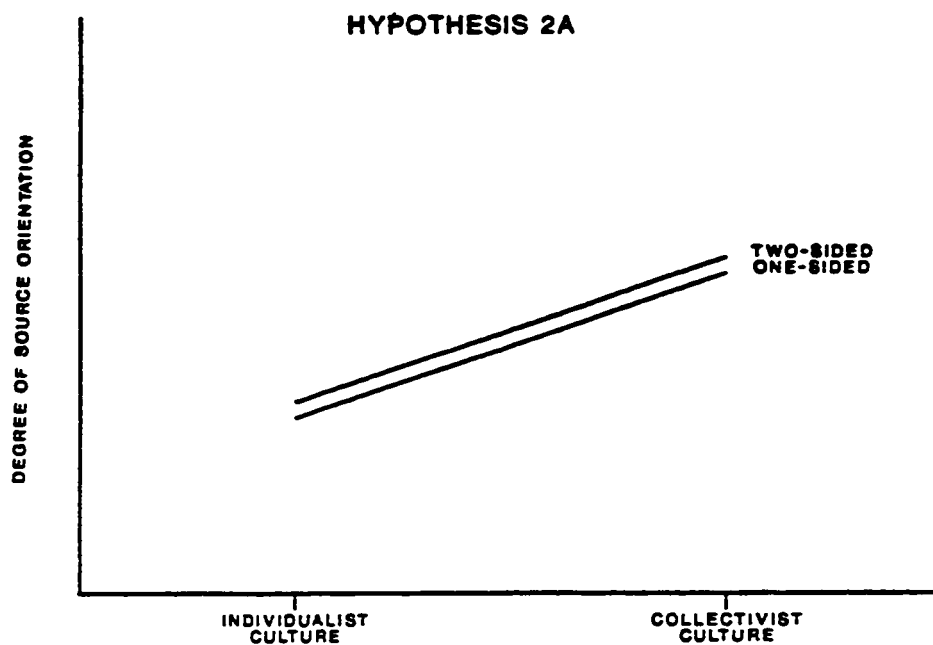
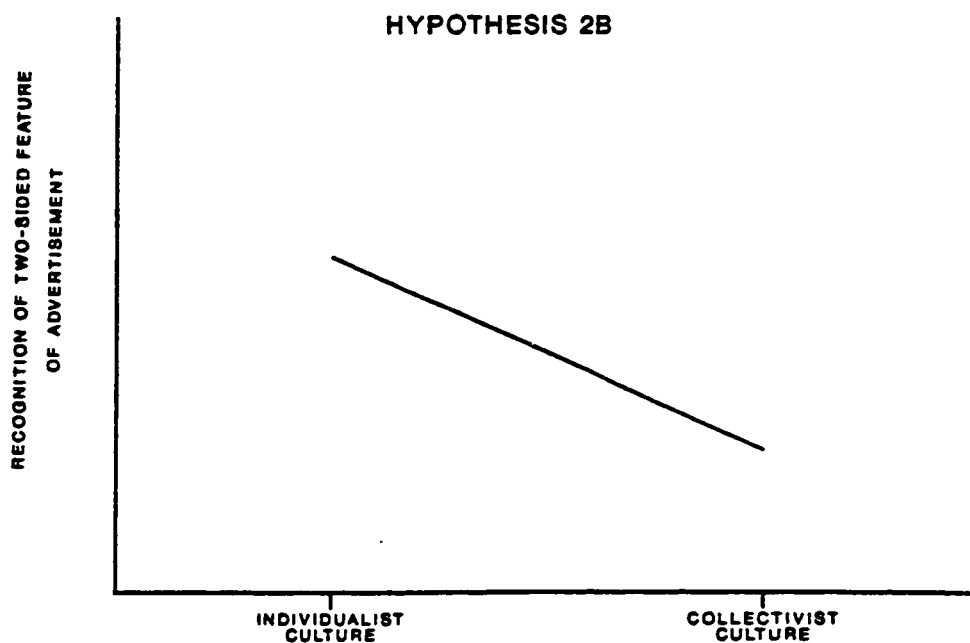


FIGURE 6.5



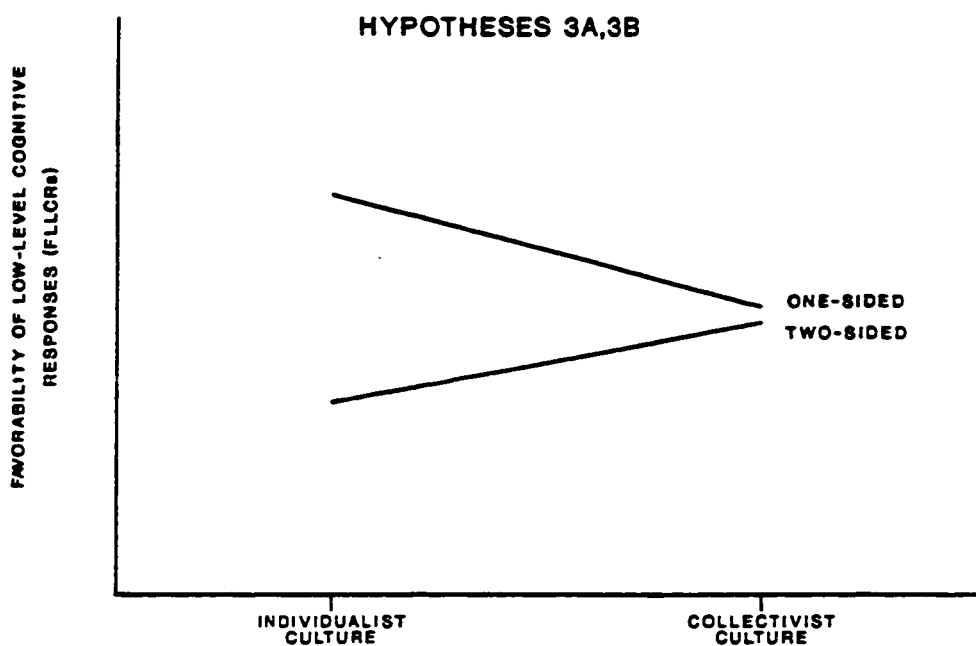
HYPOTHESIS 3a:

When members of collectivist cultures are exposed to either one-sided or two-sided appeals, there should be no significant differences in the *favorability* of the lower-level, the self-modified, or the self-originated cognitive responses. (Refer to Figures 6.6, 6.7, and 6.8)

HYPOTHESIS 3b:

Following exposure to a *two-sided advertisement*, members of individualist cultures will generate *less favorable* lower-level CRs (i.e., message- and execution- originated CRs) than their collectivist counterparts. In contrast, the lower-level CRs of individualists should be more favorable than those of collectivists when exposed to *one-sided messages*. (Refer to Figure. 6.6)

FIGURE 6.6



HYPOTHESIS 3c:

Following exposure to a *two-sided advertisement*, members of individualist cultures will generate more favorable self-modified and self-originated cognitive responses than their collectivist counterparts. In contrast, members of individualist cultures exposed to *one-sided appeals* will generate less favorable self-modified and self-originated cognitive responses than their collectivist counterparts. (Refer to Figures 6.7 and 6.8)

FIGURE 6.7

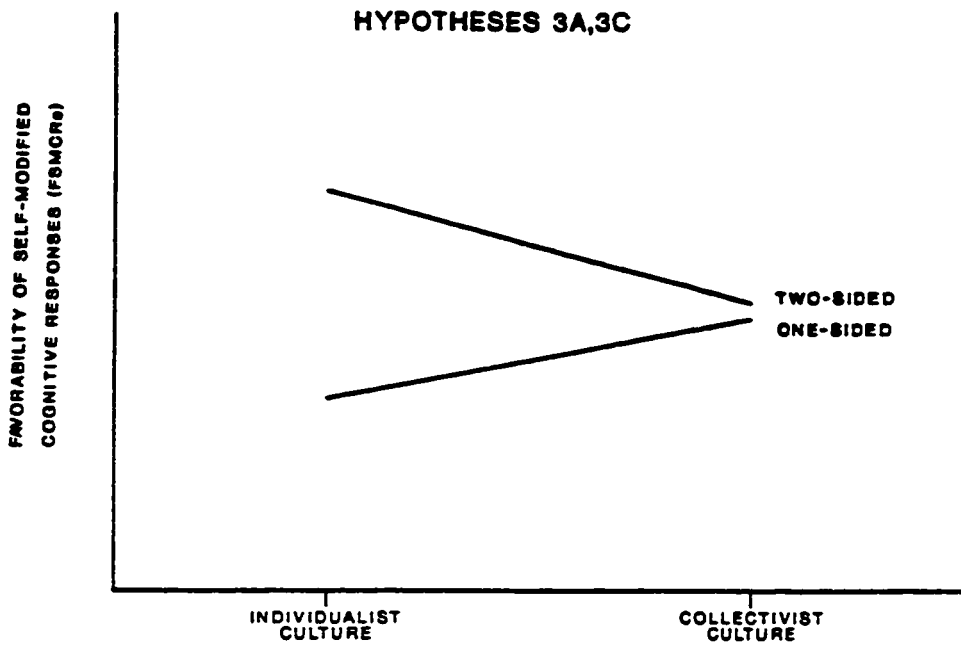
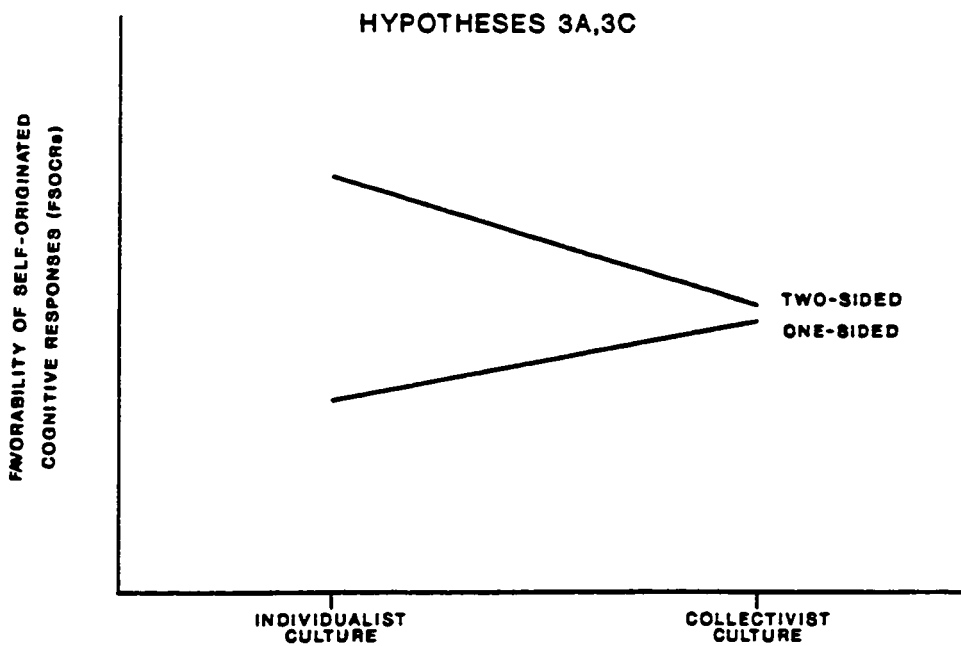
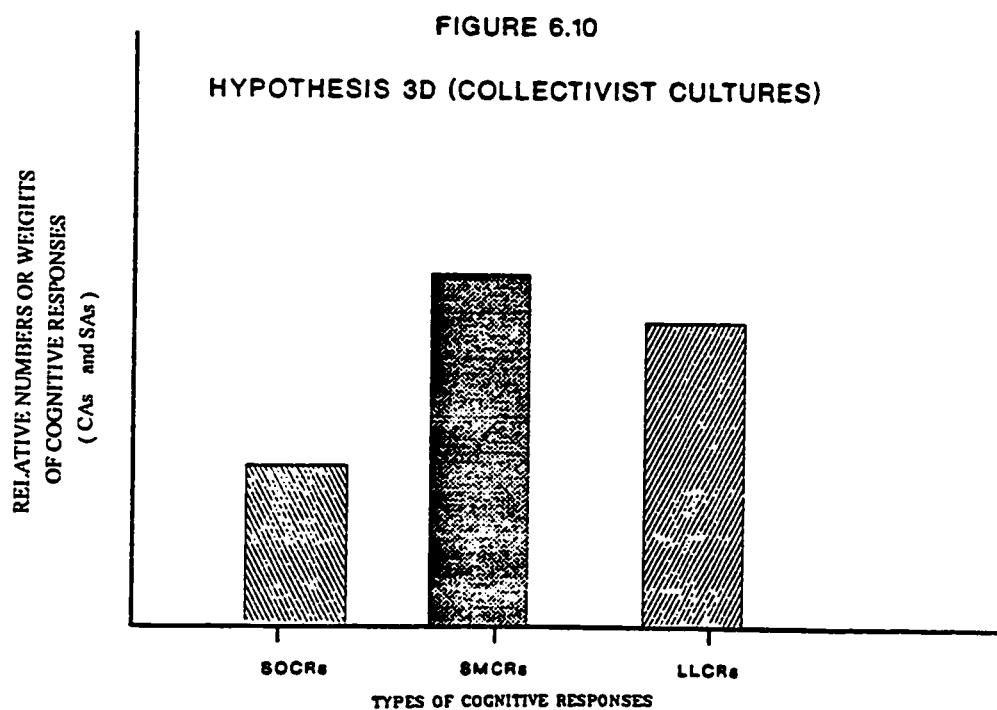
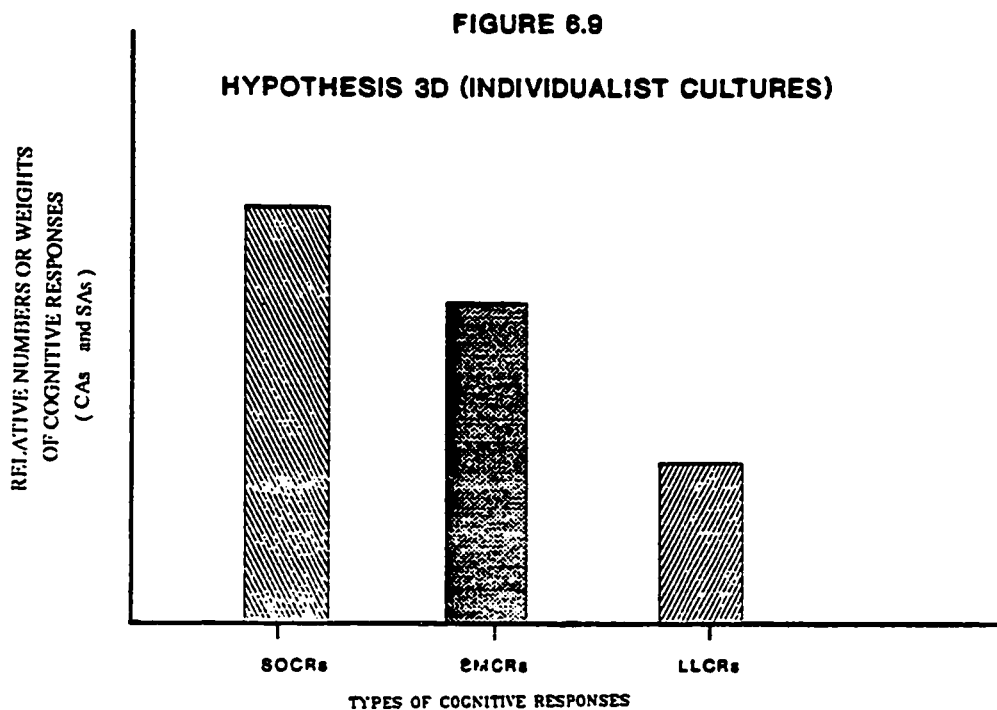


FIGURE 6.8



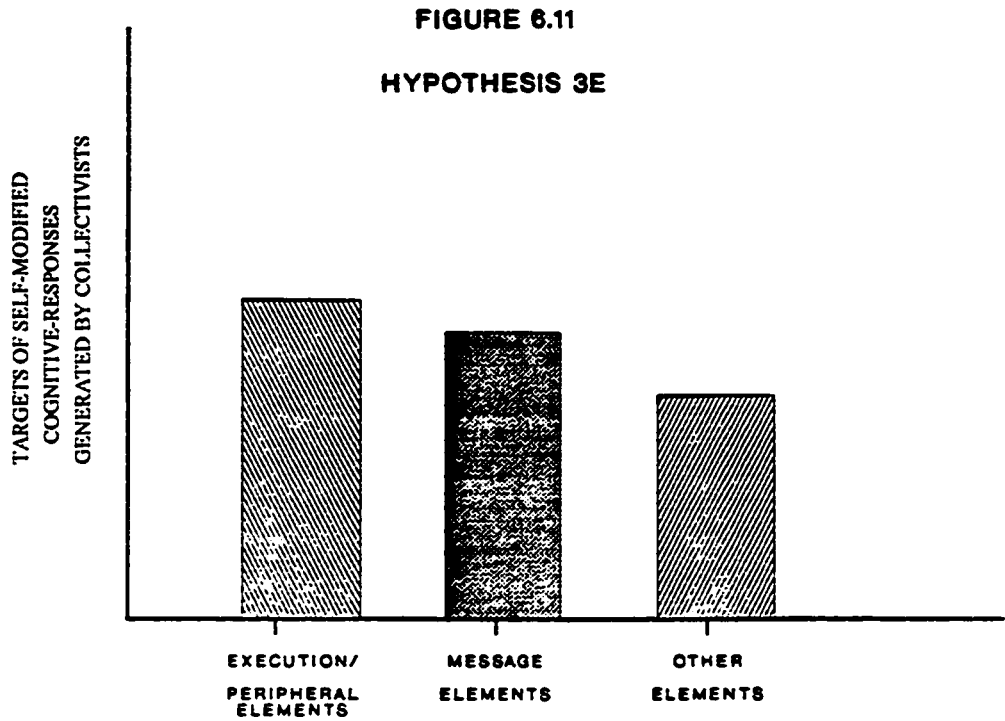
HYPOTHESIS 3d:

In individualist cultures, self-originated cognitive responses (CAs and SAs) will be the most numerous and most heavily weighted cognitions acting as mediators between two-sided appeals and cognitive structure variables. In contrast, for members of collectivist cultures, self-modified cognitive responses will be more numerous and weighted more heavily than either self-originated or low-level (LLCR) cognitive responses (Refer to Figures 6.9 and 6.10).



HYPOTHESIS 3e:

The self-modified cognitive responses generated by collectivists following exposure to two-sided messages, will largely be targeted to the execution or peripheral elements of the ad. That is, these will be more numerous than those targeted to the product or message topic. (Refer to Figure 6.11).



HYPOTHESIS 4:

Members of individualist cultures will be more persuaded by two-sided arguments than will members of collectivist cultures. The former will develop more positive judgments of the brand on the primary attribute(s) as well as a more favorable overall brand evaluation than the latter. (Refer to Figures 6.12 and 6.13).

FIGURE 6.12
HYPOTHESIS 4

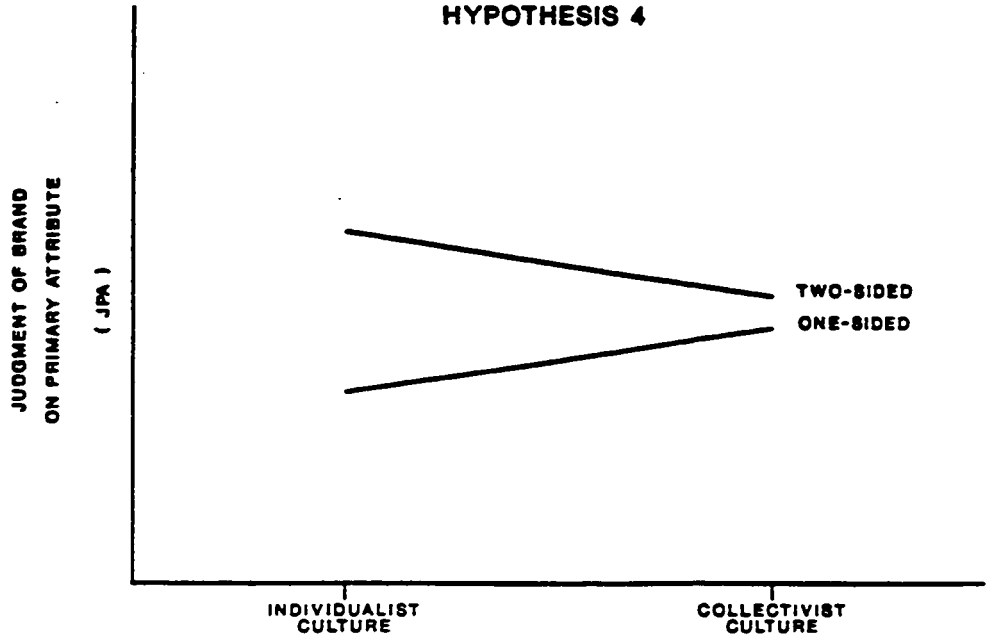
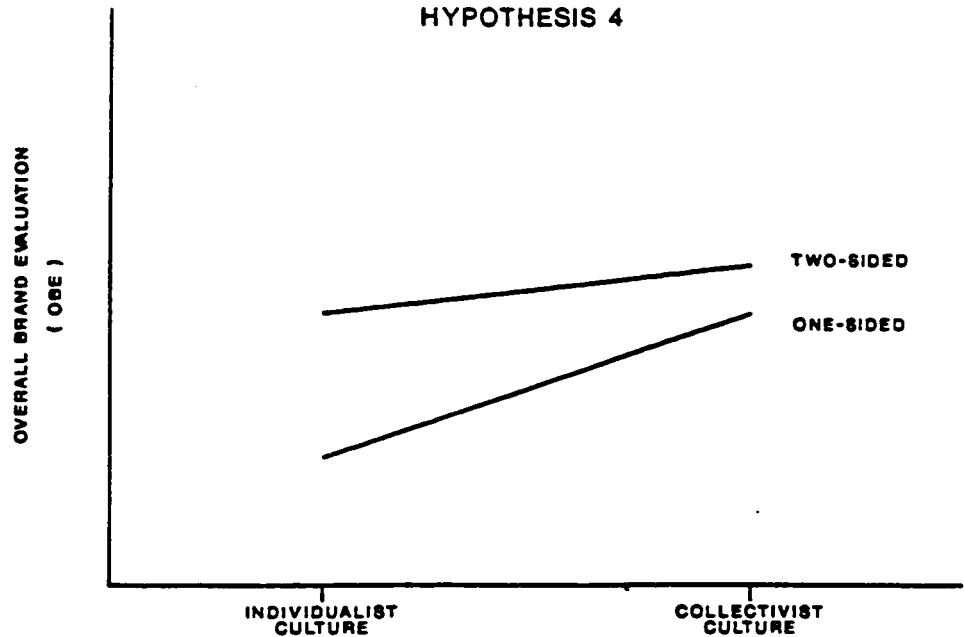


FIGURE 6.13
HYPOTHESIS 4



RATIONALE

As was seen in Chapter 3, Shavitt and Brock (1986) had proposed a typology of cognitive responses in which cognitions were classified on the basis of two dimensions, namely, origin and target. Notwithstanding the fact that ultimately all thoughts are instigated by the commercial (Shavitt and Brock, 1986), a cognitive response could originate either directly in the message (or execution) and manifest itself as a mere *playback* of the information (i.e., the LLCRs); it could originate as a recipient- or self-modified thought (i.e., the SMCRs), such as an inference based on the message arguments; or, at the highest level, it could represent a purely self-originated thought (i.e., the SOCRs). In a similar manner, thoughts could have the self, the product/message, or the execution as target. The two dimensions, along with the various sub-sets of cognitive responses formed from cross-cutting these two dimensions are shown on Figure 3.5. In the present study, the primary focus will be on the dimension of origin. In sum, the three classes of cognitive responses forming the object of the present study are the following (Refer to Figure 3.5):

The SOCRs: These correspond to all the thoughts which are self-originated.

The SMCRs: These are all the recipient-modified thoughts.

The LLCRs: These low-level cognitive responses correspond to the thoughts which are merely playbacks of the message or execution.

In addition to classifying cognitive responses on the basis of origin (and target) it is also possible to classify them on the basis of polarity (i.e., counter- or support-arguments). The possibility of classifying a receiver's cognitive responses simultaneously along these dimensions makes both theoretical and intuitive sense. Take the category of "Counterargument," for example. Wright (1973b, p. 62) has defined this "class" of cognitive responses as:

Statements which are directed against the idea or the use of the products in the advertising communication and which:

- (a) state a specific unfavorable consequence of using the product
- (b) state a specific undesirable attribute of the product
- (c) suggest an alternative method for handling one of the problems cited in the advertising message
- (d) state a specific favorable or desirable consequence or attribute of an alternative product
- (e) challenge the accuracy or validity of a specific argument contained in the advertising message.

These statements may take the form of declarative sentences or rhetorical questions.

From the above definition, it would seem that these thoughts could span the range from message-originated thoughts to receiver-originated thoughts, with intermediate stages represented by receiver-modified thoughts. For instance, an example of a message-originated negative thought would occur when a receiver simply repeated or played back a negative factor that s/he picked up in the advertisement - say the high price of the product. As an example of a receiver-originated negative thought, one can cite a subject's recall of the satisfaction s/he experienced in the past with a *rival brand*.

Further evidence that counter- or support-arguments do not appear to be restricted to cognitive responses *directly* originating in the message comes from Toy's (1982) theorizing. According to Toy, Counterargumentation occurs when belief structures encounter and must deal with discrepant information. Under these conditions, a "cognitive crisis" occurs with the result that cognitive activity is increased. "This cognitive activity tends to defend existing beliefs through retaliatory Counterargument. In contrast, little or no cognitive threat is produced by information that is similar to or only mildly discrepant from present beliefs. In this perspective, Counterargumentation is a defensive mechanism whose purpose is to defend the existing cognitive structure of the message recipient. As such, it could theoretically comprise responses whose *origin* can be traced *directly* to either the message, the subject, or which result from inferences made by the receiver regarding the message. The same argument could be applied to the *target* dimension: Counterarguments could be directed toward the product, the execution (although in this case, they might sometimes take the form of source derogations), and, perhaps to a lesser extent, toward the self.

Although most of the research upon which this typology is based was carried out in the U.S., it should apply in all cultures: all subjects, regardless of ethnic background, should have the ability to generate the various kinds of cognitive responses. For instance, according to Cole and Scribner, 1974, p.193), "There is no evidence...that any cultural groups wholly lacks a basic process such as abstraction, or inferential reasoning, or categorization." Instead, it would appear that cultural differences impact which of the alternative processes come into play in particular circumstances (Gudykunst and Ting-Toomey, 1988). This would also mean

that cultures would differ in the orientations taken by the various subjects to their surrounding cues, and the differential emphases placed on the various classes of cognitive responses.

The form of communication which occurs in collectivist cultures tends to be of the "high-context" variety. In this form of communication, "most of the information is either in the physical context or internalized in the person, while very little is in the coded, explicit, transmitted part of the message" (Hall, 1976, p.79). Stress is placed on interpersonal relationships, past knowledge of the speaker, non-verbal expression, physical setting, and social circumstances. On the other hand, the communication in individualist cultures tends to be of the "low-context" form. Here, "the mass of the information is vested in the explicit code" (p.79); stress is placed on clearly articulated and spoken messages (Miracle, 1989). Okabe (1983) adds that verbal skills are more necessary, and prized more highly in low-context cultures than in high-context cultures. As a result, we would expect the members of collectivist cultures to be more execution/source oriented, but less message oriented than members of individualist cultures. That is, for collectivists, execution or source cues will be more salient than message cues; while the reverse would hold for individualists.

Two-sided messages reveal a potential Counterargument (CA) *within the body of the message itself*. These embedded CAs²⁰ could lead to the following form of cognitive responses on the part of individualist receivers:

- 1- At the lowest level of cognitive responding (the LLCRs), that is, the *simple playback* of ad information, the embedded CAs would result in less favorable

²⁰ In this paper the definition of counterargument or support-argument follows those of Wright (1973b).

message-supplied thoughts²¹ because they are unprocessed by the receiver. The message CAs (or SAs) would simply be repeated by the receiver. Thus, compared to subjects exposed to one-sided messages, those shown a two-sided appeal will tend to generate relatively *more CAs* and *less SAs* (i.e., less favorable LLCRs). (Refer to Figure 6.6)

2- For intermediate and higher level cognitive responses, namely, the self-modified (SMCRs) and self-originated thoughts (SOCRs) respectively, we would expect more favorable cognitive responses (i.e., less CAs and more SAs) for subjects exposed to two-sided messages than for those exposed to one-sided appeals (Refer to Figures 6.7 and 6.8). This is because the cognitive responses generated are based more on *inferences* or other forms of *self elaborations* of the message. At these levels, receivers - especially when highly motivated - actually seek out potential CAs in a message (Petty and Cacioppo, 1981b). In the words of Sorrentino et al. (1988, p. 360):

...it seems reasonable to argue that when people are motivated to systematically process information, they will be looking for counterarguments. Because a one-sided communication does not have counterarguments but a two-sided communication does, systematic processing of information should increase the persuasive impact of a two-sided communication and reduce the persuasive impact of a one-sided communication. After all, the former message would show the reader that the author did consider alternative arguments, whereas the latter would show that the author either did not consider them or in fact withheld them.

²¹ In the form of a greater (lesser) number of CAs (SAs).

In sum, members of individualist cultures (e.g., the U.S.) exposed to two-sided messages should generate *a lower favorability score for the message-originated* cognitive responses, but *a higher score on the self-modified or self-originated* thoughts. The opposite would occur for one-sided messages. There is some empirical support for this. In a study by Cullen (1968) it was found that a "refutational" appeal - a message which explicitly incorporated a potential counterargument (in essence, a two-sided argument) - produced less favorable message-supplied thoughts, but more favorable recipient-modified or recipient-originated cognitions than a message that did not reveal a potential counterargument (i.e., a one-sided message). This study, however, was carried out with U.S. subjects. These subjects, as well as other members of individualist cultures, are more inclined to dwell on the message rather than on peripheral cues such as the context of the communication or the message execution. Moreover, for these individuals, it has been shown that the most important mediators of attitude change are the thoughts which either *originate, or are targeted toward the "self"* - the highest level cognitive responses (see, for e.g., Shavitt and Brock, 1986; Perloff and Brock, 1980; see also below). Hence, the favorable higher-level thoughts (decreased numbers of CAs and increased numbers of SAs) should *outweigh* the less favorable lower-level CAs produced following reception of two-sided messages. Two-sided messages would clearly be more persuasive than one-sided appeals for these individuals.

Members of collectivist cultures do not have the same tendency to focus on message elements; hence, when exposed to the two-sided messages, they would not have the same ability to detect the counterarguments *purposely embedded within them* as their individualist counterparts. This would have the following effect: They would tend to generate *more*

playbacks of execution-based information which comprised little or no purposely embedded CAs. Thus, the lower-level cognitive responses generated by this group following exposure to two-sided appeals would be more favorable (i.e., produce a lesser number of CAs, or a greater number of SAs) than the lower-level cognitions of members of individualist cultures because little or no (unelaborated) CAs would be played back. As for the one-sided message, collectivists would not focus on the positive claims to the same extent as individualists. Hence, we would get the interaction pattern shown in Figure 6.6.

A reversal should occur for the higher levels of cognitive responses. Since these higher level cognitions are either self-modified, or self-originated, and since these would be based more on the *execution or source of the message (and the lesser number of CAs supplied by these²²)* these cognitive responses would tend to be *more neutral or less favorable* as compared to their individualist counterparts (Refer to Figures 6.7 and 6.8). Since this group is less oriented to message-based arguments than individualists, the slight favorableness of lower-level cognitive responses should not outweigh the favorable higher level cognitive responses of individualists. Hence, two-sided messages would not have the same impact in terms of attenuation of counterargumentation for members of these cultures²³; in fact, the

²² That is, since these subjects do not detect the sidedness manipulation as readily as the members of individualist cultures, the inferences drawn from the two-sided message would essentially not differ from those based on one-sided messages.

²³ Evidence in support of this hypothesis also comes from research with the construct of Field-Field-dependence-independence (FDI; Witkin, Dyk, Faterson, Goodenough, and Karp, 1962). This construct is closely related to I-C. In the words of Kim (1994, pp. 6-7), "Field-independence refers to a cognitive style that is analytical and based upon standards internal to the individual. Field-independence refers to one that is global and based upon the external field. Paralleling IC, field-independent individuals tend to be socially independent, autonomous, and distant. Field-dependent individuals are socially interdependent, are more sensitive to social cues, and develop closer interpersonal ties" (See also Witkin and Berry, 1975). The theory on FDI predicts that this construct will have a moderating effect on the various content and structural characteristics of the message. For instance, Keiser (1969) found FIs better able to isolate, analyze, and compare parts of a discourse. Larson (1978) cites a study by Wilner (1969) as evidence that FI receivers are more capable of counter-arguing and more successful inocules. Wilner found that FIs had more complex styles of attitude expression, that they could generate more reasons for a given attitude, and that they were aware of more opposition arguments. This led Larson to predict that two-sided messages would be more appropriate if receivers are relatively field-independent (Toffoli and Laroche, 1994).

favorability score should not differ significantly between one- and two-sided ads (i.e., Hypothesis 3a).

So far we have seen the differential impact of culture on the favorableness of the various types of cognitive responses generated following reception of a message. In the next section we will examine how culture is also thought to impact the relative *importance* placed on the various cognitions. As will be seen, the different weightings further reinforce the previous findings on favorability.

Mediating Role of "Self" versus "Non-Self" Cognitive Responses in Individualist Versus Collectivist Cultures.

As was discussed in Chapter 3, one of the important reasons believed to account for the greater persuasibility of self-relevant cognitive responses is the notion of *uniqueness motivation* derived from *commodity theory* (Perloff and Brock, 1980). On the basis of this theory, individuals value "self" thoughts because they confer *a sense of uniqueness with respect to the other members of society*. However, as will be shown below, this effect may be more applicable in an individualist society than in a collectivist society, where the self is defined in terms of an *interdependence* with other members of the society. For instance, in referring to societies in which the "self" is construed in an independent manner, Markus and Kitayama (1991, p.226) have stated that "The normative imperative...is to become independent from others and to discover and express one's *unique attributes*." In collectivist societies, on the other hand, the "self" is perceived more in terms of "an encompassing social relationship and recognizing that one's behavior is determined...by what the actor perceives

to be the thoughts, feelings, and actions of others in the relationship" (1991, p.227). The findings on the greater persuasibility of self-originated (and targeted) cognitive responses reviewed in Shavitt and Brock (1986), coupled with the greater uniqueness motivation of individualists, leads to the conclusion that *self-originated cognitive responses - in particular, counterarguments (see Wright, 1973) - would carry the greatest weight as mediators between two-sided messages and cognitive structure variables*. This would act to reinforce the effect of the greater favorability of SOCRs which was found for individualist subjects.

In collectivist cultures, on the other hand, *less value* is placed on self-as-origin and self-as-target counter- and support-arguments. Hence, we would expect, first of all, that a relatively *smaller number* of these self-relevant CAs and SAs be generated as compared to members of individualist cultures. Moreover, *less weight* would be placed on those that are generated in the mediation process. Of course, this begs the question: If members of collectivist societies do not generate as many self-as-origin and self-as-target cognitive responses and/or do not ascribe the same weight to them as do members of individualist cultures, perhaps the *fundamental mechanism* accounting for the superior mediating role of cognitive responses may differ from that in individualistic cultures? Whereas *uniqueness motivation theory* and *commodity theory* can explain the general effectiveness of cognitive response mediation in individualist cultures, a different mechanism might be operating in collectivist societies.

The present study also aims at *exploring* some of these differences. It will attempt to demonstrate that, for members of collectivist cultures, *recipient-modified* cognitive responses will be more numerous and weighed more heavily than either *self-as-origin* cognitions or

message-originated cognitive responses. This would thus also serve to reinforce the effects of the differential favorability of cognitive responses described earlier.

The fact that uniqueness motivation is not as great for members of collectivist cultures means that individuals should not be as motivated to generate *self-as-origin* cognitive responses or, for that matter, to attach as much *importance* to them as members of individualist cultures. Even assuming that members of both cultural groups generate the same *number* of these responses, the greater stress placed on in-group interdependence on the part of collectivists means that the *weight* assigned to these cognitions should be less than that attributed by their individualist counterparts. Also, since members of collectivist cultures are more oriented toward the *context* of the communication, these would tend to generate less, and attach less weight to, *message-supplied* (and targeted) cognitions. In sum, it is hypothesized that these subjects will generate more *recipient-modified, execution-as-origin cognitive responses*; specifically, reactions to- or inferences drawn from the execution of the communication. This also means that members of these cultures should give greater weight to attitude toward the ad (Aad) in the mediation of two-sided advertisements.

The disclosure of the secondary (undesirable) attribute often tends to reduce the beneficial effects of enhanced source credibility and attenuation of counterarguments which result from exposure to two-sided messages. That is, the revelation of the negative aspects of the product cancels the positive effects (see Pechmann, 1992). One way to overcome this effect, according to Pechmann is to ensure that the primary and secondary attributes are negatively correlated. Since culture would most likely also exert an effect on this mechanism

as well, hypotheses one and two assume that the negative effects of secondary attribute disclosure and the positive effects due to correlated inferences are held constant across cultures.

CHAPTER 7

RESEARCH METHOD

7.1 Introduction

The main objective of the present thesis is to study the effects of culture on a particular message design strategy, namely, two- versus one-sided appeals. To this end, this chapter aims at developing a research methodology to test the various relationships and interactions suggested by the framework shown in Figure 6.1 and the hypotheses outlined in the previous chapter.

As was seen earlier, the effects of culture on the processing of two-sided ads is thought to be due to differences on the level of I-C between cultures. Consequently, one way of testing the hypotheses is to first select amongst a number of cultures two groups that score on opposite sides of this dimension and, hence, operationalize a collectivist and individualist culture. Then, in a second step, test for the interaction of this factor with the message-sidedness (MS) independent variable. Another approach would be to use the interval-scaled scores of the members of the two cultures and assess the direct relationship between this "continuous" dimension and the dependent variables through, say, hierarchical regression. The present author has selected the first approach in testing the hypotheses.

There are a number of methodological pitfalls in taking this approach, not the least of which is due to the fact that culture, as one author put it, is the "perfectly confounded

variable." This essentially means that, when culture is used as an experimental variable, a number of other factors may cloud the interpretation of the results. The challenge facing the researcher is to simultaneously gather data to help rule out these alternative hypotheses. This, in essence, is the spirit of the "plausible rival hypotheses" method advocated by Brislin et al. (1973, p.30). In their own words: "many stable reference points must be built into a research project so that valid interpretations of the results can be made."

As will be seen in this chapter, the study includes a number of controls and covariates to try to eliminate the principal sources of rival explanations. Care was exercised with respect to sampling, translation, and ensuring that the constructs and measures are equivalent. Unfortunately, it was impossible to cover all the possible rival explanations that could arise in cross-cultural research. If investigators in the area of cross-cultural research had to design experiments to account for every possible factor associated with the concept of culture, little progress would occur in the field.

Among the various topics covered in this chapter are: the selection of the subjects for the experiment; the selection of the experimental stimulus (advertisement); a description of the various research instruments; the experimental design; and the various statistical tools used in the analysis of the data.

As was seen earlier, two cultural groups were selected for this study on the basis of previous research on their orientation on the I/C dimension: Anglo-Canadians and Hong Kong Chinese (HKC).

7.2 Experimental Design and Control Groups

The design used in this study approached the true experiment. Since culture was crossed with another independent variable, and since the former was used to operationalize the construct of I-C, the design was closer to a true experiment than to a quasi-experimental design; although, as Brown and Sechrest (1980) point out, culture by itself is a quasi-experimental variable.

The study consisted of a 2 (individualist vs collectivist culture) \times 2 (one-versus two-sided appeal) after-only factorial experiment, with several offset control groups to control for rival explanations (see Table 7.1). In the factorial experiment, Anglo Canadian, and HKC subjects were each assigned to one of two groups. One group was exposed to a one-sided message, while the other was assigned to a two-sided message. The experimental groups were then exposed to the stimuli and accompanying instruments in their *native language*.

Table 7.1

Design of the Experiment

Group	Culture	Message Sidedness	Language	Context Level
Language Control 1	Collect.	1-Sided	English	With Context
Language Control 2	Collect.	2-Sided	English	With Context
Context Control C-1	Collect.	1-Sided	Native	No Context
Context Control C-2	Collect.	2-Sided	Native	No Context
Context Control I-1	Indiv.	1-Sided	English	No Context
Context Control I-2	Indiv.	2-Sided	English	No Context
Experimental 1	Indiv.	1-Sided	English	With Context
Experimental 2	Indiv.	2-Sided	English	With Context
Experimental 3	Collect.	1-Sided	Native	With Context
Experimental 4	Collect.	2-Sided	Native	With Context

Some subjects were also randomly selected from the same pools of "Anglo Canadian" and "HKC" individuals and assigned to a number of control groups. Only an overview of the controls will be provided here; additional details will be provided in a later section.

Language control groups. Two groups from the HKC culture served as the language controls. These groups were exposed to the same stimuli and questionnaires as were produced for the experimental groups (in Chinese), but translated in English.

"No-context" control groups. As was seen in an earlier chapter, Collectivists and Individualists put different amounts of attention on the various components of a communication. In order to make the advertisements as realistic as possible, and to provide possible attributional foci to high context individuals, contextual elements were incorporated in the experimental ads. The belief is that if there are an insufficient number of cues and attributional foci in the two-sided experimental ad, collectivists might not engage in attributional activity. Under such conditions, two-sided appeals might not differ from their one-sided counterparts. This could provide a rival explanation for what is being conjectured in the present study. Two control groups were thus selected from the collectivist pool: with one being exposed to a one-sided no-context ad; while the other being exposed to a two-sided no-context ad. The no-context ads are the same as the experimental ads in terms of the copy. However, in the case of the former, no illustration is provided showing the setting of the typical purchasing situation. Hence, this version ostensibly has less "context" than the experimental ad. Since there was also the possibility that differences in effectiveness of two-sided over one-sided messages might have been due precisely to the higher

levels of context provided in the ads, two additional individualist control groups were set up: One control group was exposed to a one-sided no-context ad, while the other was exposed to the two-sided, no-context version.

7.3 The Subjects

7.3.1 Selection Criteria

Selection of the subjects was guided by a number of criteria dictated by theoretical, practical, and internal validity considerations:

- 1- The need to have samples which are comparable in terms of education, age, family background, etc. Sample comparability is especially critical in cross-cultural research because noncomparable samples give rise to alternative explanations for any difference in results across cultures (Berrien, 1967; Brislin and Baumgardner, 1971; Douglas and Craig, 1983)
- 2- The need to have a relatively high level of education. As was seen earlier, Alpert and Golden (1982) found that the differential effectiveness of a two-sided message was influenced by level of education (but, see the limitations of the McGinnies, 1966 cross-cultural study).
- 3- Subjects had to be familiar with the product stimulus to be used in the mock advertisement. Moreover, all needed to have about the same moderate to high level of involvement toward the commercial and advocacy issue.

- 4- Subjects had to be easily accessible to ensure the uniformity of administering the experimental treatments. They had to be recent arrivals to Canada - either as landed immigrants or on temporary visas. The Anglo Canadians were either of Anglo-Celt background, or were born in Canada and strongly identified themselves to the Anglo-Canadian subculture. As for the Hong Kong Chinese, 159 subjects were either students studying in Canada or landed immigrants who had been in Canada less than five years, and 39 were Hong Kong subjects studying in a University in Hong Kong.

7.3.2 Number of Subjects

A total of 198 HKC subjects and 175 Anglo-Canadians took part in the experiment.

7.3.3 Sampling and Recruitment Procedures

A judgmental sampling approach was used. This was deemed appropriate for a number of reasons: First of all, previous work with the effectiveness of two-sided messages had shown that such messages are particularly effective with college level individuals; hence, this implied that the subjects be selected from one or more university or college, preferably with a sufficiently large student body to allow for voluntary participation in the experiment. a second reason is that, in contrast to North American research projects where probabilistic sampling is generally considered to be the most desirable, there are severe impediments to using such an approach in most international studies. As Douglas and Craig (1983. p. 212 point out:

Lack of published information about the relevant target population, the paucity of sampling lists, and the costs associated with the development of such lists suggest that other methods such as judgment, convenience, or snowball sampling may be more cost effective.

A third reason is the fact that even truly probabilistic samples do not guarantee comparability between cultures. a number of factors could still provide a plausible rival explanation (Brislin et al., 1973) for the research findings. For instance, significant differences in education or socio-economic status of the random samples could explain the findings. There may also be a differential refusal rate which could affect interpretation.

Thus, in the present research, the "plausible rival hypothesis" approach was used to guide sample selection. This meant paying close attention to the following (see Brislin et al., 1973):

- 1- Selecting the groups from functionally equivalent organizations. This in essence meant that the subjects had to be selected from the same "occupational group" - In our case colleges and universities in Montreal, Toronto, and Hong Kong.
- 2- Selecting key groups as given by the previous literature;
- 3- Proper definition and description of the samples. This also means carrying out statistical comparisons between the samples to test for differences on characteristics such as age, sex, school class, living status, and family income status. These steps were meant to ensure sample comparability. Also, in order to ensure better representativeness of the population as a whole, fairly large and regional universities were chosen to conduct the experiments.

7.4 The Research Setting

This section will describe the general setting in which the research took place. It will also describe the advertising stimuli which were used to expose subjects to different levels of the message-sidedness independent variable.

7.4.1. Advertising Research Versus Experimentation in Social Psychology

Although two-sided ads have been used with different media, nearly all advertising research with this strategy has been done with print ads (see, for e.g., Kamins and Assael, 1987; Pechmann, 1992; Smith and Hunt, 1978). For this reason, the present experiment will involve subjects being exposed to a typical print advertisement for a new brand introduction. The distinguishing feature is a *product advertisement*. This contrasts with the typical *social psychological* experiment where various political, social, or other controversial issues are used as the basis for the message.

7.4.2 Selection of the Product and Advertisement

In view of the theoretical framework previously developed, the product advertisement had to meet a certain number of criteria in order to be effective:

- 1- It had to generate a moderate to high level of involvement;
- 2- It had to have "equivalents" across cultures in terms of meaning, use, and involvement (i.e., functional equivalence);
- 3- It has to be gender neutral;

- 4- The majority of the audience initially had to have an unfavorable attitude toward the advocacy issue (at the very least, about half of the population should be favorable to the advocacy, while the other half should be unfavorable);
- 5- It had to include negatively correlated primary and secondary attributes; and
- 6- The latitudes of acceptance of the subjects could not have been too narrow to preclude them from modifying their initial attitudes following presentation of the message.

Inoculation theory (McGuire, 1961) suggests that two-sided messages are more effective than their one-sided counterparts when the initial attitudes of audiences vis-a-vis an advocacy issue are negative. Under these conditions, message receivers will predominantly counterargue with the message. Past marketing research has also pointed to similar conditions for the effectiveness of two-sided messages: significant effects of message sidedness on cognitive responding will occur "when counterargumentation is the dominant mode of message processing" (Hastak and Park, 1990).

Another constraint is that the product should not interact with the culture. That is, it should not require any cultural interpretation, or it should not be imbued with differential cultural meanings. This could, for instance, affect the audience's level of involvement. As an example, sports sandals are seen as a stylish and involving product in North America; however, in India and China, sandals are so common that they would tend to be seen as commodities. A number of products would appear to transcend cultural differences, for example: "high-tech" products such as Walkmans, portable stereo systems, computers, etc.; over-the-counter (OTC) pharmaceuticals

products (e.g., pain relievers, vitamins, acne-preparations, etc.; as well as certain natural medicines or products such as tonics, herb-based medicines, etc. It would also have been possible to utilize a service as the focus of the stimulus ad. Some services²⁴ which were considered as potential for this study on the basis of their "controversial" nature (and the possibility that they could generate higher levels of counterargumentation) were dating services, courses on the martial arts, etc. In order to arrive at the choice of product and advertisement, two focus groups were set-up to evaluate the proposed products/advertisements. Among the products considered were: condoms, slimming products, dating services, a new type of pen.

Following analysis of the focus groups sessions, it was concluded that pens generated the least amount of cultural interactions; had a moderate to high level of involvement with the target subject (students); and, lastly, had already been validated in previous studies on two-sided advertisements (e.g. Kamins and Assael, 1987; Hastak and Park, 1990).

The theoretical framework and hypotheses presented earlier also indicate that members of collectivist and individualist cultures put different amounts of attention (stress) on the components of a communication. In high-context cultures a good deal of the meaning in a communication comes from the contextual cues, for example, the setting, the characteristics of the speaker, etc. As a result of this differential orientation, and the desire to make the advertisements as realistic as possible, two contextual elements were incorporated into the commercials: information on the *status* of the advertiser or message source, and a photograph or illustration depicting the *communication setting*. "No-context" ads were also developed and exposed to individualist and collectivist control groups in order to assess the role of the context elements in the processing of

²⁴Services would appear to be imbued with higher levels of cultural meaning than products.

the ads. The mock advertisement consisted of a one-page, black and white print advertisement on glossy paper prepared by a professional in the advertising field. It followed the style used by Smith and Hunt (1978) and Etgar and Goodwin (1982). The layout of the advertisement was as follows: At the top of the page the firm identified itself as the leading manufacturer of writing instruments and then announced the introduction of a new brand of the pen. This was then followed with an illustration of the product itself and a photograph of a typical communication setting. Some information about the status of the advertiser was also provided in this section of the ad.

Following this, the various attributes were listed below the illustration. In the nonvaried product claim treatment message, only the positive attributes of the product were given. In the two-sided version, or varied product claim treatment, the positive attributes (including the primary attribute) were provided along with the negative (secondary) attribute. The text was kept purposely simple. It should be pointed out that several positive attributes were presented. Of these, one stood out as the primary attribute - the writing performance. The final versions of the ads are shown in Appendix C.

The Anglo Canadian and HKC samples were then exposed to the experimental manipulations and instruments in their native tongues. a "back-translation" technique (see Brislin, 1980) was used to translate the English advertisements and instruments into the non-English cultures. As was mentioned earlier, two randomly chosen control groups from the HKC pool were also exposed to the English version of the stimuli and questionnaires in order to assess the possible effects of language on cognitive processes. Care was also taken to ensure that all execution elements - illustrations, photos, etc., would be functionally equivalent in the individualist and collectivist cultures.

7.5 The Independent Variables

7.5.1 Message Sidedness

As was discussed in chapter two, message sidedness has been operationalized in different ways by researchers (see also O'Keefe 1990). In all cases, "two-sided" messages include both supporting arguments and opposing arguments. But researchers tend to differ as to how they treat the opposing arguments. For instance, in some studies the opposing arguments (or negative attributes) are simply mentioned, with no attempt being made to overturn them. In some studies, the opposing arguments are mentioned in a way that the audience will perceive them to be outweighed by the positive arguments or attributes. In the third approach, the negative arguments are refuted or attacked directly. This last type of two-sided message is also known as a refutational two-sided appeal. Most of the studies on the effects of message sidedness in advertising have used the first type of operationalization. Some studies have only used the refutational type of message (e.g., Etgar and Goodwin, 1982; Sawyer, 1973); while Kamins and Assael (1987) tested both the "mention only" and refutational types in the same study. There are three reasons why the present study also uses the "mention only" type of operationalization: First of all, the introduction of a negatively correlated attribute plays a role similar to refutation by using the negative relationship between the primary and secondary attribute to reinforce the former; secondly, since this is a cross-cultural study, refuting the negative attribute can increase the level of ambiguity in the message and possibly introduce an additional confounding effect. Lastly, as O'Keefe (1990) has pointed out, unlike the situation in communications research, studies in consumer advertising research have shown that the first type of operationalization (i.e., mention only)

still results in superior persuasibility than one-sided messages (see, for e.g., Alpert and Golden, 1982, cited in O'Keefe, 1990).

The brand name selected for the pen was *Tekscrib*, to reflect the "high-tech" nature of the new writing instrument. Similar to Pechman's study, the two-sided message claimed superiority for the advertised brand on writing performance, but disclaimed superiority on one attribute of moderate importance, namely, the price of the refills cartridges (the secondary attribute). The latter attribute was selected based on the need to have the primary and secondary attributes negatively correlated. Pre-tests indicated that higher cost refills was negatively correlated with writing performance.

7.5.2 Individualism/Collectivism

Since Individualism-Collectivism is the second independent variable in this study, it was essential to have a reliable and valid measure of the construct to assess *between-culture* variation. As was pointed out earlier, however, the construct is believed to have a counterpart at the individual or psychological level. Thus, it is also possible to measure the within-culture variation of this variable. Since the terminology used for between-culture differs from that used to measure within-culture variations, a brief clarification of these different measures is in order.

As was seen earlier the within-culture variation of I-C is referred to as allocentrism-idiocentrism. Conceptually, the constructs appear to be the same. In fact, as Triandis (personal communication, August, 1994) notes:

The distinction between allocentrism and collectivism is not needed when one is working with one or two cultures. So far we have not found any evidence that it is

worth making. In fact, Shalom Schwartz, working with values, found correlations in the .8+ area between structures obtained at the individual and at the cultural levels. Nevertheless, it is important to keep the two levels distinct *in case* the data show different patterns.

However, as Triandis et al. (1993) found, the within-culture variations of I-C are captured by a somewhat different set of factors than the between-culture variations. In essence, this means that the I-C construct is operationalized differently at the cultural and individual levels.

The primary interest in this study is the between-culture measure. To-date, one of the most reliable and valid means of assessing this construct is using the multimethod approach validated by Kwan-Shing Chan (1994). These measures, in fact, formed the basis of a composite score referred to by Chan as the COLINDEX. In the present study, however, the aim was not to develop a composite score for each subject, but rather to test whether or not the cultures used in the study operationalized the values dimension that they were meant to. This approach has the important characteristic that it is based on a multimethod technique. As the work of Campbell and Fiske (1959) and Brinberg and McGrath (1985) have shown, only a multimethod approach can help ensure construct validity, reduction of uncertainty associated with research findings, and replicability. These methods are: The *social content of the self* approach developed by Kuhn and McPartland (1954); the *attitude* approach based on Triandis's attitude items (see Triandis et al., 1986, 1988); and, finally, the *value items* developed by Schwartz (see Schwartz and Bilsky, 1987, 1990).

Another important feature of COLINDEX is that it provides a *summary-type score* for testing theoretical predictions. It permits, among other things, more refined and powerful comparisons at both the cultural and individual levels (Kwan-Shing Chan, 1994).

What is of greatest concern to us at the moment are the psychometric qualities of the three separate measure, and the final composite index.

Reliabilities of the various sub-measures.

- 1- The Social Content of the Self Scale (%S): Interrater correlation for the %S score was found to be .95 for the American sample, and .96 for the Hong Kong sample.

- 2- The Attitude Items Measure: The Cronbach's alpha for the collectivist index (COLLAT) was found to be .46 for the American sample, and .41 for the Hong Kong sample. The alphas for the individualist index (INDAT) were .51 and .53, for the two samples, respectively. As the author points out, this particular sub-measure "suggests that these indices may be only moderately sensitive in measuring the construct" (1994. p. 203).

- 3- The Value Items Measure: Cronbach's alpha on the collectivist index (COLLVA) was .84 for the American sample, and .78 for the Hong Kong sample. The alphas for the individualist index (INDVA) were .74 and .73 for the two sample, respectively.

The author also assessed the convergent validity of the three methods. The five indices (%S, COLLAT, INDAT, COLLVA, AND INDVA) were correlated with each other, the correlation matrix provided by the author indicates that these three methods converge and are

complementary to one another. This fact, coupled with the *overall* reliabilities of the sub-measures means that the three methods as a whole are satisfactory measures of collectivism and individualism. Another important finding ensued from the study: the correlation found provides evidence for the construct being unidimensional, contrary to what other researchers had posited. Essentially what this means is that collectivism is the polar opposite of individualism, and only one measure is necessary to assess the construct.

7.5.3 Potential Confounds, and Controls to Eliminate their Effects

Many of the possible confounds and controls to eliminate their effects have already been introduced in the experimental design section of the chapter. In this section a greater theoretical base is provided for these and other possible sources of error.

7.5.3.1 Effect of Language and Linguistic Relativity.

The fact that thinking and language are intimately related, has prompted a number of researchers to conjecture that people who speak different languages will also think differently (Berry et al., 1992). The principle of linguistic relativity basically embodies this notion: "that there are relationships between characteristics of a language and the thoughts that occur in the culture in which that language is spoken" (Berry et al., 1992, p.101). This principle is better known as the Sapir-Whorf hypothesis. According to Whorf (1956, p.212, cited in Berry et al., 1992):

...the background linguistic system (in other words, the grammar) of each language is not merely a reproducing instrument for voicing ideas but rather a shaper of ideas, the program and guide for the individual's mental activity, for his analysis of impressions, for his synthesis of his mental stock-of-trade.

Language is, thus, not simply a vehicle for reporting experience, but it also serves as a method of defining experience for its speakers (Hojjer, 1954). According to this view, language influences the thought patterns of the members of a culture. The hypothesis has not fared very well, however, in empirical tests. For instance, Berry et al., (1992, p.105) point out that:

In general, we can conclude that there is at best limited support for the linguistic relativity hypothesis at the lexical level, but the last word has not been spoken on this issue. Hunt and Banerjee (1988) have pointed out that contemporary models of memory and thought presume that language provides concepts used in thinking. At the grammatical level there is only limited evidence, but this has been so negative, at least until now, that the hypothesis that the structure of a language has a broad effect on thinking can be shelved.

There is thus the possibility that the thought patterns of different cultures are not due to differences in individualism-collectivism but, rather, to differences in the languages spoken. The thought patterns of the selected cultural groups could be due to differences in the languages spoken, rather than to fundamental differences in attributional processes. The present study attempted to gauge the possible effect of this confound by administering the advertising stimuli and measuring instruments to the HKC group in both its native language and in English (to bilingual subjects, of course).

7.5.3.2 The Effects of the Context of the Message

As was seen earlier, Collectivists and Individualists put different amounts of attention on the various components of a communication. In the case of the former, much of the communication is "inferred by the listener on the basis of past knowledge of the speaker, the setting of the particular conversation, and any other contextual cues available." Thus, in order to make the advertisements as realistic as possible, and to provide possible *attributional foci* to high context individuals, two contextual elements were incorporated in the experimental ads:

a - the *status* of the advertiser or source;

b - a photograph or illustration depicting *the communication setting*.

If the event that there would have been an insufficient number of cues and attributional foci in the two-sided experimental ad, collectivists might not be engaged in attributional activity. Under such conditions, two-sided appeals might not differ from their one-sided counterparts. The principal reason advanced for the lack of differential effectiveness between two-sided ads and their one-sided counterparts in collectivist cultures lies in the nature of the causal attributions thought to occur in the former: individuals are believed to ascribe the behavior (the revelation of negative information in the product) to *external factors*, rather than to *dispositional* ones in individualist cultures. A lack of context in the two-sided ad could serve as an alternate explanation for the hypothesized effect among collectivist message receivers. It is thus essential to include adequate controls to eliminate this possible confound.

One way to do this is to select two control groups from the collectivist pool of subjects and expose one to a one-sided no-context ad, (in fact, a reduced context ad) and the other to the two-sided no-context ad. The subjects exposed to the no-context ads, in addition to showing no difference between the one-sided and two-sided versions, would also show a significantly lower degree of JPA and OBE than the experimental ads. Moreover, when the subjects exposed to the experimental two-sided ad (with context) are compared to their “reduced-context” counterparts in terms of number of external attributions made, the latter would show a significantly lower level than the former. This would serve to rule out the lack of context as a competing explanation for the differential effects of message sidedness in the case of collectivists.

There is also, of course, the possibility that differences in effectiveness of two-sided over one-sided messages in the case of individualist subjects may be due precisely to the higher levels of context provided in the ads. To eliminate this possibility individualist control groups were also exposed to one- and two-sided no-context (i.e., reduced-context) appeals. The differential effect of two-sided over one-sided appeals should be the same for the experimental groups as for the no-context groups. In other words, no significant main effect due to context or significant interaction effect between level of context and message sidedness should appear.

7.5.3.3 Source/Message Orientation

As discussed in chapter five, Tamilia's (1977) literature review and own experimental findings have shown that different cultures react in different ways to source cues; in

particular, they may show differences in source versus message focus. Although this is an important variable in the present study as well, it was also necessary to place constraints on this variable to avoid other possible confounds. For instance, if the advertising message presents a photograph of the advertiser, it is possible that a greater level of source identification for some cultures will raise the level of attitude toward the ad, and, in turn, influence the attitude toward the brand. This effect could "wash out" dispositional attribution processes. A number of steps were taken to minimize extraneous effects due to the source.

The first control occurred by virtue of the fact that the experimental design evaluated the impact of culture on the *differential effect* of two- versus one-sided messages. In other words, in each culture one group was exposed to the one-sided message, while the other group is exposed to two-sided appeals. In all other respects, the ads are the same. Another way to get around this problem was to minimize the number of source cues in the ad. Care had to be taken, however, to leave a sufficient number of contextual cues to provide realism to both individualist and collectivist cultures.

The ad selected as the stimulus attempts to achieve this by providing the message in printed form, by keeping the execution as simple as possible, and by avoiding the use of identifying photographs of particular individuals. Thus, the image of the source conjured up by the members of the various cultures will depend almost entirely upon the internal "cues" or schemas generated by the message receivers. In essence, this is related to the notion of "intrinsic ethos" (see Anderson and Clevenger, 1963). Moreover, as Tamilia (1977, p.48) points out, when minimal information is provided about the source "...the person perception paradigm becomes a projective technique where the person is exclusively reacting to his own

set of cognitive cues, his own pre-conceived image of the source." Source/message orientation is also treated as a dependent variable in this study and will be measured.

7.5.4 Manipulation Checks

A series of manipulation checks were carried out in order to determine whether the independent variable of message-sidedness, and the control-group manipulations have had their intended effects (or have taken). These are described in Chapter 8.

7.6 The Covariates

7.6.1 Self-Esteem

The work reviewed earlier on the effects of SE on information processing demonstrates that this variable influences the propensity to counterargue and, hence, the persuasibility of receivers (see Romer, 1981; and Skulnick and Heslin, 1971 for a discussion). It also influences the search for information in decision-making (Schaninger and Scilimpaglia, 1981) and degree of effort expended in attributional thinking. Thus, in order to increase the sensitivity of the present experiment, it is essential to be able to control for this potential source of variability. The scale to be used to measure this construct consisted of the five statements reflecting positive self-esteem used in the Rosenberg self-esteem scale. This had already been validated for use with Chinese subjects (see, for e.g., Wan-Ping Pak, Dion, and Dion, 1985)

7.6.2 Control/Subjugation

The best surrogate measure of this construct at the individual level is the Locus of Control (Rotter, 1966). The three dimensional Levenson (1973) scale was used to measure this covariate. Levenson's instrument consisted of three sets of scales measuring the "Internal," "Powerful Others," and "Chance," dimensions of locus of control. The scales used in the present study consisted of an abridged scale which had previously been used by other researchers with satisfactory results.

7.6.3 Uncertainty-Avoidance

One of Hofstede's (1984) dimensions of cultural variability is uncertainty-avoidance. Individuals in cultures which have a high rating on this dimension have an aversion to uncertainty and ambiguity (see also Shaw, 1990). Since two-sided messages tend to be more ambiguous than one-sided appeals, one could conjecture that these individuals would tend to favor one-sided messages. However, as Shaw (1990, p. 641) points out, these people also "require a very careful analysis of all information, so that uncertainty is reduced to a minimum, before being willing to categorize the behavior of others." These effects would seem to operate in different directions, with the former tending to favor one-sided messages; while the latter would tend to favor two-sided messages. Thus, uncertainty-reduction may also correlate with the dependent variables and could explain some of the findings. This construct was measured by appropriate items of the Value Survey Module (VSM) developed by Hofstede (1980).

7.6.4 Level of Education

As was discussed earlier, work by Hovland et al. (1949) and Alpert and Golden (1982) have shown that educational level interacts with message sidedness. Individuals with a college education or better are more receptive to two-sided appeals than are subjects with lower levels of education. This covariate was measured by the number of years of schooling that subjects had completed (i.e., their level of scolarity).

7.6.5 Need for Cognition

This covariate was measured using the 18- item Need for Cognition Scale developed by Cacioppo, Petty, and Kao (1984).

7.6.6 Perception of Forcefulness in the Ad (Degree of Hard- Versus Soft-Sell, or Source Pressuring)

According to Hepworth (1978), one-sided messages tend to be perceived more as a form of hard-sell advertising than two-sided ads, which are perceived as a form of soft-sell. It is also known that Eastern cultures are more inclined to use the soft-sell rather than the hard-sell approach in advertising (see, for e.g., Mueller, 1987). As a result, when subjects from eastern cultures are exposed to two-sided messages, the "soft-sell" nature of these ads may generate higher levels of attitude-toward-the ad than would be the case for western subjects. This effect, in turn, could compensate for the low level of dispositional attributions conjectured to occur among Eastern subjects, and result in their being more persuaded by two-sided than one-sided messages. In order to assess the possible effects of this confound, the subjects' perception of the forcefulness of the ad (source pressuring) was also measured.

7.7 The Dependent Variables

All the following measures were administered to the subjects in their native language. Back-translation (as described by Brislin, 1980) was used to prepare the non-English versions. Care was also taken, as Brislin indicates, to use short sentences, repeating nouns instead of using pronouns, and focusing on specific instead of general terms. Variables that were measured with multiple items were operationalized as the average of those items. The reliabilities of all the multi-item scales were also assessed using the Cronbach alpha coefficient. These are reported in Chapter 8.

7.7.1 Source and Message Sensitivity Measures

Source/Message orientation. The scale used is that developed by Stone and Hoyt (1974, p.92). The original scale consists of ten items measured by seven-point bipolar scales in which subjects indicate how they would distribute their concern between the source and the message in communications across a variety of topics. The original list of topics comprised: politics, civil rights, medical research, health practices, religion, international relations, space programs, communist subversion, mental health, and jazz. However, since some of the topics either did not apply to a Canadian context, or were no longer major issues (e.g., communist subversion), it was decided to replace some of the topics with ones that are more relevant for the two cultures, and to add two additional items - while keeping in mind the necessity to have good discriminating power and not generate gender differences. The Hoyt (1941) reliability coefficient for internal consistency for their *original* scale was found to be .68 for the ten selected topics. Scores of the ten items were summed to provide source-

message orientation scores, with higher scores indicating greater message orientation. The scale used in the present study, along with instructions to the subjects appear below.

We'd like to know something about your information-processing habits. Imagine that someone takes a position on each of the following topics. You **DO NOT KNOW** what will be said or who will say it. For each topic, how much does it matter to you (1) *who* says it, as compared to (2) *what* is said? Circle a number on the scales shown below to indicate the relative emphasis that you would place on these two factors as you reflect on the topic.

<u>Topic areas</u>	Who says it matters most to me					What is said matters most to me	
Politics	1	2	3	4	5	6	7
Civil rights	1	2	3	4	5	6	7
Medical research	1	2	3	4	5	6	7
Contagious diseases (e.g., Aids)	1	2	3	4	5	6	7
Religion	1	2	3	4	5	6	7
International relations	1	2	3	4	5	6	7
Space programs	1	2	3	4	5	6	7
Mental health	1	2	3	4	5	6	7
Jazz	1	2	3	4	5	6	7
Subversion from far right political groups	1	2	3	4	5	6	7
Environmental issues	1	2	3	4	5	6	7
Job opportunities	1	2	3	4	5	6	7

Factor analyses were carried out and a comparison was made of the factor structure and loadings between the Anglo and HKC subjects. Those items which loaded on the same factors were retained. Six items resulted and were based on the following topics: Politics, Civil Rights, Medical Research, Contagious diseases (e.g., Aids), International Relations, and

Mental Health. Thus, in the final analysis, only one item differed from the *original* scale. This was item four, which originally was based on the topic Health Practices, but which was changed to Contagious Diseases (e.g., Aids) to make it more relevant. The Reliability of this new scale will be found in Chapter 8.

Recognition of two-sided feature of message. This was assessed by examining the Ss' beliefs and judgments on the secondary attribute.

(Q. 2) In your belief, how likely is it that Tekscrib has the following characteristics?

	Very Likely							Very Unlikely
Tekscrib has low cost refill cartridges.	1	2	3	4	5	6	7	

Judgment of secondary attribute. Three scales are used.

(Q.20) How would you judge Tekscrib on *the price of the refill cartridges?*

Very expensive	1	2	3	4	5	6	7	Very inexpensive
High priced	1	2	3	4	5	6	7	Low priced
Not at all affordable	1	2	3	4	5	6	7	Very affordable

A main effect for message sidedness should be seen; with subjects exposed to two-sided messages reporting significantly weaker beliefs and lower judgments on the disclaimed (secondary) attribute than for the subjects exposed to the one-sided message (see for e.g., Pechmann, 1992; Hastak and Park, 1990). However, we should also see an interaction effect, with the collectivists showing less of a difference on the perception and recognition of the disclaimed attribute between one- and two-sided messages than the individualists.

Attribute beliefs. Beliefs about the various attributes of the advertised product were measured using 7- point rating scales (Very Likely to Very Unlikely) similar to the scale shown above. Beliefs about a number of attributes not claimed in the ad will also be assessed. This was to explore the differences between individuals who are message oriented, versus those who are source oriented. The rating scales to assess the various beliefs regarding the product attributes are given in Section 2, Question 2 of Appendix D.

Attribute Importance. Subjects were asked to rate the importance of all the attributes using the following scales: (see also Appendix D, Section 2, Question 3).

3. Rate the following product features in terms of their importance in making a choice of a particular brand of the product similar to the one in the ad.

	Not Important At all						Extreme Important
	1	2	3	4	5	6	7
Luxuriousness	1	2	3	4	5	6	7
Comfortable grip	1	2	3	4	5	6	7
Writing performance	1	2	3	4	5	6	7
Freedom from skipping, smearing or smudging	1	2	3	4	5	6	7
Cost of refill cartridges	1	2	3	4	5	6	7

7.7.2 Attribute and Brand Evaluations

The following variables are all measured on 7- point semantic differential scales. Variables that are measured on multiple scales were operationalized as the average of those scales (See also Appendix I Section 2)

Overall brand evaluation. Four items are used.

(Q.5) Overall, how would you rate Tekscrib?

I completely dislike Tekscrib	1	2	3	4	5	6	7	I like Tekscrib a great deal
Tekscrib is a very bad brand	1	2	3	4	5	6	7	Tekscrib is a very good brand
Tekscrib is very unsatisfactory	1	2	3	4	5	6	7	Tekscrib is very satisfactory
Tekscrib has very low appeal	1	2	3	4	5	6	7	Tekscrib has very high appeal

Explain how you made your overall judgment.

Judgment of primary attribute. Three items are used.

(Q.6) How would you judge Tekscrib on *writing performance*?

Worst writing performance	1	2	3	4	5	6	7	Best writing performance
Very unsatisfactory writing performance	1	2	3	4	5	6	7	Very satisfactory writing performance
I strongly dislike Tekscrib's writing performance	1	2	3	4	5	6	7	I like Tekscrib's writing performance a great deal

Explain how you made your judgment of Tekscrib's writing performance.

Judgment of secondary attribute. Three items are used.

(Q.20) How would you judge Tekscrib on *the price of the refill cartridges?*

Very expensive	1	2	3	4	5	6	7	Very inexpensive
High priced	1	2	3	4	5	6	7	Low priced
Not at all affordable	1	2	3	4	5	6	7	Very affordable

Explain how you made your judgment of Tekscrib's price of refill cartridges.

Correspondence Score (CORSCORE) - Six items are used with space provided for additional items that the subject could suggest

Subjects were also asked to indicate on 7-point Likert scales, to what extent they agreed or disagreed that certain causes contributed to the product claims made in the advertisement they read. This is somewhat more focused than the explanations requested in the previous question. (Since there is some redundancy, the series of items was placed in a different position on the questionnaire.) The series of items used to assess the correspondence score (CORSCORE) is shown below.

(Q.1) Advertisers (persons promoting a product) may have one or more reasons for making claims about the product they are promoting. Using the scales given below, indicate to what extent you agree or disagree that the causes shown to the advertiser to make the product claims in the ad you read.

THE PRODUCT CLAIMS WERE MADE BECAUSE...

	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
the product actually possesses these characteristics	1	2	3	4	5	6	7
of the desire to sell the product	1	2	3	4	5	6	7
of the desire to deceive the consumer	1	2	3	4	5	6	7
the advertiser is paid to provide the information	1	2	3	4	5	6	7
of the advertiser's desire to be helpful to the audience	1	2	3	4	5	6	7
of the advertiser's genuine concern for the audience	1	2	3	4	5	6	7

PROVIDE YOUR OWN REASONS IF YOU WISH

_____	1	2	3	4	5	6	7
_____	1	2	3	4	5	6	7
_____	1	2	3	4	5	6	7
_____	1	2	3	4	5	6	7
_____	1	2	3	4	5	6	7
_____	1	2	3	4	5	6	7

The responses to the above questions were then be combined using the formula for the correspondence score (CORSCORE) developed by Mizerski (1974) and Smith and Hunt (1978) and given below. This score measures correspondence as the proportion of total causation that is accounted for by internal (dispositional) causes.

$$\text{Correspondence Score (CORSCORE)} = \frac{\text{Internal causes}}{\text{Int. causes} + \text{Ext. causes}} \times 10 \quad (7.1)$$

Smith and Hunt (1978, p. 155) provide an example:

If, for example, a respondent strongly agreed with the statement "a major reason for making the claims is that the product actually possesses these characteristics" and strongly disagreed with statements "a major reason for making these claims is that the advertiser primarily wanted to sell the product" and "a major reason for making these claims is that the advertiser was trying to 'trick' or 'deceive' me," his/her correspondence score was calculated as

$$5/[5 + (1 + 1)] \times 10 = 7.14.$$

Source honesty. Two measures were used;

The first set of items:

(Q.8) According to you, the advertiser (the person promoting the product) was:

Very dishonest	1	2	3	4	5	6	7	Very honest
Completely untrustworthy	1	2	3	4	5	6	7	Completely trustworthy
Totally insincere	1	2	3	4	5	6	7	Totally sincere
Totally unbelievable	1	2	3	4	5	6	7	Totally believable
Very biased	1	2	3	5	6	7	7	Very unbiased

The second measure:

(Q.15) How believable is the advertising message (i.e., the set of words and images used by the advertiser to convey his/her idea to you)?

Completely unbelievable	1	2	3	4	5	6	7	Completely believable
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7.7.3 Various Overall Perceptions of the Commercial
Attitude toward the ad. Four scales are used.

(Q. 9) In your opinion, the ad for Tekscrib was:

Very bad	1	2	3	4	5	6	7	Very good
Highly dislikable	1	2	3	4	5	6	7	Highly likable
Very unappealing	1	2	3	4	5	6	7	Very appealing
Totally uninteresting	1	2	3	4	5	6	7	Highly interesting

The coefficient alpha for this scale was .92 according to Keller (1987)

Perceived ambiguity of the message. Four scales were used.

(Q.11) Indicate how well the arguments in the message for Tekscrib are described by the following characteristics:

Totally vague, impossible to understand	1	2	3	4	5	6	7	Very straightforward, easy to understand
There is no meaning at all	1	2	3	4	5	6	7	There is only one possible meaning
Highly contradictory	1	2	3	4	5	6	7	Highly consistent
Completely unclear	1	2	3	4	5	6	7	Completely clear

Perceived Forcefulness of the Ad (Source Pressuring).

(Q.12) To what degree did you feel that the advertiser (the person promoting the product) was pressuring you?

Very low pressure	1	2	3	4	5	6	7	Very high pressure
Very aggressive	1	2	3	4	5	6	7	Very unaggressive
Very pushy	1	2	3	4	5	6	7	Not pushy at all

Coefficient alpha values in excess of .80 were achieved with this measure.

(Refer to Marketing Scales Handbook page 572).

Degree of Involvement With the Ad. (Message Involvement) Two sets of measures were used.

(Q. 13) Circle the number which corresponds to the degree to which you cared about the advertised information regarding the features of the pen.

I did not care at all about the advertised information regarding the brand features of the pen.	1	2	3	4	5	6	7	I cared a great deal about the advertised information regarding the brand features of the pen.
---	---	---	---	---	---	---	---	--

(Q.16) While looking at, and evaluating the advertising message, you were:

Very uninvolved	1	2	3	4	5	6	7	Very involved
Concentrating very little	1	2	3	4	5	6	7	Concentrating very hard
Paying very little attention	1	2	3	4	5	6	7	Paying a great deal of attention

Buying Intention.

(Q.14) What is the likelihood you will purchase the Tekscrib pen the next time an opportunity presents itself?

Definitely will not purchase	1	2	3	4	5	6	7	Definitely will purchase
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Source Expertise Three items were used.

(Q.21) How would you judge the advertiser (the person promoting the product) with respect to his/her knowledge about the pen?

Very inexperienced	1	2	3	4	5	6	7	Very experienced
Very uninformed	1	2	3	4	5	6	7	Very informed
Not expert	1	2	3	4	5	6	7	Highly expert

Involvement With the Product. To measure the involvement with the product, the questions tapping the five-dimensional *Consumer Involvement Profiles* of Laurent and Kapferer (1985) were used (Refer Appendix D, Section 3, Question 1). However, instead of using five point scales as suggested by the original authors and summing the items to obtain each dimensional score, the present author used 7-point scales, and took the mean of the sets of responses for each dimension.

7.7.4 Initial Attitude and Familiarity of the Subjects with the Product and Advocacy Issue

This section of the instrument assessed various aspects of the subjects' initial perception and usage of the product. Specifically, it measured: Subjects' initial attitude, familiarity with the product and advocacy issue, and present and/or past usage of the product.

(Q.4) Without referring to this particular brand of pen, what is your attitude toward these types (or category) of pens?

Very bad	1	2	3	4	5	6	7	Very good
Very unfavorable	1	2	3	4	5	6	7	Very favorable
Dislike very much	1	2	3	4	5	6	7	Like very much

Initial familiarity with the product class. (Refer to Appendix D, Section 3)

(Q.2) In general, would you consider yourself familiar or unfamiliar with good quality pens?

Very Familiar	1	2	3	4	5	6	7	Very Unfamiliar
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(Q.3) Would you consider yourself knowledgeable about good quality pens?

Know a great deal	1	2	3	4	5	6	7	Know nothing at all
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This measure was developed by Oliver and Bearden (1985) and was found to have a reliability of .85

Previous use of the product and acceptable price range for a pen of the quality described in the advertisement

(Q.4) Do you use pens of the **quality described in the ad**?

Yes ___ No ___ If yes, answer question 5.

If No, go directly to question 6.

(Q.5) How frequently do you use such pens?

___ Every day during work or study

___ Occasionally (say when writing personal letters or signing important documents or papers)

___ Rarely

(Q.6) If you had to purchase a good quality pen for **yourself**, in which of the following price ranges would you make your selection?

___ less than \$10

___ \$60 to \$100

___ \$10 to \$29

___ greater than \$100

___ \$30 to \$59

This measure was developed by Oliver and Bearden (1985) and was found to have a reliability of .85

7.7.5 Cognitive Responses

7.7.5.1 Categories of Cognitive Responses to Capture

One of the important mediating processes of message sidedness effects was shown to be the cognitive response mechanism. As was hypothesized, Anglo Ss and HKC Ss should react differently to 2-S versus 1-S messages, and this would manifest itself in the way they would cognitively respond to these messages. More specifically, the different levels of cognitive responses generated would show differences in favorability scores (essentially the difference between the positively valenced cognitions and the negatively valenced ones) in going from the Anglo Ss to the HKC Ss. In addition to differences in the mix of cognitions, there should also be differences in the weights assigned to them across the cultures.

As was seen in Chapter 3, consumers' cognitive responses can be classified along the dimensions of origin, target, and polarity. Moreover, origin was shown to have three possible foci: (1) the message or advertisement, (2) a reaction or inference drawn on the ad, and (3) a totally recipient-generated thought. The target dimension could similarly be classified into: the (1) the product/message, (2) the execution, or (3) the self. Finally, polarity of the thought could also be categorized as positive, negative, or neutral. Hence, for this study, it was necessary to capture the subjects' cognitive responses following their exposure to the mock advertisements. And, in a second step, it was necessary to have them coded by trained judges in order to generate the various classes of cognitive responses needed to test the hypotheses. Due to the complexity of the task, and the possible threats to reliability posed by the coding system, the approach used by Brucks, Armstrong, and Goldberg (1988) was used by the judges to classify the various thoughts produced by the subjects. Although this

method was more time consuming, and required more thought categories than were actually required for this study, it was felt to be more accurate and more flexible. The coding classification and definition used by these authors is given below.

Table 7.2
Cognitive Response Coding Scheme Used by Brucks, Armstrong, and Goldberg (1988)

<u>Coding Classification</u>	<u>Definition</u>
<i>Relevance of thought</i>	
Relevant	Thoughts connected to advertising or the product class.
Irrelevant	Thoughts having no connection to advertising or the product class.
Monitoring	Thoughts expressing that the product/ad is not appropriate for self.
<i>Target of thought</i>	
Product	Beliefs and feelings about the specific product.
Product class	Beliefs or feelings about the product class.
Advertisement	Beliefs and feelings about the specific advertisement.
Ad communicators	Thoughts about the actors or voices in the ad.
Product/ad combination	Thoughts that refer to either the product or the ad (or both), but where the specific target (Combis) cannot be distinguished.
Self	Thoughts about the self.
Other people	Thoughts about other people.
Advertising in general	Thoughts about advertising in general.
Other	Relevant thoughts not classified above.
<i>Origin of thought</i>	
Message-originated	Restatement or paraphrase of verbal or pictorial ad message. Little or no use of prior knowledge.
Modified message-memory originated	Reactions to, qualifications of, or illustrations of the material in the ad. Uses some of ad and some prior knowledge.
Recipient-generated cognitive	Thoughts that express pertinent beliefs not directly traceable to specific points in the ad. Use of prior knowledge.
Recipient-generated emotional	Thoughts that express pure affect toward the product, ad, communicator, or other relevant object or issue.
Polarity of thought	
Positive	Favorable thoughts.
Negative	Unfavorable thoughts.
Neutral	Thoughts that are neither favorable nor unfavorable.
<i>Combined Classifications</i>	
Advertising	Negative modified message-oriented thoughts focusing on the ad.
Counterarguments	
Product	Negative modified message-oriented thoughts focusing on the product.
Counterarguments	

These categories, after adaptation, were used to prepare the coding sheets which were used in the present study and shown in Appendix E. In addition to the above descriptions of the different CRs, the more extensive descriptions provided by Shavitt (1983), were used in training the judges prior to starting the coding task.

The categories of cognitive responses and cognitive response favorability scores used for the final tests of the hypotheses were also generated using an approach similar to that used by Brucks et al. (1988), and consisted of combining classifications (see, for e.g., Table 7.2 above). The various “composite” classifications that were used in the present study are given in Appendix F. For instance, low-level counterarguments, were defined as the cognitive responses which are targeted at the product or product class and which are message originated and negative in polarity. The self-modified counterarguments were defined as the cognitive responses which were targeted at the product or product class and which are modified-message in origin and negative in polarity. Finally, the self-originated counterarguments were defined as the cognitive responses which are targeted at the product or product class and which are recipient-cognitive in origin and negative in polarity.

These composite categories were subsequently used to generate the favorability scores that were used in the statistical analyses and shown in Appendix F.

The first thing that is observed in the above table, is that the cognitive response favorability scores are assessed for three “classes” of cognitive responses: Class 1 scores are based on the definition of support- and counterarguments as proposed by Wright (1973). The second and third classes are based on the work by Belch (1982) and Brucks, Armstrong, and Goldberg, (1988), and represent “expanded” classes of thoughts. For instance, Class 2 favorability scores are based not only on the standard Wright definitions of support arguments and counterarguments, but are also based on ad bolsters, ad derogations, as well as positive

and negative product/ad combinations (combis). Again, these are evaluated at the lowest level, the self-modified level, and the self-originated level. For Class 3, on the other hand, all three levels are combined to form a global cognitive response favorability score.

The second thing that can be observed, is the fact that, in addition to the “raw” favorability score, a favorability score *index* which corrects for differences in fluency was also generated. This was deemed necessary in view of the cross-cultural nature of the study. This was similar to an fluency-correction index used by Shavitt (1983). The index consists of the ratio of the raw-favorability score divided by the total positive and negative cognitions. In symbols:

$$\text{Fluency corrected CR favorability index (score)} = \frac{\sum \text{positive CRs} - \sum \text{negative CRs}}{\sum \text{positive CRs} + \sum \text{negative CRs}}$$

(These fluency corrected indices or scores can be recognized by the presence of an “F” following the class number in their labels).

Finally, it should be indicated that additional sets of favorability scores for class 2 and class 3 cognitive responses were also generated so as to also include thoughts targeted to the source. This, in effect, increased the number of cognitive responses, but only marginally. (These favorability scores can be recognized by the presence of a “B” suffix in their labels - e.g., FSSM2FB)

Two teams of judges were used to classify the thoughts: one team made up of coders whose mother tongue was English, while the other team was made up of bilingual coders, whose mother tongue was Hong Kong Chinese.

Two judges from each team classified each of the thoughts, resulting in the interjudge reliabilities shown in table 8.3. a third judge independently coded all thoughts on which the

first two judges disagreed. The interjudge reliability was based on examining the agreement in the classifications of the judges in the following categories: category 1: product/product class/combis, and category 2: advertisement/source. The second dimension used, was the polarity: positive, negative, and neutral. Thus, for instance, if coder 1 classified a thought as falling in category 1 and being positive in nature, then the second coder would also have to classify the thought in the same manner in order to get a match. The total number of cognitions coded by both subjects was determined along with the total number of cognitions that had the same coding. This latter figure was then divided by the former and the ratio multiplied by 100 to obtain the percentage of agreement of the codings. The interjudge reliability of the codings was also obtained for the category of "origin" of the cognitive responses using the same approach. The figures obtained are shown in Table 8.3.

The instructions to the subjects for the experiment, and the actual procedure for capturing the cognitive responses from the subjects is described below. It should be pointed out that either the present author or a research assistant administered the instruments according to a standard and rigid procedure. All the instruments had previously been randomized using a table of random numbers. The instrument was in two parts: Phase I and Phase II. Phase I captured most of the covariates and individual difference measures, as well as the cultural orientations and demographic information. Phase II was the actual experiment. It was deemed preferable to divide the instrument into two parts for administration at different times owing to the length of the questionnaires and the possible effect of fatigue on the quality of the responses. Hence, the approach was to administer Phase I about one to two weeks before Phase II.

The subjects were selected from colleges and universities in the Montreal, and Toronto (Canada) areas, as well as from a major Hong Kong University.

Anglo Canadian Subjects

For the Anglo Canadian subjects, professors were approached to ascertain whether they would permit the administration of the questionnaires in their classes. Although not all students in a particular class were Anglo Canadians who had volunteered for the study, everyone who agree to participate was welcomed in view of the fact that data with other cultures was to be used in later studies. Thus, the present author or a research assistant would set up an appointment for a particular class with the instructor. On the appointed day, the researcher would visit the class, ask for volunteers to carry out the study. In order to enlist as many subjects as possible in a given class, a prize, in the form of a drawing for a gift certificate upon completion of the Phase II questionnaire was announced (the certificate was in the amount of 25\$ per class).

Following the initial instructions, the volunteers were handed the Phase I questionnaire to complete. Depending upon the class and time availability of the instructor, students could either complete it on the spot, or be asked to complete it at home. Subjects were also told at this time the date for the actual experiment (Phase II) and asked to make sure to bring back the Phase I questionnaires with them during the second session. At the second appointed time, the researcher would go to the class and administer the second part of the instrument which consisted of the mock advertisement and the questionnaire. The subjects were given a general scenario to set the context for the study (see the general instructions for the experiment below). The subjects were told to examine the mock ad for three to five minutes, in the same manner that they would an ad in their favorite magazine. Following this, they were told to put turn the ad over on their desk and proceed to Section 1 which asked them to put down their cognitive responses. It should also be pointed out that the researcher provided a large clock with easy to read hands so that the subjects could abide by the strict time limits

required to capture the cognitive responses. At the end of the experiments, subject handed back both the Phase I and the Phase II questionnaires, as well as the mock ad. Once every student had completed the experiment, they were debriefed, and the researcher proceeded with the drawing of the gift certificate.

Hong Kong Chinese Subjects

For the Chinese subjects, two approaches were used to collect the data: (1) the same method as used for the Anglo Canadian subjects described above was used for students at one of the major Hong Kong Universities and for two private junior colleges in the Toronto, Canada area which specialize in courses for Chinese students; and (2) a method based on recruiting subjects among the fairly large number of Hong Kong students frequenting the English universities in Montreal. Essentially, either faculty members were approached to make an announcement in their classes for volunteers for this study, or the present author contacted Chinese student associations at the Montreal universities to recruit subjects. These individuals were then contacted by telephone to set a date for collecting the phase I questionnaire, and to set a date to complete Phase II of the experiment. Again, drawings were held, and each student who participated in the study, was given a ticket for a later draw of a gift certificate.

The Phase I and Phase II questionnaires in English and Chinese are shown in Appendix D. The actual instructions to the students for the experiment and for capturing the cognitive responses are reproduced below.

PHASE II QUESTIONNAIRE

GENERAL INSTRUCTIONS FOR THE EXPERIMENT

The company that manufactures the product shown in the advertisement included in this package is planning its world-wide launch, and this means that the product will soon be available in a retail store in your area. However, because of the international scope of its operations, it needs feedback on the proposed ad campaign. This, then, is the purpose of the present study. Your role is to evaluate the prototype ad that is included in your experimental package. After receiving instructions from the research assistant, take out the advertisement and read it **carefully - in the same manner that you would an ad in your favorite magazine**. This is important since you will be called upon to evaluate both the ad and the product itself.

Once you have answered all the questions, insert all the material in the brown envelope provided and hand it to the attendant. I would ask you to please not communicate or observe the work of others while carrying out the experiment. Also, please do not change previously completed responses. Since it will not be possible to have all the subjects in the sample take the experiment in the same day, do not discuss the experiment or procedures with anyone else after completing the questionnaire. This could seriously jeopardize the validity of the study.

PLEASE WAIT FOR FURTHER INSTRUCTIONS

SECTION I

The purpose of the next series of questions is to assess the various **THOUGHTS** which you may have had while examining the pen ad and the description of the pen therein.

In the space provided in **column I** below, write down all the **THOUGHTS** relevant to the pen or its advertisement which came through your mind while examining and reading the ad. Do not hesitate to write all your thoughts, even those that might not appear important to you. Do not take longer than three minutes to complete this task, but stop writing whenever you have no more thoughts to report. Report your thoughts using one or two words or short phrases. Ignore spelling, punctuation, and grammar. **WRITE ONLY ONE THOUGHT PER LINE.** If you need additional space, use the back of the page.

Note: Write only one thought per line

I	II	III
	: ___ :	: ___ :
	: ___ :	: ___ :
	: ___ :	: ___ :
	: ___ :	: ___ :
	: ___ :	: ___ :

Now, go back to the preceding listing of thoughts, and classify them on the following basis:

- 1- **On the degree to which you felt each thought to be positive, negative, or neutral.** For each of your answers, use the scale below to make your judgments. Thus, a +3 indicates that you qualify the thought that you wrote as being very positive, a -3 as being very negative, and a 0 as being neither positive nor negative.

VERY	-3	-2	-1	0	+1	+2	+3	VERY
NEGATIVE								POSITIVE

For each of your answers, indicate your evaluation by writing the number in the space reserved for that purpose under **column II** on the previous page.

- 2- **On the degree of importance that you attached to the thoughts in forming or influencing your attitude toward the brand of pen advertised. Use the following scale..**

THIS THOUGHT HAD A STRONG INFLUENCE ON MY ATTITUDE TOWARD THE ADVERTISED PRODUCT

1	2	3	4
STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE

Indicate your assessment of the strength of influence by writing the number in the space reserved for that purpose under **column III** on the previous page.

As can be seen, the subjects were given a maximum of three minutes to write down all the thoughts that came through their minds (a clock was set up in class to permit accurate timing). Following this task, the subjects had to perform two additional operations on these thoughts: First, they had to indicate whether each thought was positive, negative, or neutral. And, second, they had to indicate the degree of importance that they attached to each thought in forming or influencing their attitude toward the brand of pen advertised.

The use of both subjects and trained judges to code for the cognitive responses should provide for adequate validation of the measures. Wright (1973) for instance, used both subjects and judges to code for the importance/ weighing of cognitive responses. An identical pattern of importance of the cognitions between the subjects' coding and judges' coding was found. As Wright (1973, p. 60) states: "The evidence about mediator weighing found in the natural relationships of the coded protocol data and that from subjects' own perceptions of uncoded protocols must be viewed as convincingly validating each other." An additional, albeit indirect, method to assess the weight assigned to the cognitions and to validate the self-report technique described above, consist of simply counting the total number of each kind of CR produced. The assumption here is that the more important CRs will tend to be more numerous than the others (Shavitt and Brock, 1986).

7.7.6 Demographic and Personal Information

This section of the instrument obtained demographic and personal characteristics of the subjects. In carrying out cross-cultural studies in order to avoid possible confounding effects and plausible alternate hypotheses, it is essential to ensure that the groups compared across cultures are "equivalent" in terms of demographic and socio-economic profiles. The following information will be obtained: age, sex, education, marital status, employment status, income, household size, languages spoken, language spoken most often, country of origin, and a number of other items of information related to specific geographic regions where the subjects were raised, year emigrated, etc.

7.8 Data Analysis and Tests of the Hypotheses

7.8.1 Phase I - Test of Nominal Culture as Operationalization of the I-C Construct

As was described in the introduction to this chapter, the I-C construct was operationalized by the subjects' native culture. Before proceeding with the tests of the hypotheses, it was necessary to test the two cultures to assess whether, in effect, there are significant differences between them on the dimension of I-C. The Chinese should score higher than their Anglo counterparts on all three of the collectivist measures of the Colindex, as described earlier. To confirm these differences, t-tests or ANOVAs were carried out on the scores in the manner described by Kwan-Shin Chan (1994). Further details along with the results are given in Chapter 8.

7.8.2 Phase II - Tests of hypotheses 1 to 4.

In this phase, the tests of the hypotheses are carried out with nominal culture operationalizing collectivistic and individualistic groups. Results of the analyses appear in

Chapter 8. It should be kept in mind that, since the aim of the present study is to test hypotheses well founded in the literature, it will be necessary to carry out planned comparisons (see, for e.g., Keppel, 1982).

Test of Hypothesis 1a - Formation of Correspondent Attributions

This was tested with a one-way analysis of covariance (ANCOVA) with two treatment levels and multiple covariates. The statistical hypotheses are as follows:

$$H(0): \mu (\text{Anglo}) = \mu (\text{HKC})$$

$$H(a): \mu (\text{Anglo}) > \mu (\text{HKC})$$

The null hypothesis was tested at the .05 level of significance.

A preliminary screening of the covariates was carried out in order to ascertain the ones that have the greatest utility to adjust the dependent variable for predictable but unwanted sources of variability. This was carried out by examining the correlation of the entire set of covariates, namely, Need for Cognition, Self-Esteem, Scholasticity, Perceived Source Pressuring, and the three dimensions of Locus of Control - Chance, Powerful Others, Internal, with the dependent variable CORSCORE and with each other.

Test of Hypothesis 1b. - Perception of Source Honesty

This was tested using a two-way ANCOVA, with Source Honesty as the dependent variable, two treatment levels per factor, and multiple covariates. The hypotheses are as follows:

$$\text{Letting group } (1,1) = (\text{Anglo}, 1\text{-S})$$

$$(1,2) = (\text{Anglo}, 2\text{-S})$$

$$(2,1) = (\text{HKC}, 1\text{-S})$$

$$(2,2) = (\text{HKC}, 2\text{-S})$$

$$H(01): \frac{\mu(1,1) + \mu(1,2)}{2} = \frac{\mu(2,1) + \mu(2,2)}{2}$$

$$H(A1): \frac{\mu(1,1) + \mu(1,2)}{2} \neq \frac{\mu(2,1) + \mu(2,2)}{2}$$

$$H(02): \frac{\mu(1,1) + \mu(2,1)}{2} = \frac{\mu(1,2) + \mu(2,2)}{2}$$

$$H(A2): \frac{\mu(1,1) + \mu(2,1)}{2} \neq \frac{\mu(1,2) + \mu(2,2)}{2}$$

$$H(03): \mu(2,1) - \mu(1,1) = \mu(2,2) - \mu(1,2)$$

$$H(A3): \mu(2,1) - \mu(1,1) > \mu(2,2) - \mu(1,2)$$

These null hypotheses will be tested at the .05 level of significance.

A preliminary screening of the covariates was carried out in order to ascertain the ones that have the greatest utility to adjust the dependent variable for predictable but unwanted sources of variability. This was carried out by examining the correlation of the entire set of covariates, namely, Need for Cognition, Self-Esteem, Sclarity, Perceived Source Pressuring, and the three dimensions of Locus of Control - Chance, Powerful Others, Internal, with the dependent variable SOURCE HONESTY and with each other.

Test of Hypothesis 2a - Source Versus Message Orientation

This was tested with a one-way ANCOVA, with the Stone and Hoyt (1974) measure of source-message orientation (MSMES) as dependent variable, two treatment levels, and multiple covariates. The hypotheses to be tested are as follows:

$$H(0): \mu (\text{Anglo}) = \mu (\text{HKC})$$

$$H(a): \mu (\text{Anglo}) < \mu (\text{HKC})$$

A preliminary screening of the covariates was carried out in order to ascertain the ones that have the greatest utility to adjust the dependent variable for predictable but unwanted sources of variability. This was carried out by examining the correlation of the entire set of covariates, namely, Need for Cognition, Self-Esteem, Sclarity, Perceived Source Pressuring, and the three dimensions of Locus of Control - Chance, Powerful Others, Internal, with the dependent variable SOURCE MESSAGE ORIENTATION (MSMES) and with each other.

Test of Hypothesis 2b - Recognition of Two-Sided Feature of an Ad

This was tested with a two-way ANCOVA, with *Judgment of Price of Refill Cartridges* as the dependent variable (PRICEREF), two treatment levels per factor, and multiple covariates.

Letting group (1,1) = (Anglo, 1-S)
 (1,2) = (Anglo, 2-S)
 (2,1) = (HKC, 1-S)
 (2,2) = (HKC, 2-S)

$$H(01): \frac{\mu(1,1) + \mu(1,2)}{2} = \frac{\mu(2,1) + \mu(2,2)}{2}$$

$$H(A1): \frac{\mu(1,1) + \mu(1,2)}{2} \neq \frac{\mu(2,1) + \mu(2,2)}{2}$$

$$H(02): \frac{\mu(1,1) + \mu(2,1)}{2} = \frac{\mu(1,2) + \mu(2,2)}{2}$$

$$H(A2): \frac{\mu(1,1) + \mu(2,1)}{2} < \frac{\mu(1,2) + \mu(2,2)}{2}$$

$$H(03): \mu(1,2) - \mu(2,2) = \mu(1,1) - \mu(2,1)$$

$$H(A3): \mu(1,2) - \mu(2,2) > \mu(1,1) - \mu(2,1)$$

These null hypotheses will be tested at the .05 level of significance.

A preliminary screening of the covariates was carried out in order to ascertain the ones that have the greatest utility to adjust the dependent variable for predictable but unwanted sources of variability. This was carried out by examining the correlation of the entire set of covariates, namely, Need for Cognition, Self-Esteem, Sclarity, Perceived Source Pressuring, and the three dimensions of Locus of Control - Chance, Powerful Others, Internal, with the dependent variable Judgment of Price of Refill Cartridges (PRICEREF) and with each other.

Test of Hypotheses 3a, 3b, 3c - Favorability of Cognitive Responses

Since the favorability scores of the cognitive responses are derived from the same individual, and since these tend to be correlated, it is desirable to measure the different level favorability scores simultaneously. Hence, multivariate analyses of variance (MANOVA) or covariance (MANCOVA) will be carried out. A multivariate interaction hypothesis was first posited. Letting $\underline{u}(i,j)$ represents the vector of means containing the three means of the cognitive response variables (the dependent variables) from treatment i,j , where I =message sidedness (MS), and j =culture (QLANG), group (1,1) represents the one-sided, individualist treatments; group (1,2) represents the one-sided, collectivist treatments; group (2,1) represents the two-sided individualist treatments; while group (2,2) stands for the two-sided, collectivist treatments. The multivariate hypothesis would, therefore, be stated as:

$$H(0) = \underline{u}(2,2) - \underline{u}(2,1) = \underline{u}(1,2) - \underline{u}(1,1)$$

$$H(A) = \underline{u}(2,2) - \underline{u}(2,1) \neq \underline{u}(1,2) - \underline{u}(1,1)$$

A priori univariate hypotheses are proposed to explain the multivariate interaction. Specifically:

- 1- For the favorability of the **low-level cognitive responses (FSLL1F)**, it is posited that:

$$H(0): FSLL1F(1,1) - FSLL1F(1,2) = FSLL1F(2,1) - FSLL1F(2,2)$$

$$H(A): FSLL1F(1,1) - FSLL1F(1,2) > FSLL1F(2,1) - FSLL1F(2,2)$$

2. For the favorability of the **self-modified cognitive responses (FSSM1F)**, it is posited that:

$$H(0): FSLL1F(1,2) - FSLL1F(1,2) = FSLL1F(2,1) - FSLL1F(2,2)$$

$$H(A): FSLL1F(1,2) - FSLL1F(1,2) > FSLL1F(2,1) - FSLL1F(2,2)$$

3. For the favorability of the **self-originated cognitive responses (FSSO1F)**, it is posited that:

$$H(0): FSSO1F(1,2) - FSSO1F(1,2) = FSSO1F(2,1) - FSSO1F(2,2)$$

$$H(A): FSSO1F(1,2) - FSSO1F(1,2) > FSSO1F(2,1) - FSSO1F(2,2)$$

Hypothesis 3a can also be expressed as follows:

$$H(0): FSLL1F(2,2) = FSLL1F(1,2)$$

$$H(A): FSLL1F(2,2) \neq FSLL1F(1,2)$$

$$H(0): FSSM1F(2,2) = FSSM1F(1,2)$$

$$H(A): FSSM1F(2,2) \neq FSSM1F(1,2)$$

$$H(0): FSSO1F(2,2) = FSSO1F(1,2)$$

$$H(A): FSSO1F(2,2) \neq FSSO1F(1,2)$$

The above dependent variables are defined according to the definition of support and counterarguments as defined by Wright (1973), and are labeled the "Class 1," or narrow definition. The same hypotheses were also tested using two broader definitions as discussed by Belch(1982) and Brucks, Armstrong, and Goldberg (1988). The broader definitions are as follows:

Class 2 ---> 2FSLL2F, FSSM2F, FSSO2F

This favorability score is based on support arguments, counterarguments, ad bolsters, ad derogations, and positive and negative "combis" which are thoughts either targeted toward the product or the advertisement (or both), but where the specific target cannot be distinguished (Brucks, Armstrong, and Goldberg, 1988)

Class 3 ----> FSGLB3F

The third class of favorability scores are based on the summation of all the self-relevance levels.

As was mentioned earlier, in addition to classifying the (raw) favorability scores of the cognitive responses on the basis of breadth of target (i.e., as class 1, class 2, and class 3), it was also necessary to look at the "fluency corrected" scores. Both are reported below, in keeping with the work of Shavitt and Brock (1986) and the earlier work on two- versus one-sided and refutational messages. These two types are defined earlier in this chapter. The first set of results to be presented below represent the fluency-corrected favorability scores which correct for possible difference in fluency between the Anglo Ss and Chinese Ss. Following these scores, appear the non corrected scores.

A preliminary screening of the covariates was first carried out by examining the correlation of the entire set of covariates, namely Need for Cognition, Self-Esteem, Sclolarity, Perceived Pressure, and the three dimensions of the Locus of Control , with the various types of favorability scores of the cognitive responses, and with each other. As will be seen in Chapter 8, since the correlations either were of too small a magnitude and/or non-significant, none of the covariates were entered in the analysis. Thus, the test for these hypotheses consisted of Multivariate Analyses of Variance, with the three types of cognitive responses as dependent variables. Since there were three definitions of cognitive responses, starting with Wright's definition, and the Belch (1982) expanded definitions, three separate MANOVAs were carried out. However, prior to presenting the results of the analysis, it is necessary to evaluate the assumptions underlying MANOVA.

Test of Hypothesis 3d - Relative Weight Assigned to the Various Cognitive Responses

The hypothesis states that for individualist cultures exposed to 2-sided ads, SOCRs will be the most numerous and heavily weighted cognitions acting as mediators between two-sided appeals and cognitive structure variables. For members of collectivist cultures, on the other hand, self-modified Crs (SMCRs) will be weighted more heavily than either self-as-origin (SOCRs) or message-related CRs (LLCRs).

To test this hypothesis, two approaches will be used: In the first approach, the number of cognitive responses generated by each subject will serve to operationalize the importance attributed by the subject to this type of thought. Put another way, the more importance that an individual attaches to a particular thought, the greater the likelihood that this cognition will

appear. This, in turn should manifest itself in a greater number of these cognitions. Thus, in the first method, the mean number (or count) of each type of CR will first be calculated for the experimental groups exposed to two-sided ads. Following this, paired t-tests will be used to test for significant differences between the various types of CR.

In the second approach, path analysis will be used to estimate the strengths of the causal relationships between the three levels of cognitive responses and the consequent variables of the Judgment of Primary Attribute (JPA) and Overall Brand Evaluation (OBE). The path diagram is shown in Figures 8.1.

As indicated earlier, the present author has also conjectured that the self-modified cognitive responses generated by collectivists following exposure to two-sided messages, will largely be targeted to the execution or peripheral elements of the ad, instead of toward the product or message topic. This research question cannot be tested as a formal hypothesis due to the fact that (1) a number of cognitive responses have both the message and execution as target and (2) even when cognitions are clearly targeted to one or the other foci, imprecision of the coding process precludes disentangling the cognitions. Hence, the approach taken will be more exploratory, and based on an inventory of the various categories of cognitions.

Hypothesis 4 - Judgment of the Brand on the Primary Attribute and Overall Brand Evaluation

The approach to testing this hypothesis was similar to the earlier univariate tests. Either simple two-way analysis of variance or covariance, depending on the utility of the covariates in offering statistical control for the error. Two tests were carried out with the following

dependent variables: Judgment of the Brand on the Primary Attribute (MPERFORM), and Overall Brand Evaluation (MRATE). The statistical hypotheses for both of these dependent variables are similar, and are given below.

Letting group (1,1) = (Anglo, 1-S)

(1,2) = (Anglo, 2-S)

(2,1) = (HKC, 1-S)

(2,2) = (HKC, 2-S)

$$H(01): \frac{\mu(1,1) + \mu(1,2)}{2} = \frac{\mu(2,1) + \mu(2,2)}{2}$$

$$H(A1): \frac{\mu(1,1) + \mu(1,2)}{2} \neq \frac{\mu(2,1) + \mu(2,2)}{2}$$

$$H(02): \frac{\mu(1,1) + \mu(2,1)}{2} = \frac{\mu(1,2) + \mu(2,2)}{2}$$

$$H(A2): \frac{\mu(1,1) + \mu(2,1)}{2} \neq \frac{\mu(1,2) + \mu(2,2)}{2}$$

$$H(03): \mu(2,1) - \mu(1,1) = \mu(2,2) - \mu(1,2)$$

$$H(A3): \mu(2,1) - \mu(1,1) > \mu(2,2) - \mu(1,2)$$

Thus, the hypothesis basically states that a significant interaction occurs, and that this is due to a larger *differential effect* of message sidedness for individualistic cultures.

These null hypotheses will be tested at the .05 level of significance.

A preliminary screening of the covariates was carried out in order to ascertain the ones that have the greatest utility to adjust the dependent variable for predictable but unwanted sources of variability. This was carried out by examining the correlation of the entire set of covariates, namely, Need for Cognition, Self-Esteem, Solarity, Perceived Source Pressuring, and the three dimensions of Locus of Control - Chance, Powerful Others, Internal, with the dependent variable MPERFORM (or MRATE) and with each other.

7.8.3 Comparisons Between Experimental and Control Groups

1 - Language-controls.

These are randomly selected subjects from the collectivist (Chinese) pool of subjects who are exposed to the experimental stimuli in the English language. This English version is similar to the English language version of the individualist culture.

To exclude language effects as a possible rival explanation, it is necessary to show that the differential effect of one-sided versus two-sided messages is the same whether the experimental stimuli and instruments are administered in the English and Chinese language versions. This comparison should look at both the consequent variables of JPA and OBE and the mediating variables, source honesty, and the various types of cognitive responses. The simplest approach would be to run a 2 (native lang. versus English lang.) x 2 (one versus two-sided ad) MANCOVA and test for the multivariate main effects and the interaction effect. These effects were not expected to be significant. Particular attention was focused on the interaction. This test should was not expected to be significant, thus ruling out language as a rival hypothesis.

2 - Degree of Context in Ad

One of the two control groups from the collectivist pool of subjects was exposed to a one-sided no-context (i.e., reduced context) ad, while the other was exposed to a two-sided no-context ad. 2 (one-sided vs two-sided) by 2 (with context vs w/o context) ANCOVAs were carried out with JPA and OBE as dependent variables. In each case, only the main effect due to level of context was expected to be significant. Neither the main effect due to message sidedness or the interaction effect should be significant. a t-test was also carried out comparing the levels of external causes attributed to the product disclaiming behavior in the two-sided messages. a significantly higher number of external reasons were expected to be invoked in the case of two-sided "context" ads than with two-sided "no-context" ads. This will serve to rule out the lack of context as a competing explanation for the differential effects of message sidedness in the case of collectivists.

There is also, of course, the possibility that differences in effectiveness of two-sided over one-sided messages in the case of individualist subjects may be due to the higher levels of context provided in the ads. To eliminate this possibility individualist control groups were also exposed to one- and two-sided no-context appeals. To test for this effect, a 2 (one-sided vs two-sided message) x 2 (context vs no context) MANCOVA was carried out with JPA, OBE, correspondence score, and the various types of cognitive responses serving as a composite dependent variable. No significant multivariate main effect due to context (in contrast to collectivists Ss as seen above) or significant interaction effect between level of context and message sidedness were expected. Only a significant main effect due to message sidedness should have appeared.

CHAPTER 8

FINDINGS AND INTERPRETATION

8.1 Introduction

This chapter presents the results and interpretation of the statistical analysis of the data obtained in the experiment. Part A assesses the various measures used in the experiment. Part B examines the various manipulation checks carried out on the independent variables; while part C presents the results of testing the various research hypotheses described in Chapter 6. It should first be noted that a total of 175 sets of experimental results were obtained from the Anglo subjects, while 202 were obtained from the Chinese Ss. As a result of the randomization procedures described in Chapter 7, and the loss of subjects or invalidation of some data sets, the cells of the design contained an unequal number of subjects. The design with the final number of subjects in each cell is illustrated below.

Table 8.1
Design of the Experiment and Cell Sizes

Group	Cell No.	Culture	Message Sidedness	Language	Context Level	Cell Size(n)
Experimental 1	1	Anglo (I)	1	English	with context	52
Experimental 2	2	Anglo (I)	2	English	with context	71
Experimental 3	3	Chinese (C)	1	Chinese	with context	48
Experimental 4	4	Chinese (C)	2	Chinese	with context	43
Context control I-1	5	Anglo (I)	1	English	no context	26
Context control I-2	6	Anglo (I)	2	English	no context	26
Context control C-1	7	Chinese (C)	1	Chinese	no context	32
Context control C-2	8	Chinese (C)	2	Chinese	no context	26
Language control 1	9	Chinese (C)	1	English	with context	23
Language control 2	10	Chinese (C)	2	English	with context	26

8.2 Part A - Assessment of Measures

This section examines the psychometric quality of the multi-item measures of the various independent and dependent variables, as well as that of the covariates used to provide statistical control.

Multi-item measures were used for these variables. The approach used to arrive at a final set of common items in both cultures was an adaptation of the method proposed by Buss and Royce (1977). Separate factor analyses of the data for each measure were carried out in each culture. The factor structures were examined for similarity. If the structures were comparable, the items which loaded on the same factor and had loadings >0.4 were retained for subsequent purification. This approach was taken for all the independent variables and covariates, and most of the dependent variables. The only variable which was not comparable across the two cultures, and which also had unacceptable levels of reliability, was the *Uncertainty Avoidance* covariate. As a result, it had to be eliminated from the analysis. Tables 8.2, 8.3, and 8.4 show the reliability coefficients of the various measures, as well as the number of items included in the final measures for both cultural groups. Measures of the variables were obtained by summing the items

Table 8.2
Reliability of the Colindex Variables

Variable	Items Retained	Mean		Cronbach Alpha	
		Anglos	Chinese	Anglo	Chinese
Measure 2 (Value items)					
Collectivist Index (COLLVA)	6	4.08	4.40	.68	.72
Individualist Index (INDVA)	7	4.68	3.81	.74	.72
Measure 3 (Attitude items)					
Collectivist Index (COLLAT)	7	4.46	5.06	.57	.50
Individualist Index (INDAT)	6	4.38	4.08	.50	.60

Interrater Reliability for %S score (Anglo Ss) = 95.63%

Interrater Reliability for %S score (Chinese Ss) = 90.60%

Table 8.3
Reliability of Dependent Variables

Variable	Items Retained	Mean		Cronbach Alpha	
		Anglo	Chinese	Anglo	Chinese
Correspondence Score CORSCORE	6*	4.41	3.92	.46 (N=173)	.54 (n=148)
Overall Brand Evaluation (MRATE)	4	4.35	4.10	.83	.84
Judgment of Brand on Primary Attribute	3	4.84	4.63	.90	.89
(Writing performance - MPERFORM)					
Source Honesty (MADVI)	5	4.24	3.88	.82	.85
Judgment of Secondary Attribute Price of Refill (PRICEREF)	2	3.22	4.09	.83	.85
Source Message Orientation Measure 1 (based on Stone and Hoyt, 1974, measure) MSMES	6	4.73	4.75	.68	.63
<u>Interrater reliabilities for cognitive responses</u>					
<i>Coding categories:</i>					
Relevance of Thought				99.9%	99.9%
Target of Thought				77.7%	81.0%
Origin of Thought				82.0%	73.8%
Polarity of Thought				86.4%	81.0%

* These reliabilities were calculated on the basis of the 6 "fixed" items of the scale. However, the portion of the instrument to measure this variable also had an open-ended section in that it asked subjects to suggest some items. Hence, there was a greater average number of items than the six indicated. Thus, the actual reliability of the overall index is most likely higher than the figure reported in this table.

Table 8.4
Reliability of Covariates

Variable	Items Retained	Means		Cronbach Alpha	
		Anglo	Chinese	Anglo	Chinese
Self-Esteem (based on Rosenberg scale) SELFSUM	5	25.75	22.51	.84	.78
Self-Acceptance (based on abridged Berger scale) MSELF A	13	28.72	32.99	.87	.78
Locus of Control					
<i>Internal</i> dimension - LOCINTEX	5	4.60	4.30	.68	.59
<i>Powerful Other</i> dim. - LOCOTHER	3	2.69	3.20	.71	.78
<i>Chance</i> dimension - LOCCHANC	4	2.88	3.29	.71	.59
Need for Cognition MNFC	18	0.77	0.39	.78	.72
Perception of Forcefulness in the ad MPRESS	3	4.51	4.88	.92	.87

As the figures in the above tables reveal, some of the variables had marginal reliabilities. From table 8.2 we see that the variable making up the collectivist index for Measure 3 (COLLAT) for both cultural groups, and the items making up the individualist index for the Anglo group (INDAT) were marginal. Specifically, the reliabilities for the COLLAT variable were found to be .57 and .50 for the Anglo and Chinese groups respectively; while the reliability for the INDAT measure was .50. These low reliabilities had been anticipated, and were the reason for the multimethod approach developed by Kwan-Shin Chan (1994). Also noteworthy, is the fact that the reliabilities obtained in this study on the attitude-based measures of the I-C construct (Measure 3) are higher than those reported by Kwan-Shin Chan.

The reliabilities of the measure of the Correspondence Score (CORSCORE) were also found to be low, with values of .46 for the Anglo Ss, and .54 for the Chinese Ss. As was indicated in the footnote however, the reliability measure does not capture the open-ended component of the question. Had this also

been taken into account, the variable would have revealed a greater internal consistency than it did.

The interrater reliabilities ranged from 77.7% (target of thought) to 99.9% (relevance for thought) for the cognitive responses of the Anglo Ss; and from 73.8% (origin of thought) to 99.9% (relevance for thought) for the cognitive responses of the HKC subjects. These compare favorably with interjudge reliabilities of other researchers in the same area (e.g., Brucks, Armstrong, and Goldberg, 1988).

Lastly, from table 8.4 we can see that all the covariates retained for this study met acceptable standards (Nunnally, 1967), with coefficient alphas ranging from .59 to .92. Moreover, for most of the above dependent variables and covariates, the values for the Anglo Ss and Chinese Ss are essentially the same.

In conclusion, one covariate - Uncertainty Avoidance - had such poor psychometric properties and cross-cultural equivalence, that it had to be eliminated from the analysis. Of the variables that were retained for the study, only those that made up the attitude-based measure of I-C and the CORSCORE dependent variable had marginal reliabilities. The remainder all met acceptable standards, indicating that correlation attenuations due to measurement error should not be a problem.

8.3 Part B - Manipulation Checks

Message-sidedness (MS). If the independent variable was effectively manipulated in the experiment, the belief on the secondary attribute, price of refill, should be significantly higher in the two-sided message than for the one-sided message. To determine whether the two-sided manipulations were successful, subjects were asked to give their belief, on a 7 point scale (very unlikely to very likely), of the likelihood that the Tekscrib pen had a low cost refill cartridge. The results of the manipulation checks for the Anglo Canadian and Chinese groups, and for the various experimental and control conditions are shown in Table 8.5.

Table 8.5
Beliefs on the Price of Refill Cartridges
in One-sided Versus Two-sided Messages
For Experimental Treatments and For Control Groups

Experimental Groups	Anglo		Chinese	
	One-sided	Two-sided	One-sided	Two-sided
Experimental Groups	3.1154	1.9577	4.0208	3.0233
	(t=4.48) ^a		(t=2.60) ^a	
“Context” control groups	2.5769	2.4231	3.7742	3.1923
	(t=.36)		(t=1.25)	
“Language” control groups	-----	-----	3.6957	2.2692
			(t=3.04) ^a	

One-tailed test significant beyond .01 level

The above table shows the mean scores on the subjects' perception of the cost of the pen's refill cartridges - the secondary attribute. Lower scores on this measure reflects a greater likelihood that the pen would have a more expensive refill. The t-tests compare the perception of the cost of the refill cartridges between the subjects exposed to the one-sided and two-sided message. Separate comparisons were made for the Anglo Ss and the Chinese Ss, and for the experimental and control groups. As the table reveals, there are significant differences in the experimental groups for both the Anglo Ss and the Chinese Ss, as well as in the comparison of the one-sided and two-sided language control groups for the Chinese Ss. For these groups, the two-sided subjects perceived a significantly higher cost for the refills than for the case of the one-sided subjects. Hence, the manipulation was clearly effective for these groups. For the “context” control groups, however, for both the Anglo and Chinese subjects, the manipulations did not “take” to the same extent. The t-tests failed to reach significance; however, there is directional evidence for the greater perception of higher priced refills for the two-sided messages.

It was also essential to examine the difference in importance attributed to the primary versus the secondary attributes, namely, *Writing Performance* and *Cost of Refill Cartridges*. In order for the two-sided message to be more effective than its one-sided counterpart, it is essential that the attribute disclaimed not be considered as important as the primary attribute; otherwise disclaiming the secondary attribute might not only increase perceived credibility of the source, but it could also generate negative attitudes toward the (important) secondary attribute and the brand overall. To test for the differential level of importance between these two attributes, paired t-tests were carried out over the ten cells of the experimental design. Results are shown in table 8.6.

Table 8.6
Paired t-tests for assessing the differential in importance
attributed to the primary and secondary attributes

Group	Cell No.	Culture	MS	Mean Importance Ratings		Paired t-test
				Writing performance IMP3	Cost of refills IMP5	
Experimental 1	1	(I)	1	5.9493	4.8462	3.33 ^a
Experimental 2	2	(I)	2	6.2535	4.7887	7.42 ^a
Experimental 3	3	⊙	1	6.0833	4.7083	5.21 ^a
Experimental 4	4	⊙	2	6.5581	4.6512	7.54 ^a
Context control I-1	5	(I)	1	6.3077	5.1923	4.16 ^a
Context control I-2	6	(I)	2	6.2692	5.1923	3.03 ^a
Context control C-1	7	⊙	1	5.9688	4.2500	4.41 ^a
Context control C-2	8	⊙	2	6.5769	4.8077	5.53 ^a
Language control 1	9	⊙	1	6.5217	4.7391	4.94 ^a
Language control 2	10	⊙	2	5.9231	4.9615	2.14 ^b

^a Significant beyond .01 level.

^b Significant beyond .05 level.

Results from table 8.6 show that there is a significant difference in perceived importance between the primary attribute (writing performance) and the secondary or disclaimed attribute (cost of refills) - the

primary attribute being perceived as more important than the secondary attribute. For instance, for cell writing performance had a mean importance rating of 5.95 (on a 7 point scale - "not important at all" "extremely important"), while cost of refill had an importance rating of 4.85, with the difference significant beyond the .01 level. We can see that the primary attribute is rated as fairly important (close to 6 on a 7 point scale) while the secondary attribute is rated close to 5 on the 7-point scale - still perceived as important (4 being indifferent), but less so than the primary attribute. Thus, the data points to the manipulation as having "taken" as well.

Test of Nominal Culture as Operationalization of the I-C Construct. (Phase I results):

In order to ensure that the nominal cultures did indeed differ on the dimension of individualism-collectivism, each subject was administered the Colindex measures (Kwan-Shin Chan, 1994). As seen earlier, the Colindex consisted of three measures of the variable. All three measures revealed significant differences between the Anglo Canadian and Hong Kong Chinese subjects on the dimensions on collectivism and individualism. This is shown in Tables 8.7, 8.8, and 8.9.

The interrater reliabilities for the first measure of collectivism, namely the %Score, was 95.64% for the Anglo Ss and 90.60% for the Chinese Ss. Table 8.7 reveals that Anglo Canadians obtained a mean of 26.96 for the %S score, while the Chinese had a mean of 35.34, $t = -4.50, p < .000$.

Table 8.7
T-test for Measure 1 of Individualism-Collectivism
Social Content of the Self (%S)

Group	N	%S Mean	Std. Dev.	t-value	DF	2-tail Prob.
1 (Anglos)	153	26.960	16.595	-4.50	343	.000
2 (Chinese)	192	35.337	17.621			

Since %S measures the percentage of responses which refer to “common fate” in the “I am... statements, one can see the higher level of collectivism shown by the Chinese.

For the second measure, based on Schwartz’s value items, the reliabilities of the collectivism measure (COLLVA) are given in Fig. 8.2. Table 8.8a and 8.8b shows the results of separate oneway ANOVAs with the collectivism measure (COLLVA) and individualist (INDVA) using culture as the independent variable. Both are significant, with $F(353) = 8.15$, $p < .01$ and $F(350) = 55.83$ $p < .0000$, respectively.

Table 8.8a
Means for Measure 2 of Individualism & Collectivism
Based on Schwartz’s Value Items - Collectivist measure means

Variable	Anglo	Hong Kong
Collectivist measure (COLLVA)	4.0804	4.4009
Std. Deviation	(1.0610)	(1.0523)
	N=170	N=185

Anova Results

Source	Df	SS	MS	F	p
COLLVA	1	9.10	9.10	8.15	.0046
Within (error)	353	393.97	1.12		
Total	354	403.07			

Table 8.8b
Individualist measure

Variable	Anglo	Hong Kong
Individualist measure (INDVA)	4.6769	3.8075
Std. Deviation	(0.9838)	(1.1793)
	N=168	N=184

Anova Results

Source	Df	SS	MS	F	p
INDVA	1	66.38	66.38	55.83	.0000
Within (error) 350	416.17	1.19			
Total	351	482.55			

The reliabilities of the third set of measures using the attitude items, are also shown in Fig. 8.2. Anovas were run on the scores obtained for the two cultures as seen in Table 8.9. The results were also significant. For the collectivism measure (COLLAT), $F(367) = 61.95$, $p < .0000$; while for the individualism measure (INDAT), $F(365) = 10.38$, $p < .01$.

Table 8.9a
Means for Measure 3 of Individualism & Collectivism
Attitude Items - Collectivist Measure

Variable	Anglo	Hong Kong
Collectivist measure (COLLAT)	4.4635	5.0566
Std. Deviation	(0.7987)	(0.6479)
	N=172	N=197

Anova Results

Source	Df	SS	MS	F	p
COLLAT	1	32.30	32.30	61.94	.0000
Within (error) 367	191.36	0.521			
Total	368	223.67			

Table 8.9b - Individualist Measure

<u>Variable</u>	<u>Anglo</u>	<u>Hong Kong</u>
Individualist measure (INDAT)	4.3769	4.0829
Std. Deviation	(0.8237)	(0.9136)
	N=172	N=195

Anova Results

<u>Source</u>	<u>Df</u>	<u>SS</u>	<u>MS</u>	<u>F</u>	<u>p</u>
INDAT	1	7.91	7.91	10.38	.0014
Within (error)	365	277.94	0.762		
<u>Total</u>	<u>366</u>	<u>285.84</u>			

The value-based, and attitudinal-based tests were also run after standardizing the data (not reported here). The results also revealed significant differences on the dimensions between the Anglo Ss, and Hong Kong Chinese. Thus, it can be concluded that these two groups represent two cultural groups differing on the dimensions of collectivism and individualism. The Anglo subjects scored significantly higher (lower) on individualism (collectivism) than the Chinese Ss.

Comparability of the Cultural Samples Along Key Demographic Dimensions

In cross-cultural research efforts must be made to ensure that the cultural samples be comparable, otherwise one could invoke alternative explanations for any differences in results which might appear across the cultures (Brislin and Baumgardner, 1971).

In the present study, the two principal groups examined were the Anglo Canadians and Hong Kong Chinese. However, as indicated in Chapter 7, part of the sample of the Chinese subjects was selected from students attending Canadian universities and colleges, while the

other was selected from students attending a large Hong Kong University. Thus, sample comparability had to take into account both the cultural dimension, as well as the geographical area of residence, in the case of the Chinese subjects.

Statistical comparisons of the various groups were carried out. The first comparisons were made between the Anglo Canadian Ss and the entire set of Hong Kong Chinese Ss using chi-square tests on the variables of age, sex, living status (i.e., at or away from home), family income, and scolarity. No differences were found for sex and scolarity. However, the Anglo Canadians differed with respect to age, living status, and family income. The Chinese Ss were found to be somewhat younger than the Anglo Canadian Ss, and to be more likely to live either with their parents or temporarily away from home. By contrast, the Anglo Canadian subjects demonstrated higher frequencies of either owning their own homes or living in their own apartments - again demonstrating their higher average ages. Lastly, the Chinese tended to have lower family incomes than their Anglo Canadian counterparts. Based on these findings, the two groups are not entirely comparable. However, on the important variable of scolarity, they were comparable. As was seen earlier, this variable was shown to interact with message sidedness. A second means of ensuring comparability with respect to scolarity, was achieved by using this variable as a covariate in the analyses, as will be seen later. Lastly, it should be pointed out that subjects also met another important criterion of comparability: the fact that they all came from essentially the same "occupational" group, namely, students. The subjects were either students at junior colleges or universities.

The second set of comparisons carried out examined the differences between the Chinese subjects presently residing in Canada and those residing in Hong Kong. Chi-square tests were carried out on the dimensions of age, sex, family income, and scolarity. No significant differences were found between the groups on sex and family income. However,

differences were found with respect to age and scolarity: 97% of the residents of Hong Kong were between the ages of 20 to 24, in contrast to 62% for those residing in Canada. The next highest category for the latter subjects was the 17 to 19 years category which represented 26% of this group. There was a much greater spread in the ages of the Chinese students residing in Canada, with ages ranging from 17 to over 35.

The differences found in the scolarity of the two groups also reflects the fact that the residents of Hong Kong were exclusively university students, in contrast to the Canadian sample which was made up partly of junior college students, university students, and some college graduates. For the Hong Kong residents, the highest frequencies occurred in the range of 15 to 17 years of scolarity.

In contrast to the comparison between the Anglo Canadian and total Chinese sample, differences were found in the Chinese sub-groups with respect to years of schooling (scolarity). However, three factors helped to minimize the impact of this difference: First, scolarity was also used as a covariate; secondly, the fact that the subjects residing in Hong Kong only made up 20% of the entire Chinese sample; and, finally, care was taken in randomly assigning the subjects to the various experimental and control cells.

Level of Product and Message Involvement

In order to assess whether there were differences in the level of product involvement between the various cells, the dimensions of the Laurent and Kapferer (1985) *Consumer Involvement Profiles* were obtained. The five dimensions of the *Consumer Involvement Profiles* are:

- Perceived Importance/Risk
- Subjective probability of Mispurchase
- Sign Value
- Hedonic Value
- Interest

Tukey tests were carried out on all the cell means to test for significant differences. The means for the above dimensions for each cell in the design are given in Appendix A. As can be seen, the levels of involvement with the *product* are relatively low. However, only for *Sign Value* and *Interest* were significant differences between cells found. These cells are shown in Tables 8.10 a, b below.

Table 8.10a

INTEREST

(*) Indicates significant differences which are shown in the lower triangle

	G G G G G G G G G G
	r r r r r r r r r r
	P P P P P P P P P P
	1
	1 2 5 4 6 3 9 0 8 7
Mean	Cell
2.0833	Grp 1
2.1831	Grp 2
2.2821	Grp 5
2.3810	Grp 4
2.6795	Grp 6
2.7153	Grp 3
2.7246	Grp 9
2.7692	Grp10
2.8933	Grp 8
2.9375	Grp 7 *

Table 8.10b

SIGN VALUE

(*) Indicates significant differences which are shown in the lower triangle

		G G G G G G G G G
		r r r r r r r r r r
		P P P P P P P P P P
		1
		1 6 5 2 9 8 7 3 4 0
Mean	Cell	
4.0897	Grp 1	
4.2308	Grp 6	
4.2500	Grp 5	
4.2817	Grp 2	
4.4928	Grp 9	
4.6923	Grp 8	
4.7986	Grp 7 *	
4.8077	Grp 3 *	
5.0513	Grp 4 *	
5.2171	Grp10 *	

The means for message involvement are shown in Table 8.10c. As can be seen, the grand mean was found to be 4.55, which is slightly above neutral (on a 7 point scale - strongly disagree to strongly agree). Hence, the level of involvement with the message appears to be moderate. Also shown in the figure are the results of the Tukey test carried out to test for significant differences between the cells. Pairs (1,4) and (2,4) showed significant differences. Although these are the experimental cells, given the fact that the level of involvement was moderate, slight differences should not pose a serious threat to internal validity.

Table 8.10c

MESSAGE INVOLVEMENT

(*) Indicates significant differences which are shown in the lower triangle

```

G G G G G G G G G G
r r r r r r r r r r
p p p p p p p p p p
  1
1 0 7 2 9 8 3 5 6 4

```

Mean	Cell
4.0897	Grp 1
4.2308	Grp10
4.2500	Grp 7
4.2817	Grp 2
4.4928	Grp 9
4.6923	Grp 8
4.7986	Grp 3
4.8077	Grp 5
5.0513	Grp 6
5.2171	Grp 4

* *

8.4 Part C - Tests of Hypotheses

The remainder of the chapter will discuss the results that bear on the study's hypotheses.

The Impact of Culture on the Attribution Process and on the Perception of the Honesty of the Source Following Reception of a Two-sided Message

Hypothesis 1a - Formation of Correspondent Attributions

H1a predicts that, following exposure to a two-sided message, members of an individualist society such as the Anglo Canadian (sub)culture, will tend to assign greater causality to internal dispositional properties of the source than would members of a collectivist culture such as Hong Kong Chinese. The latter, instead, would have a greater tendency to invoke external, situational factors as explanations for the advertiser's behavior.

A preliminary screening of the covariates was first carried out by examining the correlation of the entire set of covariates, namely need for cognition, self-esteem, scolarity, perceived pressure, and the three dimensions of the locus of control, with the dependent variable CORSCORE, and with each other. The correlations appear in Appendix B. Sclarity (SCHOOL) and self esteem (SELFSUM) appeared to be the best prospects to act as covariates in an analysis of covariance with CORSCORE as dependent variable and nominal culture as the independent variable. This analysis was carried out on the experimental subjects exposed to the two sided ads (cells 2 and 4) using the SPSSx program.

Results of evaluation of the assumptions of normality of sampling distributions, homogeneity of variance, and homogeneity of regression were satisfactory. The covariates retained, namely, self-esteem (SELFSUM) and scolarity (SCHOOL) were reliable.

Unfortunately, the reliability of the dependent variable CORSCORE was only marginal, as was seen earlier. Table 8.11 provides the results of the planned comparison analysis of covariance.

Table 8.11

Oneway Analysis of Covariance Summary Table

Source of variation	Degree of freedom	Sum of squares	Mean squares	t Statistic	Probability
Parallelism	2	0.92	0.46	0.714	0.599
Within & Residual (error)	107	95.68	0.89		
Error (within cells)	109	96.60	0.89		
Regression (covariates)	2	0.17	0.09	0.316	0.908 ²
Culture (Model)	1	6.01	6.01	2.60*	0.005 ¹
(Total)	3	7.50	2.50	1.68*	0.042
	112	104.10	0.93		

¹ One-tailed test

² Two-tailed test

* Significant at $p < .05$

The above results support the hypothesis. The mean correspondence score for the Anglo Ss exposed to a two-sided message was 4.443, whereas the mean score for the Chinese sample was 3.918 ($t = 2.60, p < .05$). This indicates that the Anglo subjects tended to generate a statistically higher level of internal attributions than did their Chinese counterparts. The correspondence score measures correspondence as the proportion of total causation that is accounted for by internal (dispositional) causes. These findings support the hypothesis of

greater internal (dispositional) attributions on the part of individualists. Neither of the two covariates provided a reliable unique adjustment of the dependent variable. As will be seen later, however, these findings may need to be tempered in the light of the results of the control group comparisons.

Hypothesis H1b - Perception of Source Honesty.

Hypothesis H1b predicted that subjects from individualist cultures will perceive a greater positive change in source honesty following reception of a two- versus one-sided message than would members of collectivist cultures.

A preliminary screening of the covariates was first carried out by examining the correlation of the entire set of covariates, namely need for cognition, self-esteem, scolarity, perceived pressure, and the three dimensions of the locus of control, with the dependent variable source honesty (MADVI) and with each other, for all of the experimental cells. The correlations appear in Appendix B. Need for cognition (MNFC), scolarity (SCHOOL), and perceived pressure (MPRESS) appeared to offer the best prospects for statistical control in a two-way analysis of covariance with source honesty (MADVI) as the dependent variable and nominal culture and message-sidedness as the independent variables. A two-way analysis of covariance was performed on the experimental subjects using the SPSSx "Manova" program. This program was chosen since it permits full diagnostics of analysis of covariance.

Results of evaluation of the assumptions of normality, homogeneity of variance and homogeneity of regression were satisfactory (see also the test for parallelism in Table 8.12b). The covariates retained were need for cognition (MNFC), perceived pressure (MPRESS), and

scolarity (SCHOOL). As table 8.3 indicates, the measures of the dependent variable, source honesty, as well as the covariates were reliable. Table 8.12a provides the means of the dependent variable for the four experimental conditions, while table 8.12b summarizes the results of the ANCOVA.

Table 8.12a

Variable	Means and Adjusted Means for Source Honesty			
	Anglo		Chinese	
	1-sided	2-sided	1-sided	2-sided
Source Honesty (MADVI)	4.215	4.165	3.711	3.833
Adjusted Means	4.299	4.202	3.630	3.793
Std. Deviation	(0.771)	(0.865)	(0.875)	(0.635)
N	52	71	47	43

Table 8.12b
Two-Way ANCOVA Summary Table

Source of variation	Degree of freedom	Sum of squares	Mean squares	t Statistic	Probability
Parallelism	9	1.98	0.22	0.59	0.957
Within & Residual (error)	195	122.49	0.63		
Regression (covariates)	3	9.40	3.13	2.27*	0.002
Culture (QLANG)	1	13.58	13.58	4.72*	0.000
Message Sidedness (MS)	1	0.06	0.06	0.3	0.763
Culture by Message Sidedness (QLANG BY MS)	1	0.85	0.85	1.18	0.119 ¹
Within cells (error)	206	125.47	0.61		

¹ one-tailed

* significant at $p < .05$

The results failed to support the interaction hypothesis. The message sidedness main effect also failed to reach significance. It would thus appear that the two-sided messages did not raise the perceived level of source honesty for either the Anglo or Chinese sample. As the literature review section indicated, a number of studies had found a significant effect of message sidedness on source honesty for North American subjects, but some had not (see, for e.g., Hastak and Park, 1990). A strong main effect for culture was, however, obtained ($t=4.72, p<.001$), indicating that the Chinese subjects perceived significantly less source honesty for either message sidedness condition than their Anglo Canadian counterparts. This is certainly an area which merits further study.

Table 8.13 gives the correlations between the covariates and the predicted dependent variable. The figures reveal that the two covariates need for cognition (MNFC) and perceived pressure (MPRESS) are moderately related to source honesty. The individual univariate regression analyses of the dependent variable on the covariates further reveal that these two provide reliable unique adjustment of source honesty after all other effects are considered: MNFC, $t=-2.939, p<.01$; MPRESS, $t=2.183, p<.05$. The remaining covariate, scolarity, provided no reliable adjustment.

Table 8.13
Correlations Between Covariates and Predicted Dependent Variable

	Covariate		
	Need for Cognition	Perceived Pressure	Scolarity
Source Honesty	-.342	.324	.172

The Impact of Culture on Message Versus Source Orientation and Recognition of Embedded Disclaimers in Advertising Messages

Hypothesis H2a - Source Versus Message Orientation

Hypothesis H2a states that members of collectivist cultures are more source oriented than members of individualist cultures when attending to advertising messages. The latter, instead, will tend to be more message oriented. Hence, collectivists should show lower scores on the Stone and Hoyt (1974) measure of source-message orientation than the latter.

A preliminary assessment of the utility of the covariates in adjusting the dependent variable source-message orientation (MSMES) was carried out first examining the correlation of the entire set of covariates with the dependent variable, and, secondly, by examining the correlation matrix of all the covariates with each other - for all of the Anglo and Chinese subjects. The correlations of the covariates with the dependent variable appear in Appendix B. The correlations between the dependent variable and covariates were all close to zero and non-significant. Hence, a simple oneway analysis of variance was carried out on the dependent variable, with culture as independent variable. The means obtained for the two groups were almost identical, with the Anglo group mean being 4.7293 (n=174), and the Chinese group scoring 4.7514 (n=197). The planned comparison failed to reach significance ($t = .192$, $p > .05$). Hence, the null hypothesis could not be rejected.

Hypothesis H2b - Recognition of Two-sided Feature of an Ad

Hypothesis H2b states that, following exposure to a two-sided message, members of collectivist cultures should not have the same tendency to recognize the two-sided feature of

the message as their individualist counterparts. To test this hypothesis, it is necessary to examine the differential responsiveness of Anglo and Chinese subjects to the disclaimer embedded in the two sided message. It was already shown earlier, using t-tests, that the message sidedness manipulation was effective for both cultural groups. In other words, compared to one-sided messages, subjects from both cultures detected the presence of the disclaimer embedded in the two-sided ad. (It was necessary to show this, otherwise any possible effects due to the hoped-for “two-sided manipulation” could not be attributed to this manipulation.). What this hypothesis proposed, is that the two groups would differ in their ability to detect the embedded disclaimer because of a differential source/message orientation: the Chinese subjects perceiving a smaller differential in terms of the perceived price of the refill (the disclaimer) between one- and two-sided ads compared to their Anglo counterparts. This should manifest itself as an interaction in a two (1-sided versus 2-sided message) by two (Anglo versus Chinese) factorial analysis of covariance with “judgment of price of refill” (PRICEREF) as the dependent variable.

The usual preliminary assessment of the utility of the covariates was carried out. The correlation matrix of the covariates with PRICEREF appears in Appendix B. Only two covariates appeared to be useful for statistical control. These were: self-esteem and perceived pressure.

Results of evaluation of the assumptions of normality, homogeneity of variance and homogeneity of regression were satisfactory (see also the test for parallelism in Figure 8.14b). As table 8.3 indicates, the measures of the dependent variable, “judgment of price of refill” (PRICEREF), as well as the covariates were reliable. Table 8.14a provides the means of the

dependent variable for the four experimental conditions, while table 8.14b summarizes the results of the planned comparison ANCOVA.

Table 8.14a
Means for Judgment of Price of Refills (PRICEREF) (secondary attribute)

Variable	Anglo		Chinese	
	1-sided	2-sided	1-sided	2-sided
Price of Refills (PRICEREF)	3.608	2.791	4.628	3.895
Std. Deviation	(1.024)	(1.011)	(0.947)	(1.085)
N	51	67	47	43

Table 8.14b
Two-Way ANCOVA Summary Table

Source of variation	Degree of freedom	Sum of squares	Mean squares	t Statistic	Probability
Parallelism	6	6.66	1.11	0.99	0.438
Within & Residual (error)	196	221.29	1.13		
Regression (covariates)	2	2.79	1.40	1.11	0.292
Culture (QLANG)	1	41.31	41.31	6.05*	0.000
Message Sidedness (MS)	1	28.67	28.67	5.04*	0.000 ¹
Culture by Message Sidedness (QLANG BY MS)	1	0.13	0.13	0.33	0.368 ¹
Within cells (error)	202	227.95	1.13		

¹ one-tailed * significant at p < .01

The above results fail to support the research hypothesis of an interaction effect of the two independent variables of message sidedness and culture on “perceived price of refills” ($t=.33, p>.05$). As expected, the results show the main effect due to message sidedness ($t=5.04, p<.01$), confirming the earlier manipulation check. A strong main effect was also found for culture ($t=6.05, p<.01$), which may indicate that the Chinese Ss may perceive the pen and the refill as being, on the whole, more expensive than their Anglo counterparts.

Results from the tests of Hypotheses 2a and 2b failed to uncover differences in perceptual orientations and message cue recognition between the two cultures. Aside from the possibility that such effects may have been weak and hard to detect, the other likely explanation is centered on the fact that the subjects had been instructed to evaluate the prototype ad. As a result, their natural selective processes may have been overridden by a more focused attention to satisfy the requirements of the experiment.

The Effects of Culture and Message Sidedness on Cognitive Responding

Hypotheses 3a,3b,3c - Favorability of Cognitive Responses of Collectivists.

Hypothesis 3a states that, when members of collectivist cultures are exposed to either one-sided or two-sided appeals, there should be no significant differences in the favorability of the lower-level, the self-modified, or the self-originated cognitive responses. That is, message sidedness should have no differential effect on the favorability of these types of cognitive responses.

Hypothesis 3b states that, following exposure to a two-sided advertisement, members of individualist cultures will generate less favorable lower-level CRs (i.e., message- and execution- originated CRs) than their collectivist counterparts. In contrast, the lower-level CRs of individualists should be more favorable than those of collectivists when exposed to one-sided messages.

Hypothesis 3c states that, following exposure to a two-sided advertisement, members of individualist cultures will generate more favorable self-modified and self-originated cognitive responses than their collectivist counterparts. In contrast, members of individualist cultures exposed to one-sided appeals will generate less favorable self-modified and self-originated cognitive responses than their collectivist counterparts.

Since the above cognitive responses are correlated, as a result of being emitted by the same subject, a multivariate interaction hypothesis is first posited.

The above dependent variables are defined according to the definition of support and counterarguments as proposed by Wright (1973), and are labelled the "Class 1," or narrow definition (FSSL1F, FSSM1F, FSSO1F). The same hypotheses were also tested using two broader definitions as discussed by Belch(1982) and Brucks, Armstrong, and Goldberg (1988). The broader definitions are as follows:

Class 2 ---> 2FSSL2F, FSSM2F, FSSO2F

This favorability score is based on support arguments, counterarguments, ad bolsters, ad derogations, and positive and negative "combis" (thoughts either targeted toward the product or the advertisement, or both, but where the specific target cannot be distinguished - Brucks, Armstrong, and Goldberg, 1988)

The third class of favorability scores are based on the summation of all the self-relevance levels.

Class 3 ----> FSGLB3F

As was mentioned in Chapter 7, in addition to classifying the favorability scores of the cognitive responses on the basis of breadth of target (i.e., as class 1, class 2, and class 3), it was also necessary to look at both "raw" favorability scores, and the "fluency corrected" scores. Both are reported below, in keeping with the work of Shavitt (1983). These two types are defined in Chapter 7. The first set of results to be presented below represent the fluency-corrected favorability scores which correct for possible difference in fluency between the Anglo Ss and Chinese Ss. Following these scores, appear the non-corrected scores.

A preliminary screening of the covariates was first carried out by examining the correlation of the entire set of covariates, namely need for cognition, self-esteem, scolarity, perceived pressure, and the three dimensions of the locus of control , with the various types of cognitive responses, and with each other. These are shown in Appendix B. Except for the low-level cognitive responses (FSLL1F) the remaining correlations were very low and, hence, did not warrant the inclusion of the covariates into the analysis. Consequently, a two (Anglo and Chinese culture) by two (one-versus two-sided message) Multivariate Analysis of Variance was carried out with the three types of cognitive responses as dependent variables. Since there were three definitions of cognitive responses, starting with Wright's definition, three separate MANOVAs were carried out. However, prior to presenting the results of the analysis, it is necessary to evaluate the assumptions underlying MANOVA.

Multivariate Normality

Tabachnick and Fidell (1989) indicate that MANOVA is fairly robust to modest departures from normality, even with unequal “n” and a few DVs. They state that a sample size of about 20 in the smallest cell should ensure robustness. As will be seen below, the smallest cell in the experimental groups tested is made up of 43 Ss. Hence, it is felt that any departure from normality should not be a major concern in running the Manova’s.

Homogeneity of Variance-Covariance Matrices

Of greater concern to the validity of applying this technique, was the possibility that the assumption of homogeneity of the variance-covariance matrices was untenable. This was of special concern because of the unequal cell sizes. To test for homogeneity of the variance-covariance matrices, both the Box-F and Box-M tests were performed. The Box-M test is also “notoriously sensitive” as a test. Thus, according to Tabachnick and Fidell (1989), robustness of the significance tests is not guaranteed when sample sizes are unequal and Box’M test is significant at $p < .001$. Under these circumstance, according to them: “The more numerous the DVs and the greater the discrepancy in cell sample sizes, the greater the potential distortion of α levels.”

Homogeneity of variance-covariance matrices of the Class 1, fluency-corrected favorability scores

As can be seen in Table 8.15 below, for the first dependent variable, the FSL1F, the Box-F test would indicate that there might be reason to reject the hypothesis of equality of the variances of FSL1F in the experimental groups. However, given the fact that the Box-M test fails to reach significance, one can be reasonably confident that this assumption is tenable.

Table 8.15
Tests for Homogeneity of Variance-Covariance Matrices
for Class 1 Favorability Scores (Fluency Corrected)
and Bartlett's Test of Sphericity

Variable	
FSL1F	Bartlett-Box $F(3,73526) = 4.62401, P = .003$
FSSM1F	Bartlett-Box $F(3,73526) = 0.33006, P = .804$
FSSO1F	Bartlett-Box $F(3,73526) = 1.86104, P = .134$

Box-M = 25.536 F with (18, 123057) DF = 1.380 p=.129

Bartlett's Test of Sphericity = 53.298 with 3 df, Significance = .000

Table 8.16a gives the means and standard deviations of dependent variables under the various treatments, while table 8.16b gives the planned comparison two-way manova table for the cognitive responses as defined by Wright (Class 1 CRs)..

Table 8.16a

Means of the Class 1, Cognitive Response Favorability Scores (Fluency Corrected)

Variable .. FSLL1F

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
CULTURE	ENGLISH					
MS	1S	.298	.457	52	.171	.425
MS	2S	.217	.465	71	.107	.327
CULTURE	CHINESE					
MS	1S	.104	.309	48	.015	.194
MS	2S	.116	.324	43	.016	.216

Variable .. FSSM1F

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
CULTURE	ENGLISH					
MS	1S	-.147	.748	52	-.356	.061
MS	2S	-.032	.761	71	-.212	.148
CULTURE	CHINESE					
MS	1S	.010	.825	48	-.229	.250
MS	2S	-.323	.714	43	-.543	-.104

Variable .. FSSO1F

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
CULTURE	ENGLISH					
MS	1S	-.206	.398	52	-.317	-.095
MS	2S	-.038	.493	71	-.154	.079
CULTURE	CHINESE					
MS	1S	-.104	.371	48	-.212	.004
MS	2S	-.070	.402	43	-.194	.054

Table 8.16b
 Multivariate Planned Comparisons Analysis of Variance
 for the Message Sidedness by Culture Experiment
 Class 1 Fluency-Corrected CRs Favorability Scores as Dependent Variables

Source of Variation	Sum of Squares and products			Multivariate			Univariate			
	FSSL1F	FSSM1F	FSSO1F	Lambda	Df	F(Prob.)	DF	FSSL1F	FSSM1F	FSSO1F
Message	.06	.19	-.18	.98	3	1.48(.22)	1	.369(.544)	1.05(.306)	2.90(.09)
Sidedness (MS)	.19	-.61	-.57							
	.18	-.57	-.53							
Culture (QLANG)	1.12	..51	-.26	.96	3	2.60(.053)	1	6.8(.01)	.39(.53)	0.34(.56)
	.51	.23	-.12							
	-.26	.12	.06							
Interaction (QLANG by MS)	.11	-.54	-.16	.96	3	3.16(.026)*	1	.67(.206 ¹)	4.47(.018 ¹)	1.27(.131 ¹)
	-.54	2.61	.78							
	-.16	.78	.23							
Within Groups (error)	34.70	30.06	3.75							
	30.06	122.45	8.05							
	3.75	8.05	38.37							

¹ 1-tailed test * Significant at $p < .05$

As can be seen from table 8.16b, the multivariate test for the culture by message sidedness interaction is significant. This indicates that the vectors of favorability scores for one- and two-sided messages differ across the two cultures. Further examination of the univariate tests reveals that the dependent variable responsible for the multivariate effect is the self-modified cognitive response favorability score. Moreover, an examination of the means indicates that they are in the direction hypothesized. The Anglo Ss exposed to the two-sided message had more favorable cognitive responses than their one-sided counterparts (-0.032 versus -.147). For the Chinese, on the other hand, the subjects exposed to the two-sided message generated more unfavorable CRs than subjects exposed to one-sided messages. The table also reveals a significant main effect for culture on the low-level favorability scores

Homogeneity of variance-covariance matrices of the Class 2, fluency-corrected favorability scores.

Table 8.17 reveals that for the first dependent variable, the FSSL2F, the Box-F test proved to be significant, as was seen earlier for the Class 1 CRs. The Box-M test was also found to be significant, but not at the $p < .001$ level required, according to Tabachnick and Fidell, to invalidate the robustness of the test. Hence, one can again be reasonably confident that this assumption is applicable.

Table 8.17
Tests for Homogeneity of Variance-Covariance Matrices
for Class 2 Favorability Scores (Fluency Corrected)
and Bartlett's Test of Sphericity

Variable		
FSSL2FB	Bartlett-Box $F(3,73526) = 6.25744$	$P = .000$
FSSM2FB	Bartlett-Box $F(3,73526) = .34143$	$P = .795$
FSSO2FB	Bartlett-Box $F(3,73526) = .43913$	$P = .725$
Box-M = 33.8051 F with (18, 123057) $DF = 1.6653$ $p = .038$		
Bartlett's Test of Sphericity = 74.176 with 3 df, Significance = .000		

Table 8.18a
Means of the Class 2, Fluency-Corrected Cognitive Responses

Variable .. FSLL2F

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
CULTURE	ENGLISH					
MS	1S	.317	.505	52	.177	.458
MS	2S	.201	.483	71	.086	.315
CULTURE	CHINESE					
MS	1S	.104	.309	48	.015	.194
MS	2S	.116	.324	43	.016	.216

Variable .. FSSM2FB

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
CULTURE	ENGLISH					
MS	1S	-.402	.750	52	-.611	-.194
MS	2S	-.300	.733	71	-.474	-.127
CULTURE	CHINESE					
MS	1S	-.165	.804	48	-.398	.069
MS	2S	-.483	.694	43	-.696	-.269

Variable .. FSSO2FB

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
CULTURE	ENGLISH					
MS	1S	-.321	.503	52	-.461	-.181
MS	2S	-.150	.580	71	-.287	-.013
CULTURE	CHINESE					
MS	1S	-.250	.526	48	-.403	-.097
MS	2S	-.209	.559	43	-.381	-.037

Table 8.18b
 Multivariate Planned Comparisons Analysis of Variance
 for the Message Sidedness by Culture Experiment
 With Class 2 Fluency-Corrected Cognitive Response Indices as Dependent Variables

Source of Variation	Sum of Squares and products			Multivariate				Univariate		
				Wilk's			P(Probability)			
	FSSL2F	FSSM2F	FSSO2F	Lambda	Df	F (Prob.)	DF	FSSL2F	FSSM2F	FSSO2F
Message Sidedness (MS)	.14	.29	-.28	.98	3	1.37(.25)	1,210	.776(.379)	1.08(.300)	1.94(.165)
	-.28	-.59	.73							
Culture (QLANG)	1.14	-.21	-.05	.96	3	3.15(.026)*	1,210	6.3(.013*)	0.07(.79)	0.01(.93)
	-.21	.04	-.01							
	-.05	-.01	.17							
Interaction (QLANG by MS)	.21	-.70	-.22	.95	3	.48(.017)*	1,210	1.18(.140 ¹)	4.10(.022 ¹)	0.736(.19)
	-.70	2.28	.71							
	-.22	.71	.22							
Withing Groups (error)	38.23	33.55	9.85							
	33.55	114.89	17.51							
	9.85	17.51	62.55							

¹ 1-tailed test * Significant at p<.05

The results shown in table 8.18b also support the interaction hypothesis. There is a significant multivariate effect and significant univariate effect for self-modified cognitive response favorability score. The CRs of the Anglo Ss exposed to two-sided ads are more favorable than for those exposed to the one-sided message. The reverse holds for the Chinese subjects. A significant effect was also found for culture for the low-level cognitive responses. Anglo Ss had higher favorability scores for both one- and two-sided ads. Thus, we see that HKC subjects perceive both types of ads more unfavorably than their Anglo counterparts.

The hypothesized multivariate interaction is again significant as is the favorability of the self-modified cognitive responses ($F(1,210) p < .05$). An examination of the means of the favorability scores of the low-level (FSSL2F) and the self-originated CR favorability scores (FSSO2F) reveals that the means for the Anglo Ss offer directional support for the hypothesis, being in the hypothesized direction. For the HKC sample, on the other hand, there is also support for the hypothesis that two-sided messages do not generate more favorable cognitive responses than one-sided ads.

For the HKC Ss, we can see a strong negative value for the favorability score for the two-sided message compared to the 1-sided one (-.483 versus -.165). For the low-level and high-level cognitive responding, however, there is a slightly higher favorability score for the 2-sided message as compared to the one-sided one (but non significant).

Homogeneity of variance-covariance matrices of the Class 2, fluency-corrected favorability scores (with source cognitions).

Table 8.18 reveals that for the first dependent variable, the FSSL2FB, the Box-F test proved to be significant, as was seen earlier for the Class 1 CRs. The Box-M test was also found to be significant, but not at the $p < .001$ level required, according to Tabachnick and Fidell, to invalidate the robustness of the test. Hence, one can again be reasonably confident that this assumption is applicable.

Table 8.19a
Tests for Homogeneity of Variance-Covariance Matrices
for Class 2 Favorability Scores (Fluency Corrected, With Source as Target)
and Bartlett's Test of Sphericity

Variable	
FSSL2FB	Bartlett-Box F(3,73526) = 6.52027, P = .000
FSSM2FB	Bartlett-Box F(3,73526) = .25953, P = .855
FSSO2FB	Bartlett-Box F(3,73526) = .37666, P = .770

Box-M = 33.44905 F with (18, 123057) DF = 1.808 p=.019
Bartlett's Test of Sphericity = 74.361 with 3 df, Significance = .000

Table 8.19b
Means of the Class 2, Fluency-Corrected
Cognitive Responses (with source targeted cognitions)

Variable .. FSSL2FB						
FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
CULTURE	ENGLISH					
MS	1S	.317	.505	52	.177	.458
MS	2S	.215	.492	71	.099	.332
CULTURE	CHINESE					
MS	1S	.104	.309	48	.015	.194
MS	2S	.116	.324	43	.016	.216

Variable .. FSSM2FB						
FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
CULTURE	ENGLISH					
MS	1S	-.415	.731	52	-.619	-.212
MS	2S	-.296	.735	71	-.470	-.122
CULTURE	CHINESE					
MS	1S	-.159	.786	48	-.388	.069
MS	2S	-.464	.689	43	-.677	-.252

Variable .. FSSO2FB						
FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
CULTURE	ENGLISH					
MS	1S	-.340	.510	52	-.482	-.198
MS	2S	-.136	.571	71	-.271	-.001
CULTURE	CHINESE					
MS	1S	-.313	.552	48	-.473	-.152
MS	2S	-.279	.591	43	-.461	-.097

Table 8.19c
 Multivariate Planned Comparisons Analysis of Variance
 for the Message Sidedness by Culture Experiment
 With Class 2 Fluency-Corrected Cognitive Response
 Indices (With Source Targeted Cognitions) as Dependent Variables

Source of Variation	Sum of Squares and products			Multivariate				Univariate		
	FSSL2FB	FSSM2FB	FSSO2FB	Wilk's Lambda	Df	F (Prob.)	DF	FSSL2FB	FSSM2FB	FSSO2FB
Message Sidedness (MS)	.10	.22	-.28	.98	3	1.43(.24)	1	.563(.454)	0.82(.365)	2.36(.126)
	-.28	-.57	.73							
Culture (QLANG)	1.26	-.35	-.46	.95	3	3.65(.013)*	1	6.8(.010 ¹)	.18(.67)	.552(.458)
	-.35	.10	-.13							
	-.46	-.13	.17							
Interaction (QLANG by MS)	.17	-.62	-.25	.95	3	3.45(.018)*	1	0.91(.171 ¹)	4.28(.020 ¹)	1.217(.136 ¹)
	-.62	2.32	.94							
	-.25	.94	.38							
Within Groups (error)	38.87	33.44	10.77							
	33.44	114.10	19.45							
	0.77	19.45	65.02							

¹ 1-tailed test * Significant at p<.05

Homogeneity of variance-covariance matrices of the Class 3, fluency-corrected favorability score.

As can be seen in Table 8.20 below, for the single (univariate) dependent variable, FSGLB3F, the Box-F test was not significant, demonstrating homogeneity of variance among the experimental groups.

Table 8.20
 Test for Univariate Homogeneity of Variance
 for the Class 3 Favorability Score, Corrected for Fluency
 (With Source Targeted Cognitions)

Variable	
FSGLB3FB	Bartlett-Box $F(3,73526) = .52395, P = .666$

Table 8.21a
 Means of the Class 3 Favorability Score, Corrected for Fluency

Variable .. FSGLB3F	FACTOR	CODE	Mean	Std. Dev.	N	95 percent	Conf. Interval
	CULTURE	ENGLISH					
	MS	1S	-.357	.749	52	-.565	-.148
	MS	2S	-.286	.737	71	-.461	-.112
	CULTURE	CHINESE					
	MS	1S	-.158	.805	48	-.392	.076
	MS	2S	-.453	.666	43	-.658	-.248

Table 8.21b
 Univariate Planned Comparisons Analysis of Variance
 for the Message Sidedness by Culture Experiment With the Class 3 Fluency-Corrected
 Cognitive Response Index as Dependent Variable (FSGLB3F)

Source of variation	Degree of freedom	Sum of squares	Mean squares	t Statistic	Probability
Culture (QLANG)	1	.01	.01	0.173	0.874
Message Sidedness (MS)	1	.65	.65	1.086	0.278
Culture by Message Sidedness (QLANG BY MS) (error)	1	1.72	1.72	1.77	0.039 ^{1*}
Total	213	117.88	0.55		

¹ one-tailed * significant at $p < .05$

Strong support for the hypothesis is also revealed by examining the favorability scores for the Class 3 cognitive responses. Table 8.21b reveals a significant culture by message sidedness interaction. For the Anglo Ss, two-sided messages produced more favorable scores than one-sided ads, -.286 versus -.357, respectively. For the Chinese, on the other hand, two-sided messages produced considerably more negative responses than for Ss exposed to one-sided messages: -.453 versus -.158, respectively.

Test of Hypotheses Based on “Raw” Favorability Scores

The results that follow represent the test of the hypotheses on the “raw” favorability scores. These, in essence, are simply made up of the difference between the positive cognitive responses generated and the negative cognitive responses. Results are shown for the totals of the cognitive responses, both excluding and including source targeted cognitions. The latter cognitions are identified by the suffix “B” in the acronym for the favorability score (i.e., FSLL2B, FSSO2B, FSGLB3B)

Homogeneity of variance-covariance matrices of the Class 1, non-fluency-corrected favorability scores.

As can be seen in Table 8.22a below, for the first and second dependent variables (FSLL1 and FSSM1), the Box-F scores are significant. Moreover, the Box-M score is significant at $p < .001$, indicating that for this set of dependent variables, it appears that the variance-covariance matrices within each cell of the design may not be sampled from the same population variance-covariance matrix. In other words, the assumption of homogeneity is not applicable for these dependent variables.

Table 8.22a
 Tests for Homogeneity of Variance-Covariance Matrices
 for Class 1 Favorability Scores (Non-Fluency -Corrected)
 and Bartlett's Test of Sphericity

Variable	
FSLL1	Bartlett-Box F(3,73526) = 27.69575, P = .000
FSSM1	Bartlett-Box F(3,73526) = 6.49490, P = .000
FSSO1	Bartlett-Box F(3,73526) = 1.72725, P = .159

Box-M = 166.88064 F with (18, 123057) DF = 6.31839 p=.000
 Bartlett's Test of Sphericity =

Table 8.22b
 Means of the Class 1 Cognitive Response
 Favorability Scores (Non-Fluency -Corrected)

Variable .. FSLL1						
FACTOR	CODE	Mean	Std. Dev.	N	95 percent	Conf. Interval
CULTURE	ENGLISH					
MS	1S	.692	1.351	52	.316	1.068
MS	2S	.634	1.486	71	.282	.985
CULTURE	CHINESE					
MS	1S	.292	.967	48	.011	.572
MS	2S	.116	.324	43	.016	.216

Variable .. FSSM1						
FACTOR	CODE	Mean	Std. Dev.	N	95 percent	Conf. Interval
CULTURE	ENGLISH					
MS	1S	.135	1.103	52	-.442	.172
MS	2S	.070	1.496	71	-.284	.425
CULTURE	CHINESE					
MS	1S	.208	1.701	48	-.285	.702
MS	2S	-.140	2.100	43	-.786	.507

Variable .. FSSO1						
FACTOR	CODE	Mean	Std. Dev.	N	95 percent	Conf. Interval
CULTURE	ENGLISH					
MS	1S	-.327	.648	52	-.507	-.146
MS	2S	-.042	.546	71	-.172	.087
CULTURE	CHINESE					
MS	1S	-.146	.505	48	-.292	.001
MS	2S	-.093	.479	43	-.240	.054

Table 8.22c
 Multivariate Planned Comparisons Analysis
 of Variance for the Message Sidedness by Culture Experiment
 With Class 1 Cognitive Responses as Dependent Variables

Source of Variation	Sum of Squares and products			Multivariate				Univariate		
	FSLI1	FSSMI	FSSOI	Lambda	Df	F (Prob.)	DF	FSLI1	FSSMI	FSSOI
Message Sidedness (MS)	.71	.43	-1.02	.98	3	1.88(.13)	1	0.50(.480)	0.103(.749)	4.83(.029*)
	-1.02	-.62	1.47							
Culture (QLANG)	10.89	-1.58	-1.55	.96	3	3.25(.023*)	1	7.73(.006)	0.09(.77)	0.72(.40)
	-1.58	.23	.22							
	-1.55	.22	.22							
Interaction (QLANG by MS)	.18	.83	.35	.98	3	1.12(.342)	1	0.13(.362 ¹)	1.547(.109 ¹)	2.28(.066 ¹)
	.83	3.95	1.66							
	.35	1.66	.69							
Withing Groups (error)	295.89	115.46	8.18							
	115.46	539.79	23.82							
	8.18	23.82	63.92							

¹ 1-tailed test * Significant at p<.05

Homogeneity of variance-covariance matrices of the Class 2, non-fluency-corrected favorability scores with source targeted cognitions.

As can be seen in Table 8.23a below, for the first and third dependent variables (FSLI2B and FSSO2B), the Box-F scores are significant. Moreover, the Box-M score is significant at p<.001, indicating that for this set of dependent variables as well, the assumption of homogeneity of variance-covariance matrices is untenable.

Table 8.23a
Tests for Homogeneity of Variance-Covariance Matrices
for Class 2 Favorability Scores (Non-Fluency -Corrected)
and Bartlett's Test of Sphericity

Variable	
FSSL2B	Bartlett-Box $F(3,73526) = 31.87779, P = .000$
FSSM2B	Bartlett-Box $F(3,73526) = .83910, P = .472$
FSSO2FB	Bartlett-Box $F(3,73526) = 2.70216, P = .044$

Box-M = 113.959 F with (18, 123057) DF = 6.16050 p=.000

Bartlett's Test of Sphericity =

Table 8.23b
Means of the Class 2 Cognitive Response
Favorability Scores (Non-Fluency -Corrected)

Variable .. FSSL2B							
FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval		
CULTURE	ENGLISH						
MS	1S	.846	1.552	52	.414	1.278	
MS	2S	.690	1.635	71	.303	1.077	
CULTURE	CHINESE						
MS	1S	.292	.967	48	.011	.572	
MS	2S	.116	.324	43	.016	.216	

Variable .. FSSM2B							
FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval		
CULTURE	ENGLISH						
MS	1S	-2.212	3.780	52	-3.264	-1.159	
MS	2S	-1.887	3.588	71	-2.737	-1.038	
CULTURE	CHINESE						
MS	1S	-0.917	3.195	48	-1.844	.011	
MS	2S	-1.698	4.021	43	-2.935	-.460	

Variable .. FSSO2B							
FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval		
QLANG	ENGLISH						
MS	1S	-0.558	.916	52	-.813	-.303	
MS	2S	-0.268	1.055	71	-.517	-.018	
QLANG	CHINESE						
MS	1S	-0.521	.922	48	-.789	-.253	
MS	2S	-0.535	1.316	43	-.940	-.130	

Table 8.23c
 Multivariate Planned Comparisons Analysis of Variance
 for the Message Sidedness by Culture Experiment -
 Class 2 Cognitive Response, Non-Fluency Corrected,
 With Source Targeted Cognitions Favorability Scores as Dependent Variables

Source of Variation	Sum of Squares and products			Lambda	Df	Multivariate			Univariate		
	FSSL2B	FSSM2B	FSSO2B			Wilk's	F (Prob.)	DF	FSSL2B	FSSM2B	FSSO2B
Message Sidedness (MS)	1.42	1.96	-1.18	.99	3	0.69(.56)	1	.832(.363)	.203(.653)	0.886(.348)	
	-1.18	-1.63	.98								
Culture (QLANG)	16.45	-21.64	3.36	.92	3	6.05(.001)*	1	9.64 (.002 ¹)	2.14(.145)	.617(.433)	
	-21.64	28.47	-4.42								
	3.36	-4.42	.69								
Interaction (QLANG by MS)	.005	.28	.08	.99	3	6.82(.564)	1	.003(.479 ¹)	1.19(.139 ¹)	1.075(.151 ¹)	
	.28	15.78	4.34								
	.08	4.34	1.20								
Withing Groups (error)	358.29	373.11	41.62								
	373.11	2788.51	170.04								
	41.62	170.04	233.42								

¹ 1-tailed test * Significant at p<.05

Homogeneity of variance-covariance matrices of Class 3, non-fluency-corrected favorability score.

As can be seen in Table 8.24 below, for the single (univariate) dependent variable, FSGLB3B, the Box-F test was not significant, demonstrating homogeneity of variance among the experimental groups.

Table 8.24
 Test for Univariate Homogeneity of Variance
 for the Class 3 Non-Fluency-Corrected Favorability Score

Variable	
FSGLB3B	Bartlett-Box $F(3,73526) = 2.07720$, $P = .101$

Table 8.25a
 Means of the Class 3 Non-Fluency-Corrected Favorability Scores

Variable .. FSGLB3B

FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
CULTURE	ENGLISH					
MS	1S	-1.923	5.009	52	-3.318	-.529
MS	2S	-1.310	4.671	71	-2.415	-.204
CULTURE	CHINESE					
MS	1S	-.896	3.532	48	-1.922	.130
MS	2S	-1.860	4.318	43	-3.189	-.532

Table 8.25b
Univariate Planned Comparisons Analysis of Variance
for the Message Sidedness by Culture Experiment
Class 3 Cognitive Response with-Source Targeted Cognitions
Non-Fluency-Corrected Favorability Score as Dependent Variable (FSGLB3B)

Source of variation	Degree of freedom	Sum of squares	Mean Squares	t Statistic	Probability
Culture (QLANG)	1	2.94	2.94	0.387	0.701
Message Sidedness (MS)	1	1.60	1.60	0.283	0.777
Culture by Message Sidedness (QLANG BY MS)	1	32.16	32.16	1.27	0.102 ¹
Within cells (error)	210	4176.52	19.89		
Total	213	4211.38	19.77		

¹ one-tailed * significant at $p < .05$

Unfortunately for both the Class 1 and Class 2 CR favorability scores, the assumption for the equality of the variance-covariance matrices within each cell of the design could not be supported. However, a perusal of the means obtained (Refer to Tables 8.21a and 8.22) shows that, for the Anglo Ss, for the low-level CR favorability score, the one-sided means are higher than the means for the Ss exposed to the 2-sided message - as hypothesized. However, for the self-modified and for the self-originated cognitive response favorability scores, a reversal takes place, with the two-sided messages being more favorable than their one-sided versions. As for the Chinese Ss, we see the low-level favorability scores being stronger for the one-sided ad - as for the Anglos, but maintaining this order for the self-modified cognitive

responses. For the self-originated cognitive responses, on the other hand, the magnitudes of the favorability scores are closer together - suggesting that there is no difference in cognitive responding at this level.

In sum, the direction of the means reveals that the Anglos, on the whole, generate more favorable cognitive responses after exposure to two-sided messages than from exposure to their one-sided versions. Chinese, subjects, on the other hand, seem to show the opposite effect, with one-sided messages generating more positive cognitive responses than two-sided messages.

Results from the class 3 favorability scores (i.e., FSGLB3B) add further directional support to the previous findings. Although no significant effect was found for these favorability scores, the means shown in Table 8.25a offer directional support to the hypothesis. Anglo Ss reacted more favorably to 2-sided messages than did their Chinese counterparts. In fact, for the Chinese, it again appears that one-sided messages are favored over their 2-sided versions.

To summarize, significant results were found when the fluency-corrected scores were analysed. However, significance was limited to the self-modified level of cognitive responding and to class 3 fluency-corrected responses. However, the favorability scores at the other levels provided directional support for the hypotheses.

When it came to the analyses of the non-fluency corrected scores, however, results failed to reach significance - although they did provide directional support.

That better results emerge from analysis of the fluency corrected scores should not be surprising. Given that English and Chinese are such different languages, with very different

modes of expression and writing, one should expect differences in the rate at which members of each culture express their thoughts on paper. Consequently, we could expect very different total number of cognitions being written down by members of each culture during the capturing of the cognitive responses. Unless one corrects for this difference, we would expect considerable systematic error in the favorability scores. Correcting for this difference in fluency would tend to yield better results. Secondly, taking the ratio of the total positive minus total negative cognitions divided by the total positive and negative cognitions (as is done in correcting for fluency) achieves some measure of transformation which helps improve the quality of the data for the analyses of variances. These results must also be tempered by the result of the tests carried out with the control group in a later section. The full implication of these results on the tests of the hypotheses will be discussed after presentation of the control group results.

The Impact of Culture and Message Sidedness on the Consequent Variables of
Attitude Toward the Primary Attribute and Overall Brand Evaluation

Hypothesis 4 - Effects of the interaction of Message Sidedness and Culture on Attitudes

Hypothesis 4 posits that members of individualist cultures will be more persuaded by two-sided arguments than will members of collectivist cultures. The former will develop more positive judgments of the brand on the primary attribute(s) as well as a more favorable overall brand evaluation than the latter.

Since the principal object of this study concerns the possible effect of the interaction of message sidedness and culture on the consequent variables of the attitude toward the primary attribute and toward the brand, and since previous research had already established a “causal” relationship between the primary attribute(s) of the brand and overall brand evaluation, univariate tests were deemed adequate to test the hypothesis. (According to Tabachnick and Fidell, 1989, there are not many situations where MANOVA is more powerful than ANOVA and, in fact, the former is often considerably less powerful than the latter. Hence, they recommend avoiding MANOVA “except when there is compelling need to measure several DVs” (1989, p.373).

The critical assumption of the homogeneity of the variance-covariance matrices of the dependent variables of “judgment of the brand on the primary attribute” (MPERFORM) and “overall brand evaluation” (MRATE), was first assessed. The Bartlett-Box F test (3, 70883) for the first dependent variable was found to be 2.29115, $p=.076$; while the Box-F test (3,73162) for the second DV was found to be 1.57877, $p=.193$. Thus, both were non-significant, supporting the assumption of homogeneity of variance among the experimental groups.

A preliminary screening of the covariates was also carried out by examining the correlation of the covariates, namely, need for cognition, self-esteem, scolarity, perceived pressure, and the three dimensions of the locus of control, with the two dependent variables, and with each other. These are shown in Appendix B. As can be seen, none of the covariates had significant correlations with the first dependent variable (MPERFORM). As for the second dependent variable, only need for cognition correlated significantly. Hence, a simple two-way analysis of variance was carried out for the first DV, while an analysis of covariance was carried out for the second. Tables 8.26a reports the means and standard deviations for the first dependent variable, while table 8.26b reports the univariate planned comparisons analysis of variance for the message sidedness by culture experiment.

Table 8.26a
Means and Standard Deviations of
Attitude Toward the Primary Attribute (MPERFORM)

Variable .. MPERFORM						
FACTOR	CODE	Mean	Std. Dev.	N	95 percent Conf. Interval	
CULTURE ENGLISH						
MS	1S	4.667	.850	52	4.430	4.903
MS	2S	4.845	.966	69	4.613	5.077
CULTURE CHINESE						
MS	1S	4.418	.794	47	4.185	4.652
MS	2S	4.492	.668	42	4.284	4.700
For entire sample		4.635	.858	210	4.518	4.752

Table 8.26b
Univariate Planned Comparisons Analysis
of Variance for the Message Sidedness by Culture Experiment
for Attitude Toward the Primary Attribute (MPERFORM)

Source of variation	Degree of freedom	Sum of squares	Mean squares	t Statistic	Probability
Culture (QLANG)	1	4.59	4.59	2.53	0.012*
Message Sidedness (MS)	1	0.81	0.81	1.063	0.289
Culture by Message Sidedness (QLANG BY MS)	1	0.14+	0.14	0.447	0.330 ¹
Within cells (error)	206	147.62		0.72	
Total	209	153.79		0.74	

¹ one-tailed * significant at $p < .05$

As can be seen from the above tables, the hypothesized interaction was not found to be significant. However, there is some directional support from the measures shown in table 8.26a. Although the means for both the Anglo and Chinese Ss were more positive in the case of the Ss exposed to the two-sided ads than for those exposed to the two-sided versions, this differential was

considerably greater for the Anglo Ss than for the HKC. Also of interest is the significant main effect due to culture. Anglo Ss had more positive attitude toward the writing performance of the pen - for both one-sided and two-sided messages - than did their HKC counterparts. This is a finding which merits future investigation.

The results for the second dependent variable, MRATE, are given in tables 8.27a and b. Since an ANCOVA was run, it was also necessary to test for homogeneity of regression (parallelism). As can be seen from table 8.27b, the test was non-significant. Hence, one cannot reject the hypothesis that the slopes of the regression of the DV on the covariate are the same for all the cells of the design.

Table 8.27a
Means and Standard Deviations
of Overall Brand Evaluation (MRATE) and Need for Cognition

Variable .. MRATE

FACTOR	CODE	Mean	Std. Dev.	N	95 percent	Conf. Interval
CULTURE	ENGLISH					
MS	1S	4.264	.769	52	4.050	4.479
MS	2S	4.321	.912	70	4.104	4.539
CULTURE	CHINESE					
MS	1S	4.000	1.015	48	3.705	4.295
MS	2S	3.762	1.018	43	3.448	4.075
For entire sample		4.122	.946	213	3.994	4.250

Variable .. MNFC

FACTOR	CODE	Mean	Std. Dev.	N	95 percent	Conf. Interval
CULTURE	ENGLISH					
MS	1S	.925	.593	52	.760	1.090
MS	2S	.660	.604	70	.516	.804
CULTURE	CHINESE					
MS	1S	.465	.553	48	.305	.626
MS	2S	.467	.570	43	.291	.642
For entire sample		.642	.607	213	.560	.724

Table 8.27b
Univariate Planned Comparisons Analysis
of Covariance for the Message Sidedness by Culture Experiment
for Overall Brand Evaluation (MRATE)

Source of variation	Degree of freedom	Sum of squares	Mean squares	t Statistic	Probability
Parallellism	3	0.70	0.23	0.520	0.844
Within & Residual (error)	205	174.54	0.85		
Regression (covariates)	1	4.20	4.20	2.23*	0.027
Culture (QLANG)	1	11.56	11.56	3.70**	0.000
Message Sidedness (MS)	1	0.77	0.77	0.95	0.341
Culture by Message Sidedness (QLANG BY MS)	1	0.68	0.68	0.89	0.186 ¹
Within cells (error)	208	175.24	0.84		

¹ one-tailed * significant at $p < .01$ ** significant at $p < .001$

Table 8.27b also reveals that the hypothesized interaction effect on overall brand evaluation (MRATE) failed to reach significance. As with the previous dependent variable, however, the means provide some directional support. For instance, Anglo Ss exposed to two-sided messages had a mean of 4.321 while their counterparts exposed to one-sided ads scored 4.264. This was reversed in the case of the Chinese, with one-sided Ss having a means of 4.00, while their counterparts exposed to two-sided messages scored 3.762.

The significant main effect for culture was similar to the previous findings, with the Anglos having a higher global score on this dependent variable compared to their Chinese counterparts.

Also worthy of note is the significant relationship of the need for cognition covariate with culture. Anglo Canadians had higher means on this individual difference variable than the HKC.

Hypothesis H3d:

Hypothesis 3d states that in individualist cultures, self-originated cognitive responses (CAs and SAs) will be the most numerous and most heavily weighted cognitions acting as mediators between two-sided appeals and cognitive structure variables. In contrast, for members of collectivist cultures, self-modified cognitive responses will be more numerous and weighted more heavily than either self-originated or low-level (LLCR) cognitive responses.

To test this hypothesis two approaches were used. In the first method, the total counts of the positive and negative cognitions listed below were computed. Averages for the low-level, self-modified, and self-originated cognitive responses were obtained. Following this, paired t-tests were run to assess the significance of any possible difference between the three pairs. Results are shown in table 8.28 for the Anglo and Chinese group. The second approach involved running path analyses for both the Anglo and Chinese groups for the model shown in Figure 8.1. Although in this model the cognitive responses making up the “constructs” were, in fact, favorability scores corrected for fluency, they nevertheless indicate the relative

importance placed on this particular type of cognitive response. The path coefficients for these models are shown in Figure 8.1.

Table 8.28

Paired T-Tests on the Total Counts of the Low Level, Self-Modified, and Self-Originated Cognitive Responses for the Anglo and Chinese, Two-Sided Experimental Cells

	Low-Level	Self-Modified	Self-Originated
Anglo Sample Means (N=71)	0.9155	4.3099	0.6620
Standard Deviations	1.991	3.097	1.013
Paired t-tests	_____ (t=7.03) ^a _____		_____ (t=9.02) ^a _____
	_____ (t=0.95) _____		
Chinese Sample Means (N=43)	0.1628	4.2093	0.6744
Standard Deviations	0.433	2.867	1.248
Paired t-tests	_____ (t=9.06) ^a _____		_____ (t=7.43) ^a _____
	_____ (t=-2.39) ^b _____		

^a= significant at p<.001 ^b= significant at p<.05

Figure 8.1

Path Analysis of Anglo and Chinese Groups

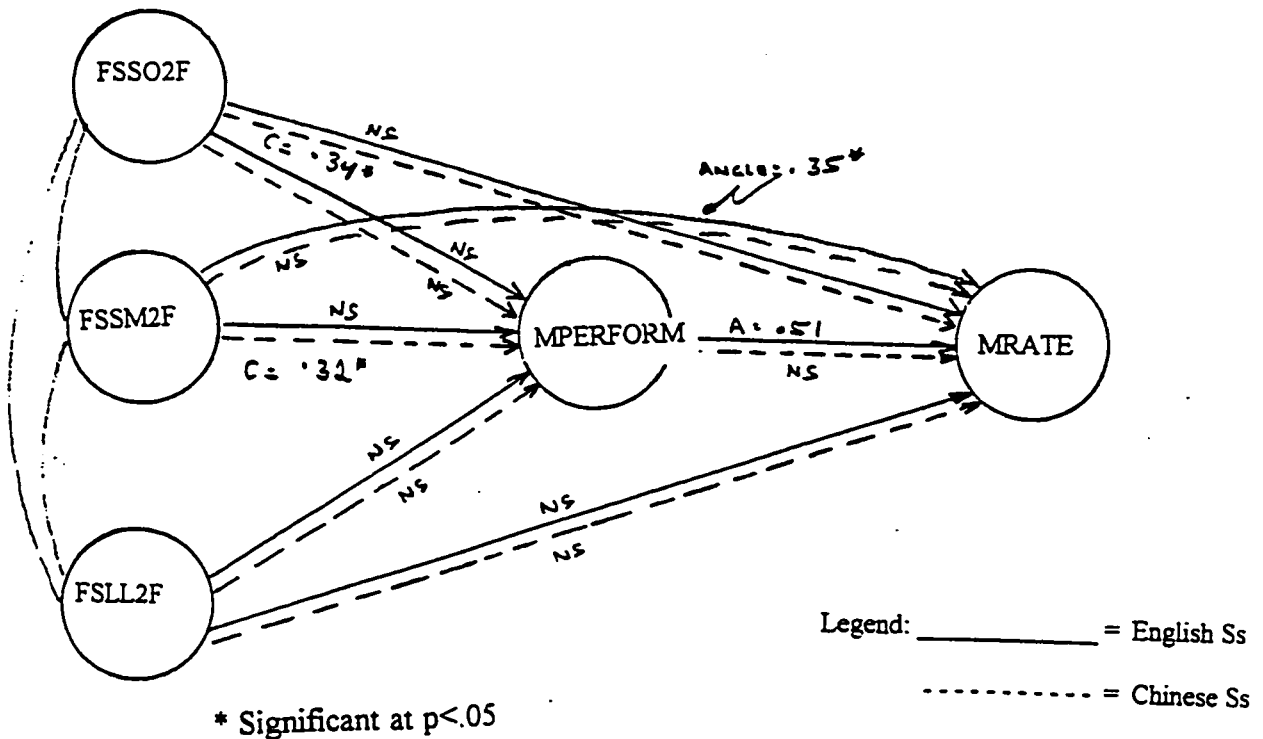


Table 8.28 reveals, first of all, that both the Anglo Ss and Chinese Ss place the heaviest stress on the self-modified CRs although it appears that the Anglos generate somewhat higher numbers of the self-modified thoughts compared to the HKC. The two groups also differ in terms of their relative stress placed on the low-level and self-originated thoughts. The Anglos place about equal stress on these two cognitions as evidenced by the non-significant difference. The HKC, on the other hand, put relatively more stress on the self-originated CRs (.674 vs .163, $t = -2.39$, $p < .05$) contrary to what was hypothesized. The path coefficients shown in Figure 8.1 also support the above findings. The only significant path coefficient leading from a CR favorability score to one of the consequent variables is from the self-modified CR favorability score (FSSM2F) to MRATE. This contrasts with the significant path coefficient for the HKC. Two are significant in this case: One leading from FSSM2F to the consequent variable of MPERFORM (0.32, $p < .05$) and the other leading from the self-originated CR favorability score to MRATE (.34, $p < .05$). These path coefficients, being corrected for fluency, are, in effect, free from the influence of the fluency effect which could give rise to absolute differences in the mean scores.

Thus, the path diagram supports the finding of somewhat higher stress placed by Anglos on the self-modified cognitive response in contrast to the HKC. The latter also stress the self-originated cognitions which is counter to what had been hypothesized. Of course, one should keep in mind that an important limitation is that the number of cognitions in each class may, in fact, reflect an artifact of the coding and judging process used; that is, that Anglo Canadians were used to code the Anglo subjects' cognitions, whereas HKC were used to code the Chinese subjects' cognitions.

Hypothesis 3e:

Hypothesis 3e states that the self-modified cognitive responses generated by collectivists following exposure to two-sided messages, will largely be targeted to the execution or peripheral elements of the ad. That is, these will be more numerous than those targeted to the product or message topic.

The nature of the cognitive response classification system used to test the previous hypotheses precludes a rigorous test of this hypothesis. Hence, the hypothesis should best be considered a research question, and is more exploratory in nature. As may be recalled, the target of some cognitive responses is confounded between the product and/or advertisement. In other words, for some cognitive responses it is very difficult, if not impossible to determine whether the target is the product/message or the advertisement. For this reason, a specific class of cognitive responses was created, the product/ad combination class (COMBIPA; see also, Brucks, Armstrong, and Goldberg). Table 8.29 below gives the percentage of the self-modified cognitive responses that were targeted to the message itself (i.e., the product or product class, ppclass), the execution or source(adsorce) , the product/ad combination (COMBIPA), the self (selftar), other people(otherp), advertising in general (genad), or some other target (othert). Figure 8.2 also graphs the distribution of the targets.

An examination of Figure 8.2 shows that Chinese subjects exposed to the experimental instrument showed higher levels of ad/source targeted cognitions than their Anglo counterparts. In the context control groups, however, the situation was reversed, with the Anglos showing a greater percentage of ad/source targeted cognitions than the Chinese group. Moreover, as can be seen the Chinese Ss generated a considerably higher number of

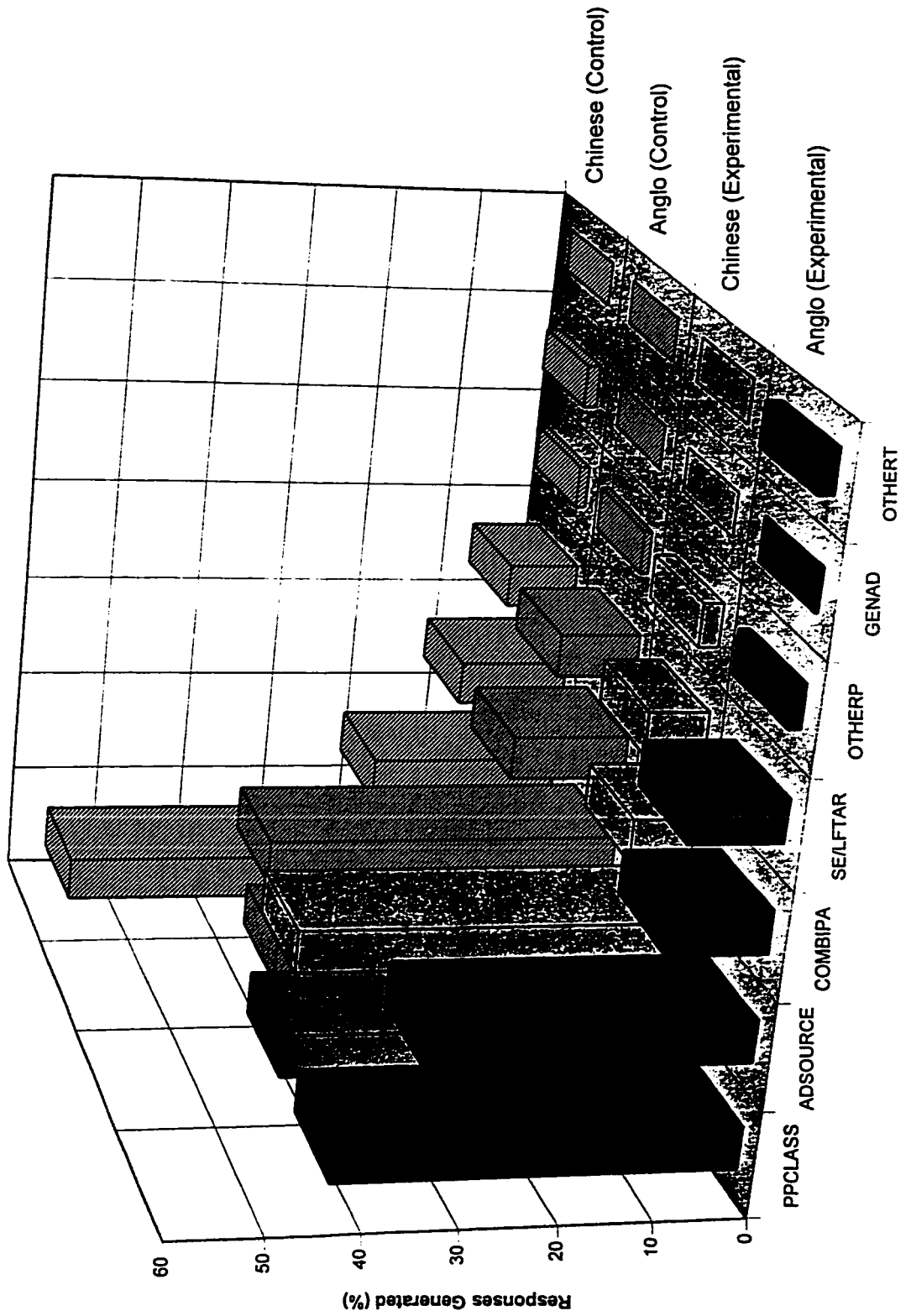
product or product class targeted cognitions. Hence, it would appear that an interaction took place with respect to the execution or level of context in the advertisements.

Table 8.29

		Targets of Self-Modified Cognitive Responses - As a Percentage of Total Cognitive Responses Generated						
		Product/ Product class (the message) PPCLASS	Execution or source ADSOURCE	Product/Ad combination COMBIPA	Self SE/LFTAR	Other People OTHERP	Advertising in general GENAD	Other target OTHERT
Experi- mental Cells	2 Anglo	42.7%	33.8%	10.6%	9.8%	1.2%	.16%	1.7%
	4 Chinese	42.5%	41.9%	6.9%	6.6%	2.2%	0%	0%
Context Control Cells	6 Anglo	37.8%	39.5%	12.9%	9.0%	0.9%	0%	0%
	8 Chinese	56.3%	21.4%	12.1%	7.8%	1.0%	1.5%	0%

Figure 8.2

Targets of Self-Modified Cognitive Responses - As a Percentage of Total Cognitive Responses Generated



8.5 Comparisons Between Experimental and Control Groups

1- Language Controls

In order to exclude language effects as a possible rival explanation, it is necessary to show that the differential effect of one-sided versus two-sided messages is the same whether the experimental stimuli and instruments are administered in the English and Chinese language versions. This comparison will look at both the consequent variables of JPA and OBE and the mediating variables, source honesty, and the various types of cognitive responses. The first two tests carried out consisted of two-way ANCOVAs, with the correspondence score (CORSCORE), and then source honesty (MADVI) as dependent variables. The same covariates were used as with the experimental cells. The results can be found in tables 8.30a,b and 8.31a,b.

Table 8.30a

Means and Adjusted Means for Correspondence Score (CORSCORE)

Chinese Experimental Cells and Chinese Language Control Cells (Cells, 3, 4, 9,10)

Variable	English Language		Chinese Language	
	1 -sided	2-sided	1-sided	2-sided
Correspondence Score (CORSCORE)	4.455	4.586	3.622	3.918
Adjusted Means	4.455	4.588	3.616	3.922
Std. Deviation	(0.747)	(0.896)	(1.004)	(0.899)
N	23	26	47	43

Table 8.30b

Two-Way ANCOVA Summary Table - Correspondence Score as DV

Chinese Experimental Cells and Chinese Language Control Cells

(Cells, 3, 4, 9,10)

Source of variation	Degree of freedom	Sum of squares	Mean squares	F Statistic	Probability
Parallelism	6	6.63	1.10	1.34	0.244
Within & Residual (error)	127	104.66	0.82		
Regression (covariates)	2	1.31	0.65	0.78	0.460
Language	1	17.71	17.71	21.17*	0.000
Message Sidedness (MS)	1	1.51	1.51	1.80	0.182
Language by Message Sidedness	1	0.23	0.23	0.28	0.600
Within cells (error)	133	111.29	0.84		

* significant at $p < .01$

Table 8.31a
Means and Adjusted Means for Source Honesty
Chinese Experimental Cells and Chinese Language Control Cells
Cells 3,4 9, 10

Variable	English Language		Chinese Language	
	1-sided	2-sided	1-sided	2-sided
Source Honesty (MADVI)	4.191	4.240	3.742	3.833
Adjusted Means	4.210	4.231	3.724	3.841
Std. Deviation	(0.771)	(0.865)	(0.875)	(0.635)
N	23	26	47	43

Table 8.31b
Two-Way ANCOVA Summary Table - Source Honesty as DV
Chinese Experimental Cells and Chinese Language Control Cells
Cells 3,4 9, 10

Source of variation	Degree of freedom	Sum of squares	Mean squares	F Statistic	Probability
Parallelism	6	2.13	0.35	0.58	0.748
Within & Residual (error)	127	78.01	0.61		
Regression (covariates)	2	2.69	1.34	2.23	0.112
Language	1	5.75	5.75	9.54*	0.002
Message Sidedness (MS)	1	0.15	0.15	0.25	0.621
Language by Message Sidedness (QLANG BY MS)	1	0.07	0.07	1.12	0.730
Within cells (error)	133	80.14	0.60		

* significant at $p < .01$

As was seen in Table 8.11, the one-way analysis of covariance yielded a significant effect due to culture on the correspondence score. The mean score for the Anglo Ss exposed to a two-sided message was 4.443, whereas that of the Chinese sample was 3.918 ($t=2.60$, $p<.05$). Table 8.30b reveals that Chinese Ss exposed to the mock ad and questionnaires in English had higher mean values of CORSCORE than the Chinese Ss exposed to the ad and questionnaire in their native language. The mean values for the English language control groups were similar to the values for the English experimental Ss. In fact, the Chinese Ss who were exposed to the English instrument had somewhat higher mean values than the Anglo experimental Ss who had been exposed to the same ads and reported earlier - 4.586 versus 4.443, respectively.

An anova was also carried out on cells 2 and 10, comparing the Anglo subjects exposed to the two-sided ad and the Chinese subjects exposed to the same English ad and the questionnaire in English. Self-esteem and scholasticity were entered as covariates. No significant difference was found ($F(1,95) = .10$, $p=.336$). As for the tests with source honesty, we can see the same effect as previously found in tables 8.12a and b. In these tables, a significant cultural main effect was found, so that Anglo Ss exposed to either one or two-sided ads had higher mean levels on source honesty than their Chinese counterparts. In the present test, a similar significant main effect was found for language, with Chinese subjects exposed to the English instrument having higher mean values for source honesty than the Chinese (experimental) subjects who had been exposed to the instruments in Chinese.

Tests for MPERFORM and MRATE for
Chinese Experimental Cells and Chinese Language Control Cells

An ANCOVA was performed on Chinese Experimental Cells and Chinese Language Control Cells (CELLS 3,4,9, 10) with MPERFORM as the DV. The only significant effect was due to language (a main effect), with $F(1,37) = 10.26, p < .001$. The means can be found in table 8.32 below.

Table 8.32

Means and Adjusted Means for MPERFORM
Chinese Experimental Cells and Chinese Language Control Cells
Cells 3,4 9, 10 Chinese Subjects Only

Variable	English Language		Chinese Language	
	1-sided	2-sided	1-sided	2-sided
MPERFORM	4.971	4.808	4.418	4.492
Std. Deviation	(0.784)	(0.817)	(0.794)	(0.668)
N	23	26	47	42

A two-way ANOVA was also carried out with MRATE. Similar to MPERFORM, the only significant effect was due to the main effect of "Language" $F(1,139) = 6.65, p < .05$. The means are given in table 8.33 below.

Table 8.33

Means and Adjusted Means for MRATE

Chinese Experimental Cells and Chinese Language Control Cells

Cells 3,4 9, 10

Variable	English Language		Chinese Language	
	1-sided	2-sided	1-sided	2-sided
MRATE	4.478	4.154	4.000	3.762
Std. Deviation	(0.935)	(0.686)	(1.015)	(1.018)
N	23	26	48	43

The last important test which was carried out with the language control groups, was an analysis of covariance with CORSCORE as dependent variable, with self esteem and scolarity as dependent variables for cells 2 and 10. That is, a comparison was made of this variable between the English two-sided experimental cell, and the Chinese group exposed to the two-sided experiment in English. No significant difference was found $F(91,95) = .10$, $p=.326$.

The results for MPERFORM and MRATE show a main effect for language similar to the main effect for culture found earlier for these dependent variables (compare tables 8.32 and 8.33 with tables 8.26a,b and 8.27a,b, respectively).

Comparisons carried out with the various classes of fluency-corrected, cognitive response favorability scores as dependent variables.

Table 8.34a
Means of the Class 1, Fluency-Corrected Cognitive Responses
Chinese Experimental Cells and Chinese Language Control Cells
Cells 3,4 9, 10

Variable .. FSLL1F					
FACTOR	CODE	Mean	Std. Dev.	N	
LANGUAGE ENGLISH					
MS	1S	.130	.344	23	
MS	2S	.269	.432	26	
LANGUAGE CHINESE					
MS	1S	.104	.309	48	
MS	2S	.116	.324	43	

Variable .. FSSM1F					
FACTOR	CODE	Mean	Std. Dev.	N	
LANGUAGE ENGLISH					
MS	1S	.203	.680	23	
MS	2S	-.100	.771	26	
LANGUAGE CHINESE					
MS	1S	.010	.825	48	
MS	2S	-.323	.714	43	

Variable .. FSSO1F					
FACTOR	CODE	Mean	Std. Dev.	N	
LANGUAGE ENGLISH					
MS	1S	.000	.302	23	
MS	2S	-.038	.344	26	
LANGUAGE CHINESE					
MS	1S	-.104	.371	48	
MS	2S	-.070	.402	43	

Table 8.34b

Multivariate Planned Comparisons Analysis of Variance
for the Message Sidedness by Culture Experiment
Class 1 Fluency-Corrected Cognitive Response Indices as Dependent Variables
Chinese Experimental Cells and Chinese Language Control Cells
Cells 3,4 9, 10

Source of Variation	Multivariate				Univariate			
	Wilk's Lambda	Df	F	(Prob)	DF	F	P(Probability)	
						F _{LL1F}	F _{SSM1F}	F _{SSO1F}
Message Sidedness (MS)	.94	3	2.96	(.035)	1,136	1.52(.220)	5.58(.020)	0.000(.975)
Language	.97	3	1.47	(.227)	1,136	2.14(.146)	2.38(.125)	1.09 (.299)
Interaction (Language by MS)	.99	3	0.459	(.711)	1,136	1.07(.303)	0.013(.909)	0.314(.576)

* Significant at $p < .05$

From the above results, one can see a significant message sidedness effect. For the Chinese, the two-sided ads in either the English or Chinese language had less favorable FSSM1F scores than for the Ss exposed to the one-sided ads - either in the English language or in Chinese. This supports the earlier findings. The MANOVA summary table also shows that the Language main effect and Interaction are not significant, thus showing that, for this dependent variable at least, the earlier effects are not due to the language effects, but rather to the cultural effect.

Table 8.35a
 Means of the Class 2, Fluency-Corrected Cognitive Responses
 Chinese Experimental Cells and Chinese Language Control Cells
 Cells 3, 4 9, 10

Variable .. FSLL2F

FACTOR	CODE	Mean	Std. Dev.	N
QLANG	ENGLISH			
MS	1S	.130	.344	23
MS	2S	.269	.432	26
QLANG	CHINESE			
MS	1S	.104	.309	48
MS	2S	.116	.324	43

Variable .. FSSM2F

FACTOR	CODE	Mean	Std. Dev.	N
QLANG	ENGLISH			
MS	1S	-.196	.591	23
MS	2S	-.198	.720	26
QLANG	CHINESE			
MS	1S	-.165	.804	48
MS	2S	-.483	.694	43

Variable .. FSSO2F

FACTOR	CODE	Mean	Std. Dev.	N
QLANG	ENGLISH			
MS	1S	-.174	.491	23
MS	2S	-.077	.392	26
QLANG	CHINESE			
MS	1S	-.250	.526	48
MS	2S	-.209	.559	43

Table 8.35b
 Multivariate Analysis of Variance
 for the Message Sidedness by Culture Experiment
 Class 2 Fluency-Corrected Cognitive Response Indices as Dependent Variables
 Chinese Experimental Cells and Chinese Language Control Cells
 Cells 3,4, 9,10

Source of Variation	Multivariate				Univariate			
	Wilk's Lambda	Df	F	(Prob)	DF	P(Probability)		
						FSSL2F	FSSM2F	FSSO2F
Message Sidedness (MS)	.96	3	1.62	(.187)	1,136	1.52(.220)	1.55(.215)	0.580(.448)
Language	.98	3	1.12	(.345)	1,136	2.14(.146)	0.97(.325)	1.33 (.251)
Interaction (Language by MS)	.98	3	0.686	(.562)	1,136	1.07(.303)	1.51(.221)	0.097(.756)

* Significant at $p < .05$

For the Class 3 favorability score, FSGLB3F, neither the main effects or interaction were significant.

With respect to the comparisons carried out with the various classes of fluency-corrected cognitive responses as dependent variables, the findings contrast sharply with those just cited for CORSCORE, source honesty, MPERFORM, and MRATE appear. For Class 2 and Class 3 CR favorability scores, no significant CR favorability scores were found. This is in line with the predictions made in chapter 7. An unexpected finding, however, was a significant main effect

due to message sidedness for the self-modified CR favorability scores for the Class 1 cognitive responses. As can be seen in table 8.34b, a significant multivariate main effect and univariate effect for FSSMIF was found. Thus, for both the Chinese Ss exposed to the instruments in the English language, and those exposed in their native Chinese, one-sided messages generated more favorable cognitive responses. This supports the earlier findings with the experimental cells.

How can the divergent findings between the antecedent/consequent variables (i.e., CORSCORE, source honesty, MPERFORM, and MRATE) be reconciled with the findings on the favorability of the cognitive responses? Take CORSCORE as an example. Two possibilities arise: It may be that the cultural effect of the Chinese arises because of language differences and the operation of the Sapir-Whorf hypothesis. Thus, the cognitive processes that occur among the Chinese are embodied in their language. When they use a foreign language, say English, the cognitive processes change, reflecting the logic system embodied in the foreign language.

The second possibility is that a form of cross-cultural accommodation (Bond and Yang, 1982) may have occurred, so that the subjects exposed to the English ads and English questionnaires may have reacted to them in a more "Western" direction. There is some evidence of this, when one looks at the means for the Chinese in Table 8.30a. If we compare this mean with what had been found earlier with experimental groups, one observes that the Chinese language control group (English instruments) had even higher values on this variable than the English themselves.

According to Bond and Yang, cross-cultural accommodation tends to be more likely when the issues are not important to the subject. When the issues are important, on the other hand, *ethnic affirmation* occurs, with the result that the Ss answer in a more Chinese direction.

hand, *ethnic affirmation* occurs, with the result that the Ss answer in a more Chinese direction. The earlier results on the perceived involvement level of the Ss, with respect to the product would imply that the advocacy issue used in this study (a new, high tech, and high performing pen) is not seen as very important to the subjects. Hence, one could expect cross-cultural accommodation to take place.

The findings with respect to the cognitive responses, on the other hand, unequivocally show that a cultural effect is taking place. The cross-cultural accommodation phenomenon described by Bong and Yang (1982) appears to be instigated by the cultural cues in the questionnaire and in the setting of the experimentation. The dependent variables of correspondent inferences, source honesty, MPERFORM, and MRATE, were all captured using specific items on the structured portion of the questionnaires. On this section, one would expect a significantly higher level of cross-cultural accommodation. Cognitive responses, on the other hand, are not dependent on answering any particular, explicit question on a questionnaire. Cognitive responses are self-generated, and may reflect a deeper cognitive thinking, and should be less affected by language and grammar, or the experimental setting.

Comparisons With the "Context" Control Groups

In the first part of these comparisons, the Chinese experimental cells (cells 3,4) were compared with the Chinese subjects who had been exposed to the "context control" ads. In all other respects, the instruments were the same and in the Chinese language.

The first set of tests consisted of MANOVAs carried out with the Class 2 and Class 3 favorability scores. The results appear in Tables 8.36a,b and 8.37a,b. As one can see, the interaction of context with message sidedness proved significant for the self-modified favorability score (Tables 8.36a and b). None of the other main effects were significant. In effect, the interaction was of the cross-over type, and revealed that, for the experimental Ss (i.e., those exposed to the experimental ads), one-sided messages were more favorable than for those Ss exposed to two-sided messages. However, this was reversed for the subjects exposed to the "no-context" version of the ads. In other words, an interaction occurred with the degree of context. This effect was repeated for the Class 3 favorability scores shown in Tables 8.37a and 8.37b. These results were unexpected.

Table 8.36a

Means of the Class 2, Fluency-Corrected Cognitive Responses

Chinese Experimental Cells and Chinese Context Control Cells

Cells 3,4 7 8

Variable .. FSSL2F

FACTOR	CODE	Mean	Std. Dev.	N
CONTEXT(MAD)	EX			
MS	1S	.104	.309	48
MS	2S	.116	.324	43
CONTEXT(MAD)	CC			
MS	1S	.094	.296	32
MS	2S	.269	.452	26

Variable .. FSSM2F

FACTOR	CODE	Mean	Std. Dev.	N
CONTEXT(MAD)	EX			
MS	1S	-.165	.804	48
MS	2S	-.483	.694	43
CONTEXT(MAD)	CC			
MS	1S	-.338	.696	32
MS	2S	.009	.776	26

Variable .. FSSO2F

FACTOR	CODE	Mean	Std. Dev.	N
CULTURE(MAD)	EX			
MS	1S	-.250	.526	48
MS	2S	-.209	.559	43
CULTURE(MAD)	CC			
MS	1S	-.438	.564	32
MS	2S	-.044	.603	26

Table 8.36b
 Multivariate Planned Comparisons Analysis of Variance
 for the Message Sidedness by Culture Experiment
 Class 2 Fluency-Corrected Cognitive Response Indices as Dependent Variables
 Chinese Experimental Cells and Context Control Cells
 CELLS 3,4,7,8

Source of Variation	Multivariate					Univariate		
	Wilk's Lambda	Df	F	(Prob)	DF	FSL2F	FSSM2F	FSSO2F
Message Sidedness (MS)	.95	3	2.51	(.061)	1,145	2.68(.104)	0.013(.909)	5.34(.022)*
Context	.98	3	0.930	(.428)	1,145	1.55(.216)	1.600(.208)	0.013(.908)
Interaction Language by MS)	.94	3	2.878	(.038)	1,145	2.03(.156)	6.98(.009)	3.525(.062)

* Significant at $p < .05$

Table 8.37a,
 Analysis of Variance of the Class 3, Fluency-Corrected Favorability Scores
 Chinese Experimental Cells and Chinese Context Control Cells - Cells 3,4,7,8

Variable .. FSGLB3F

FACTOR	CODE	Mean	Std. Dev.	N
CONTEXT(MAD) EX				
MS	1S	-0.158	0.805	48
MS	2S	-0.453	0.666	43
CONTEXT(MAD) CC				
MS	1S	-0.409	0.656	32
MS	2S	0.074	0.755	26

Table 8.37b
Univariate Analysis of Variance
for the Message Sidedness by Culture Experiment - Class 3 Cognitive Response
Fluency-Corrected Favorability Score as Dependent Variable (FSGLB3F)
Chinese Experimental Cells and Chinese Context Control Cells
(Cells, 3,4,7,8)

Source of variation	Degree of freedom	Sum of squares	Mean squares	t Statistic	Probability
Context (MAD)	1	0.66	0.66	1.250	0.264
Message Sidedness (MS)	1	0.31	0.31	0.59	0.445
Context by Message Sidedness (MAD BY MS)	1	5.32	5.32	10.06	0.002*
Within cells (Error)	145	76.67	0.53		
Total	148	82.37	0.56		

* significant at $p < .01$

Comparisons With Corscore as Dependent Variable

From Tables 8.38a and 8.38b, one observes that only the interaction, and the covariate regression effects were significant. What it shows is that, for the experimental groups, those exposed to two-sided messages generated a higher correspondence score (CORSCORE) in contrast to those exposed to one-sided messages. a cross-over occurred for the "context-control" group, with the one-sided Ss generating higher levels of "internal" attributions compared to those exposed to two-sided ads.

It had been anticipated that providing a greater context in an ad, as was ostensibly done with the experimental ads would provide a greater number of situational cues to allow the Chinese to attribute the disclaiming behavior to "external" reasons. What is found in these results, is that the Ss exposed to the two-sided experimental message produce less external (i.e., a higher CORSCORE) than for those subjects exposed to the two-sided "no-context" versions.

There was thus the possibility that the differential effect of two- versus one-sided messages for the Chinese was due to the lack of "contextual" cues. It should be noted, however, that even in the "no-context" control groups, a minimal amount of contextual information had to be provided (simply to ensure that the *copy* in the experimental ads and context control ads remained the same, in order to avoid introducing another confound). An example of the context that remained constant in both types of ads were, for instance, the fact that the manufacturer had over 75 years of experience in pen manufacturing, and the fact that it was a well known manufacturer). Thus, the "no-context" group would better be defined as a "low-context" group.

When we compare the Anglo subjects exposed to a two-sided context-control ad, with their Chinese counterparts also exposed to their Chinese context-control ad, we still find a significant difference in terms of the level of CORSCORE - with the Anglo group scoring 4.71 versus 3.476 for the Chinese group.

Table 8.38a
Means and Adjusted Means for CORSCORE
Chinese Experimental Cells and Chinese Context Control Cells
Cells 3,4 7,8

Variable	With context		Without context	
	1-sided	2-sided	1-sided	2-sided
CORSCORE	3.622	3.918	3.876	3.460
Adjusted Means	3.580	3.955	3.848	3.493
Std. Deviation	(1.00)	(0.899)	(0.934)	(1.047)
N	48	43	32	26

Table 8.38b
Two-Way ANCOVA Summary Table
Cells 3,4 7,8 Chinese Subjects Only
CORSCORE as DV

Source of variation	Degree of freedom	Sum of squares	Mean squares	F Statistic	Probability
Parallelism	6	7.59	1.26	1.42	0.212
Within & Residual (error)	136	121.24	0.89		
Regression (covariates)	2	5.87	2.94	3.24	0.042
Context	1	0.33	0.33	0.36	0.550
Message Sidedness (MS)	1	0.00	0.00	0.00	0.950
Context by Message Sidedness (MAD BY MS)	1	4.66	4.66	5.14*	0.025
Within cells (error)	142	128.83	0.91		

* Significant at $p < .05$

The results of a two-way ANOVA with MRATE as the DV reveals a significant main effect due to context, with no other significant effects. This, in fact, may provide an important clue for the earlier finding that two-sided messages were more efficient than one-sided ones for the "context-control" group. The brand was evaluated more favorably in both the one-sided and two-sided conditions. There is thus a strong likelihood that an interaction may have occurred between level of context, message sidedness, and attitude toward the ad. Simply on the basis of the earlier finding that with the context-control two-sided subjects generated more "external" attributions, one would expect two-sided ads to be more unfavorable. After all, at least in North America, two-sided messages owe their superior performance to the higher levels of internal attributions (Smith and Hunt, 1978). With context control ads, there is a drop in the level of internal attributional activity for two-sided messages as compared to the experimental two-sided ads. Thus, on this basis we would have expected a poorer performance for these appeals. This is an interesting topic for future research.

As for source honesty, and MPERFORM, none of the main effects or interactions reached significance.

Table 8.39a
Means and Adjusted Means for CORSCORE
Cells 6,8

Variable	Anglo 2-sided	Chinese 2-sided
Correspondence Score (CORSCORE)	4.711	3.476
Std. Deviation	(0.957)	(1.047)
N	26	26

Table 8.39b
Two-Way ANCOVA Summary Table
Cells 6,8
CORSCORE as DV

Source of variation	Degree of freedom	Sum of squares	Mean squares	F Statistic	Probability
Regression (covariates)	2	5.00	2.50	2.65	0.081
Culture	1	11.36	11.36	12.03*	0.001
Within cells (error)	48	45.31	0.94		

* significant at $p < .01$

Table 8.40a
Means and Adjusted Means for MRATE
Cells 3,4 7,8 Chinese Subjects Only

Variable	With context		Without context	
	1-sided	2-sided	1-sided	2-sided
MRATE	4.000	3.762	4.219	4.250
Std. Deviation	(1.015)	(1.018)	(0.888)	(1.098)
N	48	43	32	26

Table 8.40b
Two-Way ANOVA Summary Table
Cells 3,4 7, 8 Chinese Subjects Only
MRATE as DV

Source of variation	Degree of freedom	Sum of squares	Mean squares	F Statistic	Probability
Context	1	4.39	4.39	4.35*	0.039
Message Sidedness (MS)	1	0.38	0.38	0.37	0.542
Context by Message Sidedness (MAD BY MS)	1	0.64	0.64	0.63	0.428
Within cells (error)	145	146.46	1.01		

* significant at $p < .05$

Tests of Controls Comparing the Anglo Experimental Cells with the Anglo Context Control Cells - Cells 1,2,5,6

None of the analyses of variance with the antecedent variables and consequent variables yielded significant main effects or interactions. With respect to the Manovas carried out on the favorability scores, we find some significant multivariate effects, but no univariate effects. Stevens (1986) points out that it is possible to have a significant multivariate effect, but no significant univariate effect. What occurs in these cases, is that there may be significant complex linear combinations of the dependent variables.

Also, it should be noted, neither source honesty, MPERFORM, or MRATE has statistically significant main or interactions effect. Only the regression with MNFC and MPRESS for source honesty were significant.

On the whole, however, the findings with these control groups are as predicted, with no significant differences found between the experimental and context-control cells.

Table 8.41a
Means and Adjusted Means for CORSCORE
Cells 1,2,5,6 Anglo Subjects Only

Variable	With context		Without context	
	1-sided	2-sided	1-sided	2-sided
CORSCORE	4.286	4.443	4.201	4.711
Adjusted Means	4.265	4.432	4.222	4.711
Std. Deviation	(1.155)	(0.950)	(0.934)	(0.957)
N	52	71	26	26

Table 8.41b
Two-Way ANCOVA Summary Table
Cells 1,2,5,6
CORSCORE as DV

Source of variation	Degree of freedom	Sum of squares	Mean squares	F Statistic	Probability
Regression (covariates)	2	1.21	0.61	0.58	0.559
Context (MAD)	1	0.51	0.51	0.49	0.484
Message Sidedness (MS)	1	4.01	4.01	3.86	0.051
Context by Message Sidedness (MAD by MS)	1	0.96	0.96	0.92	0.339
Within cells (error)	168	174.40	1.04		

Table 8.42a
Means of the Class 1, Fluency-Corrected Cognitive Responses
Cells 1,2,5,6

Variable .. FSLL1F

FACTOR	CODE	Mean	Std. Dev.	N
MAD	EX			
MS	1S	.298	.457	52
MS	2S	.217	.465	71
MAD	EX			
MS	1S	.321	.466	26
MS	2S	.207	.392	26

Variable .. FSSM1F

FACTOR	CODE	Mean	Std. Dev.	N
MAD	EX			
MS	1S	-.147	.748	52
MS	2S	-.032	.761	71
MAD	CC			
MS	1S	-.115	.816	26
MS	2S	.077	.796	26

Variable .. FSSO1F

FACTOR	CODE	Mean	Std. Dev.	N
MAD	EX			
MS	1S	-.206	.398	52
MS	2S	-.038	.493	43
MAD	CC			
MS	1S	-.038	.445	26
MS	2S	.000	.400	26

Table 8.42b
 Multivariate Planned Comparisons Analysis of Variance
 for the Message Sidedness by Culture Experiment
 Class 1 Fluency-Corrected Cognitive Response Indices as Dependent Variables
 CELLS 1,2,5,6

Source of Variation	Multivariate					Univariate		
	Wilk's Lambda	Df	F (Prob)	DF	F	P(Probability)	F	P
Message Sidedness (MS)	.95	3	2.88 (.037)	1,171	1.67 (.198)	1.447(.231)	1.94 (.165)	
Context	.99	3	0.741 (.529)	1,171	0.006(.936)	0.303(.583)	1.911 (.169)	
Interaction (Context by MS)	.99	3	0.334 (.801)	1,171	0.05 (.828)	0.09 (.764)	0.767(.382)	

* Significant at $p < .05$

Table 8.43a
 Means of the Class 2, Fluency-Corrected Cognitive Responses
 Cells 1,2,5,6

Variable .. FSL2F

FACTOR	CODE	Mean	Std. Dev.	N
MAD	EX			
MS	1S	.317	.505	52
MS	2S	.201	.483	71
MAD	EX			
MS	1S	.331	.470	26
MS	2S	.168	.457	26

Variable .. FSSM2F

FACTOR	CODE	Mean	Std. Dev.	N
MAD	EX			
MS	1S	-.402	.750	52
MS	2S	-.300	.733	71
MAD	EX			
MS	1S	-.311	.747	26
MS	2S	-.245	.660	26

Variable .. FSSO2F

FACTOR	CODE	Mean	Std. Dev.	N
MAD	EX			
MS	1S	-.321	.503	52
MS	2S	-.150	.580	71
MAD	EX			
MS	1S	-.115	.588	26
MS	2S	.000	.490	26

Table 8.43b
 Multivariate Planned Comparisons Analysis of Variance
 for the Message Sidedness by Culture Experiment
 Class 2 Fluency-Corrected Cognitive Response Indices as Dependent Variables
 CELLS 1,2,5,6

Source of Variation	Multivariate					Univariate		
	Wilk's Lambda	Df	F (Prob)	DF	FSSL2F	P(Probability)		
						FSSM2F	FSSO2F	
Message	.94	3	3.81 (.011)	1,171	3.01(.084)	0.478(.490)	2.49 (.117)	
Sidedness (MS)								
Context	.97	3	1.568(.199)	1,171	0.01(.908)	0.364(.547)	3.848 (.051)	
Interaction Language by MS)	.999	3	0.047(.986)	1,171	0.08(.777)	0.23 (.879)	0.093 (.760)	

* Significant at $p < .05$

Table 8.44a
 Means of the Class 3 Cognitive Response,
 Fluency-Corrected, Favorability Scores (FSGLB3F)
 Cells 1,2,5,6

Variable .. FSGLB3F

FACTOR	CODE	Mean	Std. Dev.	N
MAD	EX			
MS	1S	-0.357	0.749	52
MS	2S	-0.286	0.737	71
MAD	CC			
MS	1S	-.183	0.762	26
MS	2S	-.208	0.689	26

Table 8.44b

Univariate Analysis of Covariance with MNFC as covariate
for the Message Sidedness by Culture Experiment - Class 3 Cognitive Response
Fluency-Corrected Favorability Score as Dependent Variable (FSGLB3F) (Cells, 1,2,5,6)

Source of variation	Degree of freedom	Sum of squares	Mean squares	F Statistic	Probability
Parallelism	3	1.35	0.45	0.85	0.466
Within & Residual (error)	167	88.14	0.53		
Regression (covariates)	1	3.53	3.53	6.70*	0.01
Context (MAD)	1	0.52	0.52	0.98	0.323
Message Sidedness (MS)	1	0.00	0.00	0.00	0.971
Context by Message Sidedness (MAD BY MS)	1	0.00	0.00	0.00	0.962
Within cells (Error)	170	89.49	0.53		
Total	174	93.71	0.54		

* Significance $p < .05$

8.6 Summary and Conclusions

Hypothesis 1a was supported with the experimental groups. Anglos subjects generated significantly higher levels of internal attributions than their Chinese counterparts. However, when we compared the English experimental group with the Chinese language control group exposed to the instruments in English, no significant difference occurred with their Anglo counterparts. Two possible reasons were cited for this effect: The validity of the Sapir-Whorf hypothesis or the “cross-cultural accommodation” effect. Further research will have to be carried out to determine which of these two factors is operating to create the effect.

Hypothesis 1b was not supported - either with the experimental groups or the control groups, two-sided messages were not perceived to be more honest or credible than their one-sided counterparts. This, in effect, is in line with the findings of Hastak and Park (1990) who had found no difference in the two types of appeals. Significant main effects due to culture were found, with the Chinese consistently finding a lower degree of source honesty in the ads than the Anglo Ss. One possible explanation for this effect is the relatively low level of product involvement of the subjects. This may have caused all subjects - both Anglos and Chinese - to focus more on peripheral elements of the ads - and not focus on the embedded disclaimers. Hypothesis H2a and H2b also failed to be supported. No significant differences were found either in "source-message orientation" or in the ability to "recognize the two-sided feature of an ad." The most plausible reason for this effect may lie in the instructions given to the students prior to the experiment. Subjects had been instructed to evaluate the prototype ad and, consequently, their natural selective processes may have been overridden by their desire to satisfy the requirements of the researcher.

Hypotheses 3a, 3b, and 3c dealt with the thoughts generated by the subjects following exposure to the ads. For all the fluency corrected cognitive response favorability scores, including the expanded set which included source targeted thoughts, there were significant multivariate effects due to the hypothesized interaction and due to the culture main effect.

The effect due to the self-modified cognitive responses (as hypothesized in HC) was consistently significant. This showed that Anglos exposed to the two-sided ads generated more favorable CRs than their counterparts exposed to the one-sided appeals. The reverse occurred for the Chinese, with one-sided messages generating more favorable CRs. There

was, however, directional support for the low-level and self-originated cognitive responses. For instance, for the low-level cognitive responses, Anglos generated more favorable cognitions for the one-sided appeal than for the two-sided appeals.

Hypothesis 3a had hypothesized that for members of collectivist cultures, no significant differences should appear in the favorability of the lower-level, the self-modified, or the self-originated cognitive responses. In effect, this hypothesis was rejected in the sense that if we look at the self-modified cognitive responses, one-sided messages actually did better than the two-sided appeals in the favorability scores. This was somewhat unexpected. In fact, the findings show that for the Chinese, one-sided messages appear to be more effective than two-sided messages in attenuating counterargumentation or increasing support argumentation.

Another important finding is the significant culture multivariate main effect that was found for all classes of cognitive responses - including the *raw scores*. In contrast to the significant interaction, where it was the self-modified cognitive responses which reached significance, in the case of the culture main effect, it was the low-level cognitive responses which reached significance. What this tells us, is that the favorability scores of the Chinese which originated with the message or product (i.e., were simply repetitions of the message or product elements of the ads) were less favorable than their Anglo counterparts. In other words, the Chinese subjects seemed to have focused more on the negative features of the message or product and rehearsed these.

Hypothesis H3d was not supported. Both the Anglo Ss and Chinese Ss place the most weight on the self-modified cognitive responses. The evidence pointed to somewhat higher

numbers of self-modified thoughts generated by the Anglos in comparison to the HKC.

Examining Table 2.29 or Fig. 8.2 reveals that at least for the experimental ads which include a graphic design and are meant to provide more context, the Chinese Ss do, indeed, produce a larger percentage of execution or source targeted thoughts in contrast to their Anglo counterparts. However, for the context-control ads, the Chinese appear to generate less ad/source targeted thoughts than the Anglos; whereas they generate considerably more product or product class targeted thoughts.

For the test of Hypothesis H4, the hypothesized interaction was not found to be significant - either for MPERFORM or for MRATE. However, there is some directional support for the hypothesis in the case of both dependent variables. Although the means for both the Anglo and Chinese Ss were more positive in the case of the Ss exposed to the two-sided ads than for those exposed to the two-sided versions, this differential was considerably greater for the Anglo Ss than for the HKC. Also of interest is the significant main effect due to culture. Anglo Ss had more positive attitude toward the writing performance of the pen, and for the overall brand evaluation - for both one-sided and two-sided messages - than did their HKC counterparts. This is a finding which merits future investigation.

CHAPTER 9

CONCLUSIONS, IMPLICATIONS, AND AREAS FOR FUTURE RESEARCH

9.1 Conclusions

With the increase in global marketing activities brought on in part by technological developments in transportation and communication, there is an increasing need for models of cross-cultural communication and advertising. The aim of this research has been to make a contribution toward such a model, by examining the ways that culture moderates the principal processes of persuasion.

Recent developments in social cognition and cross-cultural psychology have yielded new ways of understanding how culture operates on psychological processes. One of the fundamental dimensions of culture, individualism-collectivism has been related to a number of psychological processes. Foremost, is the fact that this dimension appears to influence how a person's "self" is defined. Collectivist subjects, for instance, are believed to define the "self" in terms of members of their in-groups; whereas for members of individualist cultures, the self is defined more in terms of personal characteristics and factors intrinsic to the person. These differences were also believed to influence the way certain attributions are made, and the formation of cognitive responding during the reception of a persuasive message.

Based on these theoretical foundations, the present author posited a number of hypotheses meant to test the above moderating effects and to test their effects on a well known type of message strategy - the two-sided message. This form of message was selected

in part because it had already been well researched in North America, so that the mediating mechanisms and operating parameters were well known; secondly, because cross-cultural work had already been done with this strategy and results were conflicting; and finally because, the findings on this message form effect could shed light on other similar message strategies.

In essence, what this study set out to show, was that members of collectivist societies, in particular Eastern cultures, would not have the same propensity to attribute the revelation of a disclaimer in a two-sided ad, to the advertiser's honesty as would members of individualist subjects. The lesser emphasis placed on the self by the former, also meant that the cognitive responses that they generated during reception of a two-sided ad would not be as favorable as those of their individualist counterparts. In sum, during the reception of one- or two-sided messages, collectivists should not react more favorably to the two-sided messages - as most North American studies have shown for individualists. The variables examined were classified (1) as antecedent variables (degree of internal attribution, source honesty, source-message orientation, and ability to detect the disclaimer); (2) as mediating variables (the three levels of the CR favorability scores); and (3) as consequent variables (attitude toward the primary attribute; overall attitude toward the brand).

Among the antecedent variables, only the variable measuring the degree of internal attribution was found significant (CORSCORE). As for the consequent variables, although no statistical significance was found, there was directional support. Finally, some of the favorability scores of the mediating variables were found to be significant.

That some of the antecedent variables (e.g., source honesty) and consequent variables (e.g., overall attitude toward the brand) failed to reach significance can be explained by the fact that two-sided messages will be effective only when a set of critical conditions are met. Conditions such as proper level of involvement, the right attitude toward the ad, negatively correlated primary and secondary attributes, etc. Thus, two-sided ads will be effective, but only in a relatively narrow "bandwidth."

Notwithstanding the failure to obtain significant results for several hypotheses, the findings which were proven significant can help us better understand the mediating processes that receivers carry out in the reception of persuasive messages..

Little work had been done previously in examining the differences in the formation of correspondent attributions across cultures (see, for e.g., Newman, 1993). The present finding that Hong Kong Chinese subjects do indeed attribute an actor's behavior to situational (external) factors in contrast to Anglo Canadians, an individualist group, provides needed evidence for this important process. Such attributions are ubiquitous in everyday social interactions, and in marketing situations as well. For instance, in the salesperson-consumer interaction, correspondent attributions are frequently made. Knowledge of the differences in the "locus" of these attributions among members of individualist and collectivist cultures could shed light on the different perceptions of the salesperson's selling effort across cultures.

For instance, salespeople in different cultures could handle objections to their sales arguments in different ways, depending on the nature of the correspondent inferences generated. Findings from the present study could spur new research on salespeople's behavior across cultures, which could ultimately lead to better cross-cultural sales training programs.

Of greater theoretical and practical importance is the significant finding of differences in cognitive responding between an individualist and collectivist culture:

- 1- First of all, the consistent differences in favorability scores provided evidence for the moderating effect of the individualist-collectivist cultural dimensions. Considerable theoretical speculation had been made as to the different cognitive processes engendered by different definitions of the self (e.g., Triandis, 1993; 1995). This study provides support for this theory. The two-sided message constitutes a representative example of message-based strategies. The findings may be applicable to other types of persuasive strategies, e.g., the use of repetition, rhetorical questions, and various executional strategies such as “inherent drama,” humour, etc. The significance of this study is that consistent differences were found in the cognitive response favorability scores using a variety of classes of cognitive responses - from fairly restricted, to fairly broad and inclusive. The effect seems to be robust. One must also keep in mind that two of the most important models of persuasion in use today, the Elaboration Likelihood Model, and the Heuristic Systematic Model, posit a cognitive responding process during “central” processing. Knowledge of a possible moderating effect of culture on this central route mechanism may have wide repercussions in the application of the ELM, or HSM models cross-culturally. One exciting finding, was the possible effect of language on the way individuals form their correspondent attributions, and on the “locus” of

the attribution. Why did Chinese Ss, responding to an experimental instrument in their native tongue, generate more external attributions, in contrast to subjects from the same pool who had been exposed to the instrument in the English language? What are the implications of this for Subjects exposed to English advertisements versus those exposed to the same ads in Chinese? Are we seeing a manifestation of cross-cultural accommodation, in which the Chinese subjects may react in a more “Western” style of behavior? On the other hand, it is also possible that tapping into the correspondent attribution process of an individual, is essentially tapping into linguistic processes subject to the Sapir-Whorf hypothesis. These are important areas for future research.

- 2- The second major application of the results of this study’s findings, is the fact that, from a cognitive responding perspective at least (and possibly also at the level of the consequent variables as well), two sided messages appear to work for the Anglo Canadians, the individualist culture, but not for the HKC. For this latter group, there were consistent findings that these subjects generated more favorable cognitive responses in their reactions to one-sided messages, rather than two-sided messages. There is actually other evidence for this. For instance, the phenomenon of “face,” so common in East Asian cultures, in which individuals refrain from embarrassing their interlocutors, or individuals or firms with whom they are dealing with, may

also create a resistance to disclaiming the product of one's firm, or even saying derogatory things about oneself. Thus, comparative messages and two-sided messages are not as common in East Asian cultures as they are in Western cultures. With the speed at which international business is now taking place, there may be a temptation to export advertising strategies which have worked in North America, to other cultures. This study's findings would suggest caution, not only for exporting the two-sided message strategy, but exporting any persuasion approach which depends for its action upon cognitive responding. It should be pointed out that the aim of the present experiment was centered on the different cognitive reactions of members of two diverse cultures when exposed to two- versus one-sided appeals, rather than on the risks faced by a firm as a result of selecting a particular appeal in a large-scale advertising campaign. Standardizing advertising campaigns introduces risk in foreign business operations. Not taking the different needs, cognitive processes, attitudes, and customs of foreign cultures into account can lead to significant negative results in foreign business activities, especially when the campaigns are of wide scope. Also, as Andrews, Lysonski, and Durvasula (1991) have pointed out, countries differ in terms of their perceptions of advertising in general, that is, in terms of advertising's functions, practices, industry, etc.; hence, the overall reaction of a foreign audience to an advertising campaign which deviates from its customary messages will be a function of many factors.

This, in turn, will impact the variability of the risks facing companies: These could run from wasted advertising expenditures to major damage done to a firm's reputation (see, for e.g., Ricks, Arpan, and Fu, 1974). One could thus conjecture, that if the two-sided strategy were to be used in a major advertising campaign directed at the Chinese, in addition to the fact that they may be less effective than their one-sided counterparts for the cognitive reasons mentioned above, they may also generate significant negative affective responses toward the campaign. A thorough assessment of the risk of using such a strategy, or the level of risk associated with the use of inappropriate advertising strategies in general, constitutes an important area for future research.

The approach taken in this study to compare cultures is relatively new to cross-cultural advertising research. This has been pioneered by Hofstede (1980), Triandis (1989), and Triandis, McCusker, and Hui (1980). The technique involves choosing cultures on the basis of their rankings on fundamental dimensions of cultural variation (e.g., individualism-collectivism). This method overcomes the traditional "piecemeal quality" of cross-cultural psychology and allows for the generalization of results (Morris, 1993, p.8). Results from a study such as the present one, may, thus, be applicable to other collectivistic cultures such as Japan and India, or to other individualist groups such as Australia, or the U.S.

There are of course a number of methodological limitations in this study. The very process of tapping protocols is fraught with difficulties, not the least of which are the problems encountered in using two or more teams of coders from different cultures. The

possibility of artifacts threatening internal validity is ever-present. One serious limitation of this study, is the sheer length of the questionnaire that was used. Although fatigue was attenuated somewhat by dividing the instrument into two sessions, each questionnaire by itself was fairly lengthy. This was necessitated, in part, by the need to use a multimethod approach to measure the I-C construct, and the need to capture covariates. In retrospect, the utility of some of the covariates used, was minimal. Better pre-testing with these co-variates would have eliminated the need to include them into the instrument, and thereby create a shorter more streamlined instrument which would have probably yielded more reliable data.

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APPENDIX A

**Means of Product and Message Involvement
of Subjects in Various Cells of Experimental Design**

**Mean Levels of the Laurent and Kapferer (1985)
Involvement Dimensions of the Various Cells of the
Experiment**

The means of the five dimensions or antecedents of product involvement are reported below. These dimensions are:

- 1- The Perceived importance and risk of the product class (PIMPORT)
- 2- The Subjective probability of making a mispurchase (PMISPUR)
- 3- The symbolic or sign value attributed to product (SIGNVAL)
- 4- The hedonic value of the product class (HEDONIC)
- 5- The interest in the product (INTEREST)

The description of the cells is provided in Figure 7.1 and Table 8.1.

Cell No. (Group)	Culture	Language of Instruments	Treatment
1	Anglo-Can.	English	Experimental, 1-sided
2	Anglo-Can.	English	Experimental, 2-sided
3	HKC	Chinese	Experimental, 1-sided
4	HKC	Chinese	Experimental, 2-sided
5	Anglo-Can.	English	Context-Control, 1-sided
6	Anglo-Can.	English	Context-Control, 2-sided
7	HKC	Chinese	Context-Control, 1-sided
8	HKC	Chinese	Context-Control, 2-sided
9	HKC	English	Language-Control, 1-sided
10	HKC	English	Language-Control, 2-sided

Comparisons between means of the various cells were also carried out using the Tukey Post Hoc test. Significant differences between means are shown by an * at the intersection of the row and column containing the means in question. If no pairs of means show any significant differences for a particular involvement dimension, no grid is shown.

PIMPORT

Group	Count	Mean	Std.Dev.
Grp 1	52	3.7179	1.0753
Grp 2	71	3.8169	.9804
Grp 3	48	3.6181	1.0496
Grp 4	42	3.6667	1.0969
Grp 5	26	3.9231	.9107
Grp 6	26	3.5385	1.2113
Grp 7	32	3.7917	.8371
Grp 8	25	3.8000	.8389
Grp 9	23	3.6377	.9152
Grp10	26	3.5256	.9246
Total	371	3.7134	.9971

No two groups are significantly different at the .050 level.

PMISPUR

Group	Count	Mean	Std.Dev.
Grp 1	52	3.1106	1.0127
Grp 2	71	3.1268	1.0035
Grp 3	48	2.9479	1.0988
Grp 4	42	2.7639	1.0721
Grp 5	26	3.3077	1.0708
Grp 6	26	3.1154	.8344
Grp 7	32	2.7240	.9879
Grp 8	25	3.0100	1.1978
Grp 9	23	3.3152	.9600
Grp10	26	2.9712	1.0962
Total	371	3.0303	1.0387

No two groups are significantly different at the .050 level.

SIGNVAL

Group	Count	Mean	Std.Dev.
Grp 1	52	2.2949	1.3966
Grp 2	71	2.8075	1.2732
Grp 3	48	3.2292	1.1632
Grp 4	42	3.3730	1.1170
Grp 5	26	2.7308	1.2755
Grp 6	26	2.4615	1.3955
Grp 7	32	3.2292	1.0315
Grp 8	25	3.1867	1.0323
Grp 9	23	2.8551	.9578
Grp10	26	3.4231	1.0896
Total	371	2.9326	1.2496

SIGNVAL

(*) Indicates significant differences which are shown in the lower triangle

```

G G G G G G G G G G
r r r r r r r r r r
P P P P P P P P P P
1
1 6 5 2 9 8 7 3 4 0

```

Mean	Cell
4.0897	Grp 1
4.2308	Grp 6
4.2500	Grp 5
4.2817	Grp 2
4.4928	Grp 9
4.6923	Grp 8
4.7986	Grp 7
4.8077	Grp 3
5.0513	Grp 4
5.2171	Grp10

```

*
*
*
*

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HEDONIC

Group	Count	Mean	Std.Dev.
Grp 1	52	2.7885	1.2438
Grp 2	71	2.6056	1.4401
Grp 3	48	2.8403	1.3244
Grp 4	42	2.5833	1.1026
Grp 5	26	2.8974	1.0318
Grp 6	26	3.2692	1.3532
Grp 7	32	2.8958	1.1498
Grp 8	25	3.0933	1.1202
Grp 9	23	2.7971	1.1043
Grp10	26	3.0385	1.0256
Total	371	2.8261	1.2383

No two groups are significantly different at the .050 level.

INTEREST

Group	Count	Mean	Std.Dev.
Grp 1	52	2.0833	1.0202
Grp 2	71	2.1831	1.1976
Grp 3	48	2.7153	1.2864
Grp 4	42	2.3810	1.0137
Grp 5	26	2.2821	1.1612
Grp 6	26	2.6795	1.3416
Grp 7	32	2.9375	1.0140
Grp 8	25	2.8933	1.2756
Grp 9	23	2.7246	.9829
Grp10	26	2.7692	.8833
Total	371	2.4897	1.1599

INTEREST

(*) Indicates significant differences which are shown in the lower triangle

```

G G G G G G G G G G
r r r r r r r r r r
p p p p p p p p p p
          1
1 2 5 4 6 3 9 0 8 7
    
```

Mean	Cell
2.0833	Grp 1
2.1831	Grp 2
2.2821	Grp 5
2.3810	Grp 4
2.6795	Grp 6
2.7153	Grp 3
2.7246	Grp 9
2.7692	Grp10
2.8933	Grp 8
2.9375	Grp 7

*

MESSAGE INVOLVEMENT

The degree of Message Involvement (or Message Response Involvement - see Hastak and Park, 1990) was also measured for each subject. The mean values obtained for each cell in the design are shown below. Significant differences between means are shown as an * at the intersection of the row and column containing the means in question.

MESSAGE INVOLVEMENT

(MESSINV)

Group	Count	Mean	Std.Dev.
Grp 1	52	4.0897	1.3449
Grp 2	71	4.2817	1.3740
Grp 3	48	4.7986	1.2859
Grp 4	43	5.2171	1.2969
Grp 5	26	4.8077	1.5119
Grp 6	26	5.0513	1.3456
Grp 7	32	4.2500	1.7102
Grp 8	26	4.6923	1.5403
Grp 9	23	4.4928	1.1231
Grp10	26	4.2308	1.5882
Total	373	4.5550	1.4374

Message Involvement

(*) Indicates significant differences which are shown in the lower triangle

```

G G G G G G G G G
r r r r r r r r r
p p p p p p p p p
  1
1 0 7 2 9 8 3 5 6 4
    
```

Mean	Cell
4.0897	Grp 1
4.2308	Grp10
4.2500	Grp 7
4.2817	Grp 2
4.4928	Grp 9
4.6923	Grp 8
4.7986	Grp 3
4.8077	Grp 5
5.0513	Grp 6
5.2171	Grp 4

* *

APPENDIX B

**Correlation Matrices of Covariates and of
Dependent Variables With Covariates**

Correlation Coefficients of Set of Covariates

	Need for Cognition	Locus of Control (Internal)	Locus of Control (Powerful Others)	Locus of Control (Chance)	Self-Esteem	Self-Acceptance	Scholarly	Source Pressuring
	MNFC	LOCINTEX	LOCOTHER	LOCCHANC	SELSUM	MSEIFA	SCHOOL	MPRESS
MNFC	1.0000 (.373) P=.000	.3328 (.371) P=.000	-.1847 (.371) P=.000	-.2288 (.371) P=.000	.3448 (.372) P=.000	-.2488 (.372) P=.000	.1119 (.372) P=.031	-.0626 (.373) P=.228
LOCINTEX	.3328 (.371) P=.000	1.0000 (.371) P=.000	-.2280 (.371) P=.000	-.2849 (.371) P=.000	.4145 (.371) P=.000	-.2523 (.371) P=.000	.0450 (.370) P=.388	-.0528 (.371) P=.311
LOCOTHER	-.1847 (.371) P=.000	-.2280 (.371) P=.000	1.0000 (.371) P=.000	.5652 (.371) P=.000	-.3084 (.371) P=.000	.4615 (.371) P=.000	.0971 (.370) P=.062	-.0717 (.371) P=.168
LOCCHANC	-.2288 (.371) P=.000	-.2849 (.371) P=.000	.5652 (.371) P=.000	1.0000 (.371) P=.000	-.2395 (.371) P=.000	.3174 (.371) P=.000	.0470 (.370) P=.367	-.0858 (.371) P=.099
SELSUM	.3448 (.372) P=.000	.4145 (.371) P=.000	-.3084 (.371) P=.000	-.2395 (.371) P=.000	1.0000 (.372) P=.000	-.5273 (.372) P=.000	.0397 (.371) P=.446	-.0172 (.372) P=.741
MSEIFA	-.2488 (.372) P=.000	-.2523 (.371) P=.000	.4615 (.371) P=.000	.3174 (.371) P=.000	-.5273 (.372) P=.000	1.0000 (.372) P=.000	.0268 (.371) P=.606	-.0783 (.372) P=.132
SCHOOL	.1119 (.372) P=.031	.0450 (.370) P=.388	.0971 (.370) P=.062	.0470 (.370) P=.367	.0397 (.371) P=.446	.0268 (.371) P=.606	1.0000 (.372) P=.000	.0141 (.372) P=.786
MPRESS	-.0626 (.373) P=.228	-.0528 (.371) P=.311	-.0717 (.371) P=.168	-.0858 (.371) P=.099	-.0172 (.372) P=.741	-.0783 (.372) P=.132	.0141 (.372) P=.786	1.0000 (.373) P=.000

(Coefficient / (Cases) / 2-tailed Significance)

" . " is printed if a coefficient cannot be computed
End of job.

Correlation Coefficients
Correspondence Score (Corscore) With Covariates
(Experimental, Two-Sided Ad Cells)

	Corscore	Need for Cognition	Locus of Control (Internal)	Locus of Control (Chance)	Self-Esteem	Scolarity	Source Pressuring
	CORSCORE	MNFC	LOCINTEX	LOCCHANC	SELFSUM	SCHOOL	MPRESS
CORSCORE	1.0000						
	(.114)	.0443	-.0360	.0599	.1077	.0537	-.0102
	P=	P=.640	P=.705	P=.528	P=.256	P=.570	P=.914

Correlation Coefficients
Correspondence Score (Corscore) With Covariates
(Context Control, Two-Sided Ad Cells)

	Corscore	Need for Cognition	Locus of Control (Internal)	Locus of Control (Chance)	Self-Esteem	Scolarity	Source Pressuring
	CORSCORE	MNFC	LOCINTEX	LOCCHANC	SELFSUM	SCHOOL	MPRESS
CORSCORE	1.0000						
	(.052)	.2413	.2384	-.1015	.4133	.1715	-.0299
	P=	P=.085	P=.089	P=.474	P=.002	P=.224	P=.833

**Correlation Coefficients
Source Honesty (MADVI) With Covariates
(Experimental Cells)**

	Source Honesty	Need for Cognition	Locus of Control (Internal)	Locus of Control (Powerful Others)	Locus of Control (Chance)	Self-Esteem	Self-Acceptance	Scholarly	Source Pressuring
	MADVI	MNFC	LOCINTEX	LOCOTHER	LOCCHANC	SELSUM	MSELEFA	SCHOOL	MPRESS
MADVI	1.0000								
	(214)								
	P= .								
		-.1235	-.0100	-.0271	.0383	.0264	-.0691	.0620	.1179
		(214)	(212)	(212)	(212)	(213)	(213)	(213)	(214)
		P= .071	P= .885	P= .695	P= .579	P= .702	P= .315	P= .368	P= .085

**Correlation Coefficients
Source/Message Orientation (MSMES) With Covariates**

	Need for Cognition	Locus of Control (Internal)	Locus of Control (Powerful Others)	Locus of Control (Chance)	Self-Esteem	Self-Acceptance	Scholarly	Source Pressuring
	MNFC	LOCINTEX	LOCOTHER	LOCCHANC	SELSUM	MSELEFA	SCHOOL	MPRESS
MSMES	-.0508							
	(371)							
	P= .329							
		-.0026	-.0057	-.0539	-.0252	-.0378	.0122	.0343
		(369)	(369)	(369)	(370)	(370)	(370)	(371)
		P= .960	P= .913	P= .302	P= .629	P= .468	P= .814	P= .510

(Coefficient / (Cases) / 2-tailed significance) " . " is printed if a coefficient cannot be computed
End of job.

Correlation Coefficients
Class I Cognitive Response Favorability Scores With Covariates
(Raw Scores)

	Need for Cognition	Locus of Control (Internal)	Locus of Control (Powerful Others)	Locus of Control (Chance)	Self-Esteem	Self-Acceptance	Scholarly	Source Pressuring
	MNFC	LOCINTEX	LOCOTHER	LOCCHANC	SELSUM	MSELFA	SCHOOL	MPRESS
FSLLI	.0166 (.373) P=.749	-.0298 (.371) P=.567	-.0406 (.371) P=.436	-.0302 (.371) P=.562	.0307 (.372) P=.554	-.0298 (.372) P=.567	.0018 (.372) P=.973	-.0286 (.373) P=.582
FSSMI	-.0358 (.373) P=.491	.0268 (.371) P=.607	.0264 (.371) P=.612	.0499 (.371) P=.338	-.0451 (.372) P=.385	.0115 (.372) P=.825	.0326 (.372) P=.530	-.0117 (.373) P=.821
FSSOI	-.0388 (.373) P=.456	.0406 (.371) P=.435	-.0686 (.371) P=.187	-.0506 (.371) P=.331	-.0218 (.372) P=.675	.0065 (.372) P=.901	-.0659 (.372) P=.205	.0559 (.373) P=.282

Correlation Coefficients
Class I Cognitive Response Favorability Scores With Covariates
(Fluency Corrected Scores)

	MNFC	LOCINTEX	LOCOTHER	LOCCHANC	SELSUM	MSELFA	SCHOOL	MPRESS
FSLLI	-.0018 (.84) P=.987	-.0537 (.84) P=.628	-.1658 (.84) P=.132	-.0375 (.84) P=.735	-.0397 (.84) P=.720	-.1078 (.84) P=.329	-.2824 (.84) P=.009	.1475 (.84) P=.181
FSSMI	-.0274 (.271) P=.653	.0285 (.271) P=.641	.0316 (.271) P=.605	.0424 (.271) P=.487	-.0346 (.271) P=.570	.0155 (.271) P=.799	.0198 (.271) P=.745	-.0102 (.271) P=.867
FSSOI	-.0422 (.78) P=.714	.0620 (.78) P=.590	-.0670 (.78) P=.560	-.1162 (.78) P=.308	-.0009 (.78) P=.994	.0231 (.78) P=.841	-.0772 (.78) P=.502	.1321 (.78) P=.249

(Coefficient / (Cases) / 2-tailed Significance) " " is printed if a coefficient cannot be computed
 End of job.

Correlation Coefficients
Class 2 Cognitive Response Favorability Scores With Covariates
(Raw Scores)

	Need for Cognition (Internal)	Locus of Control (Powerful Others)	Locus of Control (Chance)	Self-Esteem	Self-Acceptance	Scholarly	Source Pressuring
	LOCINTEX	LOCOTHER	LOCCHANC	SELFSUM	MSELFA	SCHOOL	MPRESS
FSLI2C	.0194 (.373) P=.709	-.0462 (.371) P=.375	-.0338 (.371) P=.516	.0244 (.372) P=.639	-.0459 (.372) P=.377	.0132 (.372) P=.800	-.0168 (.373) P=.747
FSSM2C	-.0939 (.373) P=.070	.0528 (.371) P=.310	.0916 (.371) P=.078	-.0948 (.372) P=.068	.0037 (.372) P=.943	-.0481 (.372) P=.355	.0263 (.373) P=.612
FSSO2C	-.0323 (.373) P=.534	-.0667 (.371) P=.200	-.0582 (.371) P=.263	.0045 (.372) P=.931	.0037 (.372) P=.943	-.0941 (.372) P=.070	.0265 (.373) P=.610

Correlation Coefficients
Class 2 Cognitive Response Favorability Scores With Covariates
(Fluency Corrected Scores)

	Need for Cognition (Internal)	Locus of Control (Powerful Others)	Locus of Control (Chance)	Self-Esteem	Self-Acceptance	Scholarly	Source Pressuring
	LOCINTEX	LOCOTHER	LOCCHANC	SELFSUM	MSELFA	SCHOOL	MPRESS
FSLI2FC	-.0149 (.89) P=.890	-.2140 (.89) P=.044	-.0936 (.89) P=.383	-.1329 (.89) P=.214	-.1887 (.89) P=.077	-.1203 (.89) P=.261	.1364 (.89) P=.202
FSSM2FC	-.1022 (.349) P=.056	.0705 (.347) P=.190	.0947 (.347) P=.078	-.0415 (.348) P=.440	.0293 (.348) P=.586	-.0315 (.348) P=.558	.0113 (.349) P=.833
FSSO2FC	.0389 (.135) P=.654	-.0676 (.135) P=.436	-.0870 (.135) P=.316	-.0025 (.135) P=.977	-.0279 (.135) P=.748	-.0521 (.135) P=.549	.0911 (.135) P=.293

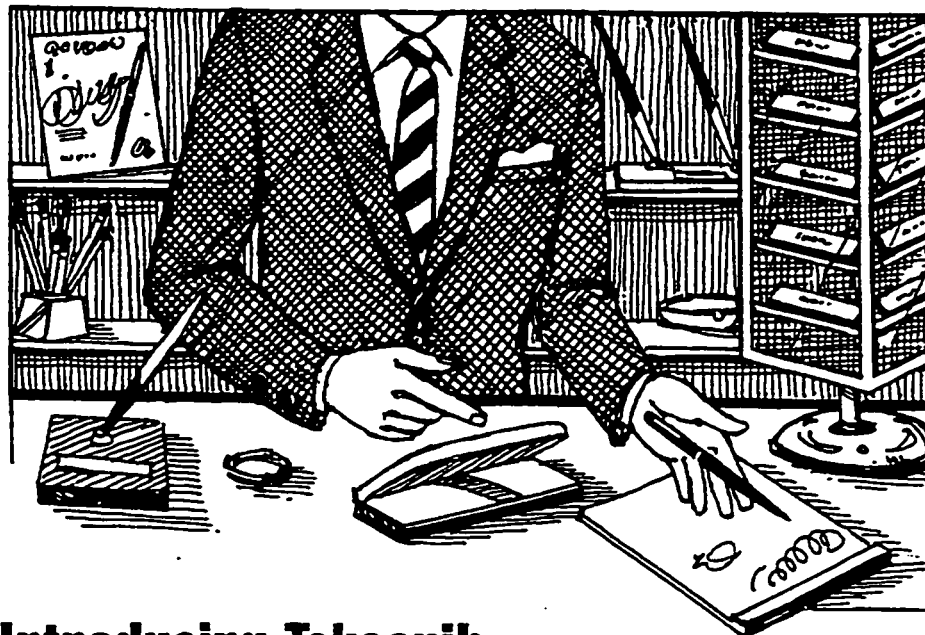
Correlation Coefficients
Class 3 Cognitive Response Favorability Scores With Covariates
(Raw Scores and Fluency Corrected Scores)

	Need for Cognition (Internal)	Locus of Control (Powerful Others)	Locus of Control (Chance)	Self-Esteem	Self-Acceptance	Scholarly	Source Pressuring
	LOCINTEX	LOCOTHER	LOCCHANC	SELFSUM	MSELFA	SCHOOL	MPRESS
FSLB3C	-.0748 (.373) P=.149	.0140 (.371) P=.787	.0500 (.371) P=.337	-.0664 (.372) P=.201	-.0100 (.372) P=.847	-.0534 (.372) P=.305	.0212 (.373) P=.683
FSLB3FC	-.0947 (.363) P=.022	.0242 (.361) P=.361	.0543 (.361) P=.361	-.0291 (.362) P=.362	-.0098 (.362) P=.362	-.0379 (.362) P=.362	.0234 (.363) P=.363

APPENDIX C

Advertisements Used

For “experimental” and “control” Subjects



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- *its silky smooth writing performance. Your thoughts will seem to flow more freely than ever*
- *a tip that never skips, smears or smudges*
- *an ergonomic shape and comfortable grip that make writing more effortless and pleasurable than ever.*

So why pay astronomical prices for pens that are second best to Tekscrib when for less than \$20 the ultimate writing experience can be at your fingertips?





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Although refill cartridges are slightly more expensive than those for ordinary ball-point refills, from the moment you start using the new Tekscrib, you'll be immediately impressed with:

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- *an ergonomic shape and comfortable grip that make writing more effortless and pleasurable than ever.*

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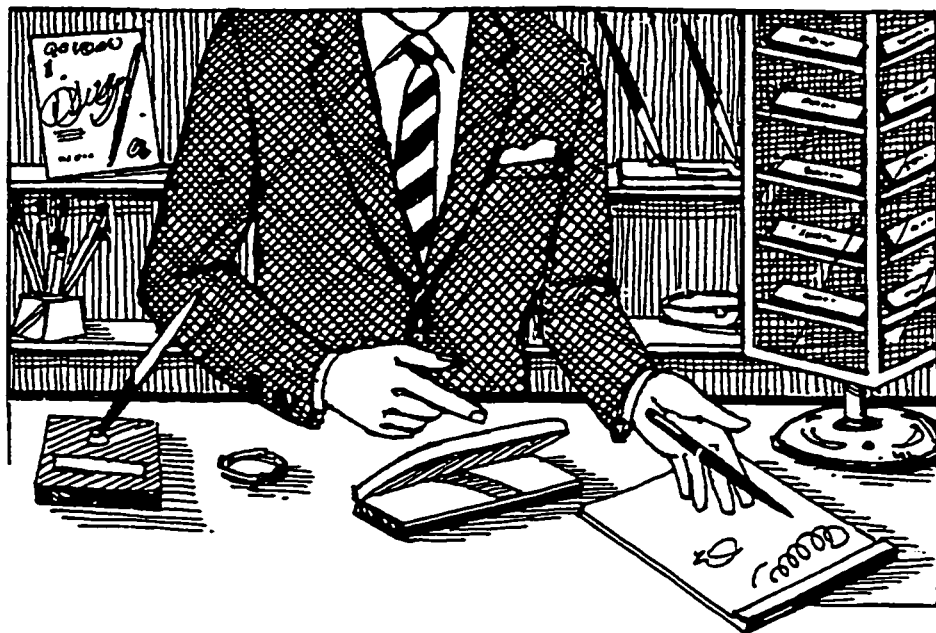
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- *its silky smooth writing performance. Your thoughts will seem to flow more freely than ever*
- *a tip that never skips, smears or smudges*
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So why pay astronomical prices for pens that are second best to Tekscrib when for less than \$20 the ultimate writing experience can be at your fingertips?



隆重介紹 -- TEKSCRIB

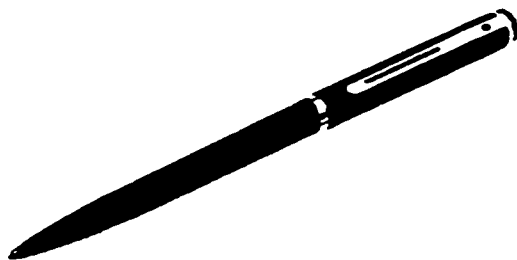
價格低於二十元的優質鋼筆
 它不僅擁有歐式筆的華麗設計
 而且比歐洲極品鋼筆有更好的書寫表現

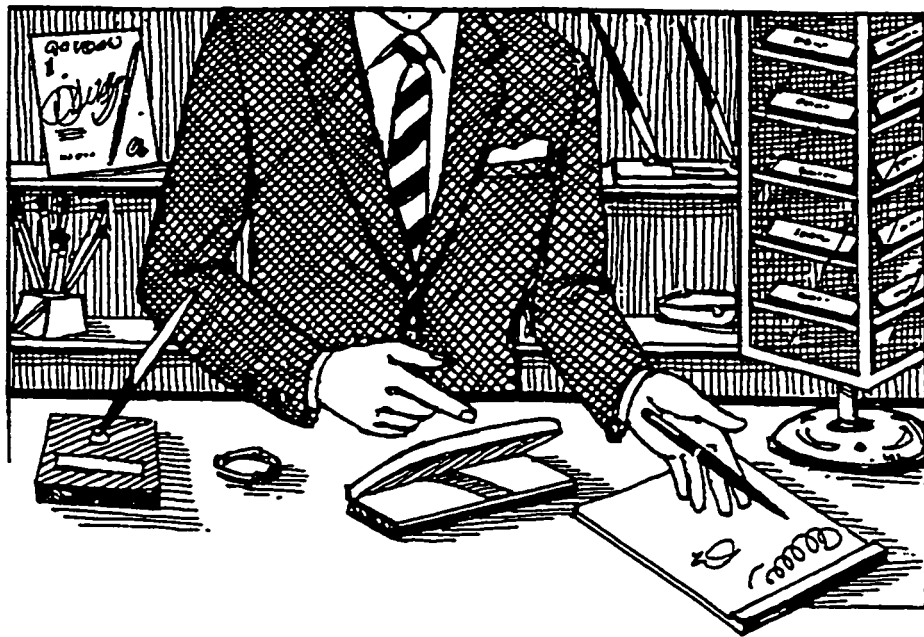
作為一個有 75 年以上經驗的國際性書寫生產廠家，我們歡欣並自豪地宣佈——TEKSCRIB 隆重上市。其創新的陶瓷筆咀，使它擁有比歐洲之極品鋼筆更超凡的表現。TEKSCRIB 實在是價廉物美。

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因此，祇要付出不到二十元你的指尖便能享受到流暢的書寫感受，為何還要付出天文數字般的價錢購買那些還不如 TEKSCRIB 的鋼筆呢？





隆重介紹 -- TEKSCRIB

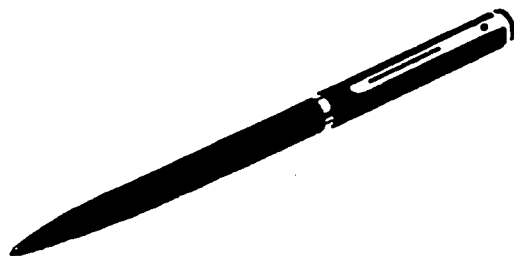
價格低於二十元的優質鋼筆
 它不僅擁有歐式筆的華麗設計
 而且比歐洲極品鋼筆有更好的書寫表現

作為一個有 75 年以上經驗的國際性書寫生產廠家，我們歡欣並自豪地宣佈——TEKSCRIB 隆重上市。其創新的陶瓷筆咀，使它擁有比歐洲之極品鋼筆更超凡的表現。TEKSCRIB 實在是價廉物美。

雖然其注墨管比普通鋼筆的注墨管稍貴一點，但你一經使用 TEKSCRIB，便會被其深深吸引住：

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- 其筆咀絕不會斷墨、化墨或漏墨。
- 其符合人體工學的外形令握筆的感覺更為舒適，書寫更能得心應手。

因此，祇要付出不到二十元你的指尖便能享受到流暢的書寫感受，為何還要付出天文數字般的價錢購買那些還不如 TEKSCRIB 的鋼筆呢？



隆重介紹 -- TEKSCRIB
價格低於二十元的優質鋼筆
它不僅擁有歐式筆的華麗設計
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- 其筆咀絕不會斷墨、化墨或漏墨。
- 其符合人體工學的外形令握筆的感覺更為舒適，書寫更能得心應手。

因此，祇要付出不到二十元你的指尖便能享受到流暢的書寫感受，為何還要付出
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它不僅擁有歐式筆的華麗設計
而且比歐洲極品鋼筆有更好的書寫表現

作為一個有 75 年以上經驗的國際性書寫生產廠家，我們歡欣並自豪地宣佈——TEKSCRIB 隆重上市。其創新的陶瓷筆咀，使它擁有比歐洲之極品鋼筆更超凡的表現。TEKSCRIB 實在是價廉物美。

雖然其注墨管比普通鋼筆的注墨管稍貴一點，但你一經使用 TEKSCRIB，便會被其深深吸引住：

- 其如絲般柔順的書寫表現，會令你的寫作靈感如泉般湧現。
- 其筆咀絕不會斷墨、化墨或漏墨。
- 其符合人體工學的外形令握筆的感覺更為舒適，書寫更能得心應手。

因此，祇要付出不到二十元你的指尖便能享受到流暢的書寫感受，為何還要付出天文數字般的價錢購買那些還不如 TEKSCRIB 的鋼筆呢？

APPENDIX D

**Questionnaires Used for Anglo-Canadian
and Hong Kong Chinese Subjects**

APPENDIX D



Concordia
UNIVERSITY

Dear Student:

I am a researcher presently carrying out a study in the area of international marketing. To obtain the data for this research, it is necessary to have a sample of individuals examine an advertisement and respond to two questionnaires - this to be carried out in two sessions. Your cooperation in completing this task would be greatly appreciated.

Please note that your participation is completely voluntary and anonymous, and you may stop at any time. All your responses will be kept strictly confidential and will only be used for statistical purposes.

The purpose of the PHASE I questionnaire is to measure your cultural orientation, certain individual characteristics and cognitive traits, as well as a number of demographic characteristics. This part should take about 30 minutes to complete. You can bring it home and do it at whatever time is convenient to you. Please bring it back on the day that you will do the PHASE II questionnaire. The PHASE II questionnaire will be administered on another day by your professor and/or research assistant. They will also inform you of the time and place for participating in the PHASE II questionnaire.

Enclosed with the PHASE I questionnaire is a consent form to participate in the experiment. Please take a few minutes to read the form and, if you agree with it, please sign it, and return it to the professor or research assistant.

I thank you for your participation, and hope that you will enjoy the experience.

Handwritten signature of Roy Toffoli.

Roy Toffoli,
Doctoral candidate in
Business Administration

Handwritten signature of Michel Laroche.

Michel Laroche, Supervisor
Professor of Marketing
Concordia University.

Code Number _____

PHASE I QUESTIONNAIRE*SECTION I*

Part 1. In the spaces below, please complete the 20 sentences. Answer the question: Who Am I? as if you are giving the answer to yourself, not to someone else. Write your answers in the order they occur to you. Do not worry about importance or logic. Go fairly fast.

- 1) I am _____.
- 2) I am _____.
- 3) I am _____.
- 4) I am _____.
- 5) I am _____.
- 6) I am _____.
- 7) I am _____.
- 8) I am _____.
- 9) I am _____.
- 10) I am _____.
- 11) I am _____.
- 12) I am _____.
- 13) I am _____.
- 14) I am _____.
- 15) I am _____.
- 16) I am _____.
- 17) I am _____.
- 18) I am _____.
- 19) I am _____.
- 20) I am _____.

Part II: In this part of the questionnaire, you are to ask yourself: "What values are important to ME as guiding principles and what values are less important to me?" There are two lists of values on the following pages. These values come from different cultures. In the parentheses following each value is an explanation that may help you to understand it.

Your task is to rate how important each value is for you as a guiding principle in your life. Use the rating scale below:

- 0 means the value is not at all important, it is not relevant as a guiding principle for you.
- 3 means the value is important.
- 6 means the value is very important.

The higher the number (0, 1, 2, 3, 4, 5, 6), the more important the value is as a guiding principle in YOUR life.

-1 is for rating any values opposed to the principles that guide you.

7 is for rating a value of supreme importance as a guiding principle in your life; ordinarily there are no more than two values.

In the space before each value, write the number (-1, 0, 1, 2, 3, 4, 5, 6, 7) that indicates the importance of that value for you, personally. Try to distinguish as much as possible between the values by using all the numbers.

As a Guiding Principle In My Life, this value is:

	opposed							of	
	to my	not						very	supreme
	values	important	important	important	important	importance			
	-1	0	1	2	3	4	5	6	7

Before you begin, read values 1 to 18 and choose the one that is most important to you and rate its importance. Next, choose that is most opposed to your values, or -- if there is no such value -- choose the value least important to you, and rate it -1, 0, according to its importance. Then rate the rest of the values (to 18).

List I

- 1 ____ EQUALITY (equal opportunity for all)
- 2 ____ PLEASURE (gratification of desires)
- 3 ____ FREEDOM (freedom of action and thought)
- 4 ____ SENSE OF BELONGING (feeling that others care about me)
- 5 ____ SOCIAL ORDER (stability of society)
- 6 ____ AN EXCITING LIFE (stimulating experiences)
- 7 ____ MEANING IN LIFE (a purpose in life)
- 8 ____ POLITENESS (courtesy, good manners)
- 9 ____ NATIONAL SECURITY (protection of my nation from enemies)
- 10 ____ SELF RESPECT (belief in one's own worth)
- 11 ____ RECIPROCATION OF FAVORS (avoidance of indebtedness)
- 12 ____ CREATIVITY (uniqueness, imagination)
- 13 ____ RESPECT FOR TRADITION (preservation of time-honored customs)
- 14 ____ SELF-DISCIPLINE (self-restraint, resistance to temptation)

As a Guiding Principle In My Life, this value is:

opposed								of
to my	not					very		supreme
values	important	important		important	important	important		importance
-1	0	1	2	3	4	5	6	7

- 15 ____ DETACHMENT (from worldly concerns)
 16 ____ FAMILY SECURITY (safety for loved ones)
 17 ____ SOCIAL RECOGNITION (respect, approval by others)
 18 ____ A VARIED LIFE (filled with challenge, novelty and change)

List II: Now rate how important each of the following values is for you as a guiding principle in YOUR life. These values are ways of acting that may be more or less important for you. Once again, try to distinguish as much as possible between values by using all the numbers.

Before you begin, read values 1 to 17 and choose the one that is most important to you and rate its importance. Next, choose that is most opposed to your values, or --- if there is no such value --- choose the value least important to you, and rate it -1, according to its importance. Then rate the rest of the values.

As a Guiding Principle In My Life, this value is:

opposed								of
to my	not					very		supreme
values	important	important		important	important	important		importance
-1	0	1	2	3	4	5	6	7

- 1 ____ INDEPENDENT (self-reliant, self-sufficient)
 2 ____ MODERATE (avoiding extremes of feeling and action)
 3 ____ LOYAL (faithful to my friends, group)
 4 ____ HUMBLE (modest, self-effacing)
 5 ____ DARING (seeking adventure, risk)
 6 ____ HONORING OF PARENTS AND ELDERS (showing respect)
 7 ____ CHOOSING OWN GOALS (selecting own purposes)
 8 ____ HEALTHY (not being sick physically or mentally)
 9 ____ ACCEPTING MY PORTION IN LIFE (submitting to life's circumstances)
 10 ____ PRESERVING MY PUBLIC IMAGE (protecting my "face")
 11 ____ OBEDIENT (dutiful, meeting obligations)
 12 ____ INTELLIGENT (logical, thinking)
 13 ____ ENJOYING LIFE (enjoying food, sex, leisure, etc.)
 14 ____ DEVOUT (holding to religious faith and belief)
 15 ____ RESPONSIBLE (dependable, reliable)
 16 ____ CURIOUS (interested in everything, exploring)
 17 ____ CLEAN (neat, tidy)

Part III: In this question, you are to circle a number on the scale to indicate your agreement or disagreement with the following statements.

	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree
I would help, within my means, if a relative told me that he/she is in financial difficulty.	1	2	3	4	5	6
When faced with a difficult personal problem, it is better to decide what to do yourself, rather than follow the advice of others.	1	2	3	4	5	6
I like to live close to my good friends.	1	2	3	4	5	6
It does not matter to me how my country is viewed in the eyes of other nations.	1	2	3	4	5	6
One of the pleasures of life is to be related interdependently with others.	1	2	3	4	5	6
What happens to me is my own doing.	1	2	3	4	5	6
What I look for in a job is a friendly group of co-workers.	1	2	3	4	5	6
I would rather struggle through a personal problem by myself, than discuss it with my friends.	1	2	3	4	5	6
Aging parents should live at home with their children.	1	2	3	4	5	6
The most important thing in my life is to make myself happy.	1	2	3	4	5	6
When faced with a difficult personal problem, one should consult widely with one's friends and relatives.	1	2	3	4	5	6
Aging parents should have their own household.	1	2	3	4	5	6
One of the pleasures of life is to feel being part of a large group of people.	1	2	3	4	5	6
I tend to do my own things, and most people in my family do the same.	1	2	3	4	5	6
Children should live at home with their parents until they get married.	1	2	3	4	5	6
I like to live in cities, where there is anonymity.	1	2	3	4	5	6

SECTION 2

1. Please circle a number on the scale to indicate your agreement or disagreement with the following statements.

	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree
I consider myself to be English Canadian	1	2	3	4	5	6
My mother is English-Canadian	1	2	3	4	5	6
My father is English-Canadian	1	2	3	4	5	6
I am very attached to all aspects of the English culture	1	2	3	4	5	6
My closest friends are English Canadian	1	2	3	4	5	6

SECTION 3

1. We'd like to know something about your habits. Imagine that someone takes a position on each of the following topics. DO NOT KNOW what will be said or who will say it. For each topic, how much does it matter to you (1) *who* says it compared to (2) *what* is said? Circle a number on the scales shown below to indicate the relative emphasis that you would place on these two factors as you reflect on the topic.

<u>Topic areas</u>	Who says it matters most to me				What is said matters most to me		
Politics	1	2	3	4	5	6	7
Civil rights	1	2	3	4	5	6	7
Medical research	1	2	3	4	5	6	7
Contagious diseases (e.g., Aids)	1	2	3	4	5	6	7
Religion	1	2	3	4	5	6	7
International relations	1	2	3	4	5	6	7
Space programs	1	2	3	4	5	6	7
Mental health	1	2	3	4	5	6	7
Jazz	1	2	3	4	5	6	7
Subversion from far right political groups	1	2	3	4	5	6	7
Environmental issues	1	2	3	4	5	6	7
Job opportunities	1	2	3	4	5	6	7

2. In this question, you are to circle a number on the scale to indicate your agreement or disagreement with the following statements.

	Strongly disagree	Moderately disagree	Slightly disagree	Neutral	Slightly agree	Moderately agree	Strongly agree
I prefer complex to simple problems.	1	2	3	4	5	6	7
I like to have the responsibility of handling a situation that requires a lot of thinking	1	2	3	4	5	6	7
Thinking is not my idea of fun.	1	2	3	4	5	6	7
I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.	1	2	3	4	5	6	7
I try to anticipate and avoid situations where there is a likely chance that I will have to think in depth about something.	1	2	3	4	5	6	7
I find satisfaction in deliberating hard and for long hours.	1	2	3	4	5	6	7
I only think as hard as I have to	1	2	3	4	5	6	7
I prefer to think about small, daily projects to long-term ones.	1	2	3	4	5	6	7
I like tasks that require little thought once I've learned them.	1	2	3	4	5	6	7
The idea of relying on thought to make my way to the top appeals to me.	1	2	3	4	5	6	7
I really enjoy a task that involves coming up with new solutions to problems.	1	2	3	4	5	6	7
Learning new ways to think doesn't excite me very much.	1	2	3	4	5	6	7
I prefer my life to be filled with puzzles that I must solve.	1	2	3	4	5	6	7
The notion of thinking abstractly is appealing to me.	1	2	3	4	5	6	7
I prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.	1	2	3	4	5	6	7
I feel relief rather than satisfaction after completing a task that required a lot of mental effort.	1	2	3	4	5	6	7
It's enough for me that something gets the job done. I don't care how or why it works.	1	2	3	4	5	6	7
I usually end up deliberating about issues even when they do not affect me personally.	1	2	3	4	5	6	7

3. Please indicate your agreement or disagreement with the following statement:

	Strongly disagree	Disagree	Slightly disagree	Undecided	Slightly agree	Agree	Strongly agree
A company or organization's rules should not be broken - not even when the employee thinks it is in the company's best interest.	1	2	3	4	5	6	7

4. Please think of an ideal job - disregarding either your present job or the fact that you are in university or college. In an ideal job, how important would it be to you to (please circle one number in each line across):

	Of no importance at all	Of very little importance	Of little importance	Of moderate importance	Very important	Of utmost importance
Have little tension and stress on the job.	1	2	3	4	5	6
Work in a well-defined job situation where the requirements are clear.	1	2	3	4	5	6

5. In this question, circle a number on the scale to indicate your agreement or disagreement with the following statements:

	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
I feel that I'm a person of worth, at least on an equal basis with others.	1	2	3	4	5	6
I feel that I have a number of good qualities.	1	2	3	4	5	6
I am able to do things as well as most other people.	1	2	3	4	5	6
I take a positive attitude toward myself.	1	2	3	4	5	6
On the whole, I am satisfied with myself.	1	2	3	4	5	6

6. In this question, a series of statements are presented to you. Each represents a commonly held opinion. There are no right answers. You will probably agree with some items and disagree with others. We are interested in the extent to which you disagree with such matters of opinion. Indicate your choice by circling the number following each statement on the scale below. First impressions are usually best.

GIVE YOUR OPINION ON EVERY STATEMENT

If you find that the numbers to be used in answering do not adequately reflect your own opinion, use the one that is closest to the way you feel.

	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
To a great extent my life is controlled by accidental happenings.	1	2	3	4	5	6
I feel like what happens in my life is mostly determined by powerful people.	1	2	3	4	5	6
When I make plans, I am almost certain to make them work.	1	2	3	4	5	6
Often there is no chance of protecting my personal interests from bad luck happenings.	1	2	3	4	5	6
When I get what I want, it's usually because I'm lucky.	1	2	3	4	5	6
Although I might have good ability, I will not be given leadership responsibility without appealing to those in positions of power.	1	2	3	4	5	6
My life is chiefly controlled by powerful others.	1	2	3	4	5	6
It's not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune.	1	2	3	4	5	6
I can pretty much determine what will happen in my life.	1	2	3	4	5	6
I am usually able to protect my personal interests.	1	2	3	4	5	6
When I get what I want, it's usually because I worked hard for it.	1	2	3	4	5	6
My life is determined by my own actions.	1	2	3	4	5	6

7. With respect to the following statements, indicate how you feel that each statement is true of yourself. Circle the number on the scale that best matches your answer. Please note that there is no right answer for any statement. The best answer is the one that you feel is true of yourself.

	Not at all true of myself	Slightly true of myself	About half- way true of myself	Mostly true of myself
I live too much by other peoples' standards.	1	2	3	4
I feel that people are apt to react differently to me than they would normally react to other people.	1	2	3	4
When I'm in a group I usually don't say much for fear of saying the wrong thing.	1	2	3	4
Even when people do think well of me, I feel sort of guilty because I know I must be fooling them--that if I were really to be myself, they wouldn't think well of me.	1	2	3	4
I sort of only half-believe in myself.	1	2	3	4
I don't say much at social affairs because I'm afraid that people will criticize me or laugh if I say the wrong thing.	1	2	3	4
When I have to address a group, I get self-conscious and have difficulty saying things well.	1	2	3	4
I feel self-conscious when I'm with people who have a superior position to mine in business or at school.	1	2	3	4
I'm not afraid of meeting new people. I feel that I'm a worthwhile person and there's no reason why they should dislike me.	1	2	3	4
I am quite shy and self-conscious in social situations.	1	2	3	4
I feel that I'm a person of worth, on an equal plane with others.	1	2	3	4
I am frequently bothered by feelings of inferiority.	1	2	3	4
I do not worry or condemn myself if other people pass judgment against me.	1	2	3	4
I'm satisfied with my present situation	1	2	3	4
I will continue to grow best by being myself	1	2	3	4
I always do things confidently and positively	1	2	3	4
I believe that I have the ability to deal with my daily work	1	2	3	4

SECTION 4

This section contains a number of demographic questions for classification purposes only. Please check the appropriate answer.

1. Sex Female Male

2. How old are you?

- Under 18
- 18 - 19
- 20 - 24
- 25 - 29
- 30 - 34

- 35 - 39
- 40 - 49
- 50 - 59
- 60 or over

3. Marital status Single Married Living Together Separated or Divorced

4. What is your present living status?

- Presently living at home with parents.
- Living temporarily away from home due to studies (e.g., in a university residence)
- Living permanently in own home or apartment.

5. What is the size of the household into which you were born? (In addition to the father, mother and all the children, also grandparents and other family members who may have been living under the same roof.)

- 1 2 3 4 5 6 or more

6. How many years of formal school education did you complete? (Starting with primary school, count only the number of years of formal school education you completed. If you took a course that should officially take more years than you spent on it, count the number of years the same course would have taken you full-time.)

- 10 years or less
- 11 years
- 12 years
- 13 years
- 14 years
- 15 years
- 16 years
- 17 years
- 18 years or over

If you are presently working full time, answer questions 7, 8, 9 otherwise answer questions 10 - 15.

7. What is the highest degree, diploma, or certificate attained (i.e., corresponding to the above scolarity)?

- Partial high school or less
- Completed high school
- Partial community college/technical school/CEGEP
- Completed community college/technical school/CEGEP
- Partial university
- University - Bachelor's degree
- University - Master's degree
- University - Doctorate

8. If you attended technical school, college or university, what is its name _____

9. What is your occupation, or what type of work do you do? _____

10. If you are presently attending full-time either a community college (including technical school or CEGEP) or university, in the present stage of your studies:

Community college/technical school/CEGEP: ___ 1st year ___ 2nd year ___ 3rd year

University undergraduate: ___ 1st year ___ 2nd year ___ 3rd year ___ 4th year

University postgraduate: ___ Master's ___ Doctorate (Ph.D)

11. Name of the college or university now attending: _____

12. What is your major, or field of study? _____

13. Do you have a part-time job? ___ yes ___ no

14. If you had worked full time prior to undertaking your current studies, what was your occupation, or what type of work did you do? _____

15. What is (was) the occupation of the head of the family into which you were born? _____

16. What is the highest certificate, diploma or degree obtained by the head of the family into which you were born?

___ Partial high school or less

___ Completed high school

___ Partial community college/technical school/CEGEP

___ Completed community college/technical school/CEGEP

___ Partial university

___ University - Bachelor's degree

___ University - Master's degree

___ University - Doctorate (Ph.D.)

17. What is your approximate annual income? (in Canadian dollars)

___ under \$15,000

___ \$15,000 to \$35,000

___ \$35,100 to \$55,000

___ \$55,100 to \$75,000

___ \$75,100 to \$95,000

___ above \$95,000

18. What is the approximate annual income of the family into which you were born? (in Canadian dollars)

___ under \$15,000	___ \$55,100 to \$75,000
___ \$15,000 to \$35,000	___ \$75,100 to \$95,000
___ \$35,100 to \$55,000	___ above \$95,000

19. In this section, we would like to know the extent to which you use English, French, or some other language in the following interpersonal and mass-communication contexts. Please give a distribution in percent of time from 0 (never) to 100 (all the time).

	<i>English</i>	<i>French</i>	<i>Other</i>	<i>Total</i>
At home	_____	_____	_____	100%
With relatives	_____	_____	_____	100%
With close friends	_____	_____	_____	100%
When reading newspapers	_____	_____	_____	100%

20. Which language do you consider your second language?

<i>English</i>	<i>French</i>	<i>Other</i>
_____	_____	_____ (Specify) _____

21. In the spaces below, place a check mark next to the level of education which you carried out mostly in English.

None	_____
Elementary (primary) school	_____
High school	_____
Community college/ technical school/CEGEP	_____
University	_____

22. With regards to your secondary education, did you:

Do your entire secondary schooling

in Canada? _____

elsewhere? _____ (specify) _____

OR

Did you start it elsewhere and completed it in Canada? _____

Specify where you started: _____

23. In what country were you born? Country: _____

24. If you were born in Canada, did your ancestors belong to one (or more) of the following cultural groups when they first came to Canada? ENGLISH, IRISH, SCOTTISH, OR WELSH?

____ YES ____ NO

If not born in Canada, answer questions 25 to 28

25. How long have you been residing in Canada? ____ years ____ months

26. Are you in Canada as a :

Foreign "visa student" ____yes ____no

Landed immigrant ____yes ____no

27. The last place of your residency before you moved to Canada : _____

28. On first coming to Canada, did you or your ancestors belong to one (or more) of the following cultural groups - ENGLISH, IRISH, SCOTTISH, OR WELSH?

____ YES ____ NO

29. In what countries have you lived? (list countries):

30. In which country have you lived the longest? List country: _____

31. What is your present nationality? _____

32. What is your religious affiliation? _____

With the following questions, we would like to have a better idea of what you consider to be your principal culture (i.e., the main culture that you most strongly identify yourself with.)

The most common indicator of one's principal culture is the country in which a person is born. However, this is not for everyone. For instance, some countries such as Canada, India, Belgium have more than one distinct culture. Also, sometimes, people did not grow up in the country in which they were born. In other cases, people grew up in countries where the culture is defined in terms of family relationships rather than by the boundaries of their country. An example of such cultures would be many of the aboriginal societies around the world which consider their principal culture to be different from their countries' culture (examples of these, would be the Native Canadians, the Australian aborigines, etc.)

33. Do you consider your principal culture to be different from that of the country in which you were born? ___ yes ___

34. If yes, name the culture which you feel you are a part of: _____

35. How typical do you consider your views to be of members of the culture you indicated above? Circle the number which corresponds to your choice.

My views are not
at all typical of
members of my
culture

1

2

My views are
common but not
always typical of
members of my
culture

3

4

My views are
very typical of
members of my
culture

5



Concordia

UNIVERSITY

Dear Student:

Thank you for completing the PHASE I questionnaire. Today, you are going to participate in the second part of the experiment by completing the PHASE II questionnaire.

Once more, I would like to point out that your participation is completely voluntary and anonymous, and you may stop at any time. All your responses will be kept strictly confidential and will only be used for statistical purposes. The code number on both the envelope and questionnaire is there simply to help me keep all the completed questionnaires together.

At the end of the experiment, please insert the questionnaires in the envelope and return it to the professor or research assistant. Now, please turn to the next page for the instructions of the PHASE II questionnaire.

A handwritten signature in cursive script that reads "Roy Toffoli".

Roy Toffoli,
Doctoral candidate in
Business Administration

A handwritten signature in cursive script that reads "Michel Laroche".

Michel Laroche, Supervisor
Professor of Marketing
Concordia University.

Code Number _____

PHASE II QUESTIONNAIRE**GENERAL INSTRUCTIONS FOR THE EXPERIMENT**

The company that manufactures the product shown in the advertisement included in this package is planning its world-wide launch, and this means that the product will soon be available in a retail store in your area. However, because of the international scope of its operations, it needs feedback on the proposed ad campaign. This, then, is the purpose of the present study. Your role is to evaluate the prototype ad that is included in your experimental package. After receiving instructions from the research assistant, take out the advertisement and read it **carefully - in the same manner that you would an ad in your favorite magazine**. This is important since you will be called upon to evaluate both the ad and the product itself.

Once you have answered all the questions, insert all the material in the brown envelope provided and hand it to the attendant. I would ask you to please not communicate or observe the work of others while carrying out the experiment. Also, please do not change previously completed responses. Since it will not be possible to have all the subjects in the sample take the experiment in the same day, do not discuss the experiment or procedures with anyone else after completing the questionnaire. This could seriously jeopardize the validity of the study.

PLEASE WAIT FOR FURTHER INSTRUCTIONS

SECTION I

The purpose of the next series of questions is to assess the various THOUGHTS which you may have had while examining the pen ad and the description of the pen therein.

In the space provided in column I below, write down all the THOUGHTS relevant to the pen or its advertisement which came through your mind. Do not hesitate to write all your thoughts, even those that might not appear important to you. Do not take longer than three minutes to complete this task, but stop writing whenever you have no more thoughts to report. Report your thoughts using one or two words or short phrases. Ignore spelling, punctuation, and grammar. WRITE ONLY ONE THOUGHT PER LINE. If you need additional space, use the back of the page.

I		II	III
_____	:	___	: ___ :
_____	:	___	: ___ :
_____	:	___	: ___ :
_____	:	___	: ___ :
_____	:	___	: ___ :
_____	:	___	: ___ :
_____	:	___	: ___ :
_____	:	___	: ___ :
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_____	:	___	: ___ :
_____	:	___	: ___ :
_____	:	___	: ___ :
_____	:	___	: ___ :
_____	:	___	: ___ :
_____	:	___	: ___ :
_____	:	___	: ___ :

Now, go back to the preceding listing of thoughts, and classify them on the following basis:

- 1- **On the degree to which you felt each thought to be positive, negative, or neutral.** For each of your answers, use the scale below to make your judgments. Thus, a +3 indicates that you qualify the thought that you wrote as being very positive, a -3 as being very negative, and a 0 as being neutral.

VERY NEGATIVE	-3	-2	-1	0	+1	+2	+3	VERY POSITIVE
------------------	----	----	----	---	----	----	----	------------------

For each of your answers, indicate your evaluation by writing the number in the space reserved for that purpose under column II on the previous page.

- 2- **On the degree of importance that you attached to the thoughts in forming or influencing you attitude toward the brand of pen advertised.** Use the following scale..

THIS THOUGHT HAD A STRONG INFLUENCE ON MY ATTITUDE TOWARD THE ADVERTISED PRODUCT

1	2	3	4
STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE

Indicate your assessment of the strength of influence by writing the number in the space reserved for that purpose under column III on the previous page.

SECTION 2

1. Advertisers (persons promoting a product) may have one or more reasons for making claims about the product they are promoting. Indicate to what extent you agree or disagree that the following are the reasons for the advertiser to make product claims in the ad.

THE PRODUCT CLAIMS WERE MADE BECAUSE...

	Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
the product actually possesses these characteristics	1	2	3	4	5	6	7
of the desire to sell the product	1	2	3	4	5	6	7
of the desire to deceive the consumer	1	2	3	4	5	6	7
the advertiser is paid to provide the information	1	2	3	4	5	6	7
of the advertiser's desire to be helpful to the audience	1	2	3	4	5	6	7
of the advertiser's genuine concern for the audience	1	2	3	4	5	6	7

PROVIDE YOUR OWN REASONS IF YOU WISH

_____	1	2	3	4	5	6	7
_____	1	2	3	4	5	6	7
_____	1	2	3	4	5	6	7
_____	1	2	3	4	5	6	7
_____	1	2	3	4	5	6	7
_____	1	2	3	4	5	6	7

2. In your belief, how likely is it that Tekscrib has the following characteristics?

	Very likely							
Tekscrib has a luxurious appearance.	1	2	3	4	5	6	7	8
Tekscrib has a comfortable grip.	1	2	3	4	5	6	7	8
Tekscrib is available in different colors.	1	2	3	4	5	6	7	8
Tekscrib has an excellent writing performance.	1	2	3	4	5	6	7	8
Tekscrib doesn't skip, smear or smudge.	1	2	3	4	5	6	7	8
Tekscrib has low cost refill cartridges.	1	2	3	4	5	6	7	8
Tekscrib has silky-smooth writing	1	2	3	4	5	6	7	8
Tekscrib has an attractive appearance	1	2	3	4	5	6	7	8
Tekscrib is available in different writing thicknesses.	1	2	3	4	5	6	7	8
Tekscrib has a suggested retail price under \$20.	1	2	3	4	5	6	7	8
Tekscrib has a ceramic writing tip.	1	2	3	4	5	6	7	8
Tekscrib has an ergonomic shape.	1	2	3	4	5	6	7	8

3. How important are the following features in making a choice of a particular brand of the pen similar to the one in the ad.

	Not important at all							Extrem import
Luxuriousness	1	2	3	4	5	6	7	8
Comfortable grip	1	2	3	4	5	6	7	8
Writing performance	1	2	3	4	5	6	7	8
Freedom from skipping, smearing or smudging	1	2	3	4	5	6	7	8
Cost of refill cartridges	1	2	3	4	5	6	7	8
Smoothness of writing	1	2	3	4	5	6	7	8
Attractiveness of appearance	1	2	3	4	5	6	7	8
High tech writing tip	1	2	3	4	5	6	7	8
Ergonomic shape	1	2	3	4	5	6	7	8
Availability of different writing thicknesses	1	2	3	4	5	6	7	8
Availability of different colors	1	2	3	4	5	6	7	8
Price	1	2	3	4	5	6	7	8

4. Without referring to this particular brand of pen, what is your attitude toward these types (or category) of pens?

Very bad	1	2	3	4	5	6	7	Very good
Very unfavorable	1	2	3	4	5	6	7	Very favorable
Dislike very much	1	2	3	4	5	6	7	Like very much

5. Overall, how would you rate Tekscrib?

I completely dislike Tekscrib	1	2	3	4	5	6	7	I like Tekscrib a great deal
Tekscrib is a very bad brand	1	2	3	4	5	6	7	Tekscrib is a very good brand
Tekscrib is very unsatisfactory	1	2	3	4	5	6	7	Tekscrib is very satisfactory
Tekscrib has very low appeal	1	2	3	4	5	6	7	Tekscrib has very high appeal

Explain how you made your overall judgment.

6. How would you judge Tekscrib on *writing performance*?

Worst writing performance	1	2	3	4	5	6	7	Best writing performance
Very unsatisfactory writing performance	1	2	3	4	5	6	7	Very satisfactory writing performance
I strongly dislike Tekscrib's writing performance	1	2	3	4	5	6	7	I like Tekscrib's writing performance a great deal

Explain how you made your judgment of Tekscrib's writing performance.

7. How would you rate the quality of the message (i.e., the set of words and images used by the advertiser to convey his/ her message to you)?

Very unpersuasive	1	2	3	4	5	6	7	Very persuasive
Very weak	1	2	3	4	5	6	7	Very strong

8. According to you, the advertiser (the person promoting the product) was:

Very dishonest	1	2	3	4	5	6	7	Very honest
Completely untrustworthy	1	2	3	4	5	6	7	Completely trustworthy
Totally insincere	1	2	3	4	5	6	7	Totally sincere
Totally unbelievable	1	2	3	4	5	6	7	Totally believable
Very biased	1	2	3	5	6	7	7	Very unbiased

9. In your opinion, the ad for Tekscrib was:

Very bad	1	2	3	4	5	6	7	Very good
Highly dislikable	1	2	3	4	5	6	7	Highly likable
Very unappealing	1	2	3	4	5	6	7	Very appealing
Totally uninteresting	1	2	3	4	5	6	7	Highly interesting

10. How would you judge Tekscrib on *being attractive*?

Least attractive	1	2	3	4	5	6	7	Most attractive
Very bad looking	1	2	3	4	5	6	7	Very good looking
Not elegant at all	1	2	3	4	5	6	7	Very elegant

11. Indicate how well the arguments in the message for Tekscrib are described by the following characteristics:

Totally vague, impossible to understand	1	2	3	4	5	6	7	Very straightforward, easy to understand
There is no meaning at all	1	2	3	4	5	6	7	There is only one possible meaning
Highly contradictory	1	2	3	4	5	6	7	Highly consistent
Completely unclear	1	2	3	4	5	6	7	Completely clear

12. To what degree did you feel that the advertiser (the person promoting the product) was pressuring you?

Very high pressure	1	2	3	4	5	6	7	Very low pressure
Very aggressive	1	2	3	4	5	6	7	Very unaggressive
Very pushy	1	2	3	4	5	6	7	Not pushy at all

13. Circle the number which corresponds to the degree to which you cared about the advertised information regarding features of the pen.

I did not care at all about the advertised information regarding the brand features of the pen.	1	2	3	4	5	6	7	I cared a great deal about the advertised information regarding the brand features of the pen.
---	---	---	---	---	---	---	---	--

14. What is the likelihood you will purchase the Tekscrib pen the next time an opportunity presents itself?

Definitely will not purchase	1	2	3	4	5	6	7	Definitely will purchase
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15. How believable is the advertising message (i.e., the set of words and images used by the advertiser to convey his/you)?

Completely unbelievable	1	2	3	4	5	6	7	Completely believable
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16. While looking at, and evaluating the advertising message, you were:

Very uninvolved	1	2	3	4	5	6	7	Very involved
Concentrating very little	1	2	3	4	5	6	7	Concentrating very hard
Paying very little attention	1	2	3	4	5	6	7	Paying a great deal of attention

17. If you were to see the ad in a magazine you were reading, how likely would you be to read all the text or set of words in the ad?

Highly improbable	1	2	3	4	5	6	7	Highly probable
-------------------	---	---	---	---	---	---	---	-----------------

18. How much information do you feel the ad provided?

Very little	1	2	3	4	5	6	7	A great deal
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19. How useful do you feel the information in the ad is to you?

Of no use at all 1 2 3 4 5 6 7 Highly useful

20. How would you judge Tekscrib on *the price of the refill cartridges?*

Very expensive	1	2	3	4	5	6	7	Very inexpensive
High priced	1	2	3	4	5	6	7	Low priced
Not at all affordable	1	2	3	4	5	6	7	Very affordable

Explain how you made your judgment of Tekscrib's price of refill cartridges.

21. How would you judge the advertiser (the person promoting the product) with respect to his/her knowledge about the pen?

Very inexperienced	1	2	3	4	5	6	7	Very experienced
Very uninformed	1	2	3	4	5	6	7	Very informed
Not expert	1	2	3	4	5	6	7	Highly expert

22. Is the recommendation made by the advertiser (the person promoting the product) to adopt the Tekscrib pen justified on the facts he/she presented?

Not at all justified 1 2 3 4 5 6 7 Very justified

23. Why did you like or dislike the advertisement for Tekscrib? Give your reasons in the space below.

SECTION 3

1. Below are a number of statements dealing with either the category of good quality pens (similar to that shown in the a decision to purchase one of these pens. For each statement, please circle the number which best describes your extent of a

	Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree
When you choose these pens, it is not a big deal if you make a mistake.	1	2	3	4	5	6
It is really annoying to purchase pens that are not suitable.	1	2	3	4	5	6
If, after I bought such a pen, my choice(s) proves to be poor, I would really be upset.	1	2	3	4	5	6
Whenever one buys such a pen, one never really knows whether it is the one that should have been bought.	1	2	3	4	5	6
When I face a shelf of such pens, I always feel a bit at a loss to make my choice.	1	2	3	4	5	6
Choosing such a pen is rather complicated.	1	2	3	4	5	6
When one purchases such a pen, one is never certain of one's choice.	1	2	3	4	5	6
You can tell a lot about a person by the pen he or she chooses.	1	2	3	4	5	6
The pen I buy gives a glimpse of the type of person I am.	1	2	3	4	5	6
The pen you buy tells a little bit about you.	1	2	3	4	5	6
It gives me pleasure to purchase this type of pen.	1	2	3	4	5	6
Buying such a pen is like buying a gift for myself.	1	2	3	4	5	6
This type of pen is somewhat of a pleasure to me.	1	2	3	4	5	6
I attach great importance to such pens.	1	2	3	4	5	6
One can say this type of pen interests me a lot.	1	2	3	4	5	6
These types of pens are a topic which leaves me totally indifferent.	1	2	3	4	5	6

2. In general, would you consider yourself familiar or unfamiliar with good quality pens?

Very
Unfamiliar 1 2 3 4 5 6 7 Very
Familiar

3. Would you consider yourself knowledgeable about good quality pens?

Know nothing
at all 1 2 3 4 5 6 7 Know a
great deal

4. Do you use pens of the quality described in the ad?

Yes ___ No ___ If yes, answer question 5.

If No, go directly to question 6.

5. How frequently do you use such pens?

___ Every day during work or study

___ Occasionally (say when writing personal letters or signing important documents or papers)

___ Rarely

6. If you had to purchase a good quality pen for yourself, in which of the following price ranges would you make your selection? (Canadian Dollars)

___ less than \$10

___ \$60 to \$100

___ \$10 to \$29

___ greater than \$100

___ \$30 to \$59

SECTION 4

1. In this question, we want to know if you perceive a relationship between pairs of features of pens similar to that which is shown in the advertisement.

The characteristics of the pens are labeled (A) or (B) in column 1 below. To the right of these features are three columns for your possible judgments of a relationship (or no relationship) between these features.

If you feel there is a relationship between the two features, read the two options in column 2 and mark an (X) next to the one that you feel represents the relation. If you believe that there is no relationship between the features, put an (X) in column 3. On the other hand, you feel that you don't know enough about pens to judge whether A and B are related, place an (X) in column 4. The example below dealing with cars will give you a better idea of how to answer this question.

1	2	3	4
A) Size of engine	As size of engine increases, fuel economy: increases ____ decreases <u>X</u>	No relationship exists _____	Don't know enough about cars _____
B) Fuel economy			

In the above example, if you believe that engine size and fuel economy tend to be related and that, as engine size increases the fuel economy decreases, you would put an (X) as indicated above.

Now, please make your judgements of the relationships between the following pairs of features of pens.

1	2	3	4
A) Appearance	As appearance improves, writing smoothness tends to: improve ____ worsen ____	No relationship exists _____	Don't know enough about pens _____
B) Writing smoothness			
A) Shape of the pen	As the shape of the pen becomes more ergonomic, the comfort of the grip tends to: improve ____ worsen ____	No relationship exists _____	Don't know enough about pens _____
B) Comfort of grip			
A) Cost of refill cartridges	As the cost of refill cartridges increases, writing performance tends to: improve: ____ worsen: ____	No relationship exists _____	Don't know enough about pens _____
B) Writing performance			

2. How would you rate your comprehension of the English text in the advertisement?

- I had no problem understanding the English text. I understood the entire message.
- There were a few words that I didn't understand. But I understood the message as a whole.
- There were many words that I didn't understand, and I only understood some parts of the message.
- I didn't understand anything of what was written.

3. How would you rate your overall comprehension of the English questionnaire?

- I had no problem understanding the English questionnaire. I understood every question.
- There were a few questions that I didn't understand.
- There were many questions that I didn't understand. I found it very difficult to understand the English questions.
- I didn't understand anything of what was written.

4. How would you rate your understanding of the instructions given to you by the research assistant.

- I had no problem understanding the English instructions. I understood every directive.
- There were a few instructions that I didn't understand.

Indicate what you were not sure of:

- There were many instructions that I didn't understand. I found it very difficult to follow and understand the research assistant.
- I didn't understand anything of what was said.

5. What do you think the purpose of the present study was? Please be brief.

END OF QUESTIONNAIRE

THANK YOU VERY MUCH FOR YOUR COOPERATION



Concordia
UNIVERSITY

市場學系
商業管理專業

親愛的同學們：

我是蒙特利爾市康克迪亞大學的博士生。目前，我正在從事一項有關國際市場的研究。爲了搜集研究資料，我需要一些人來檢驗并回答以下的產品廣告和問卷。此項工作將有助於知識的進步，因此，我真誠地希望諸位能同意參與這項研究工作。

請您明確，參與這項實驗是本着完全自願和不記名的原則，您可以隨時停下來。您的所有回答均屬機密，僅供用於統計分析的目的。實驗中所需的資料存放在您桌上的那個信封中。信封和問卷上的編碼祇是爲把您的資料放在一起。整個實驗約持續一小時十五分鐘。

信封中最上面的是一份同意參加此實驗的協議書，請首先閱讀這份協議書，如果您同意協議書上的事項，請在協議書上簽字後交給實驗助理。在沒有接到下一步的指令之前，請不要打開整個資料夾。

在實驗結束時，請將問卷裝入信封中，交回給實驗助理。

再次感謝您的協助，祝您有一個愉快的實驗。

堯 毛弗力
博士生
商業管理系

米歇爾 拉繞弛
導師、市場學教授
康克迪亞大學

實驗一
第一部分

編號_____

I. 請續寫以下二十句句子以回答“我是誰”這個問題，就像您在回答自己的問題一樣，而不是回答別人的問題，所以請隨意作答，亦無需顧慮該答案是否重要或符合邏輯。

- 1) 我是 _____
- 2) 我是 _____
- 3) 我是 _____
- 4) 我是 _____
- 5) 我是 _____
- 6) 我是 _____
- 7) 我是 _____
- 8) 我是 _____
- 9) 我是 _____
- 10) 我是 _____
- 11) 我是 _____
- 12) 我是 _____
- 13) 我是 _____
- 14) 我是 _____
- 15) 我是 _____
- 16) 我是 _____
- 17) 我是 _____
- 18) 我是 _____
- 19) 我是 _____
- 20) 我是 _____

I I . 這部分需要閣下問您自己：對我來說，什麼價值觀是我做人的重要準則，什麼價值觀是較不重要的？

下面有兩種價值觀列表。這些價值觀來自於不同的文化。每種價值觀旁都有一個解釋該價值觀的句子，希望它能幫助閣下了解前面所列價值觀的含義。

您的任務是按每個價值觀對您做人準則之重要程度給予分數。請用以下的評分制度

0 表示這個價值觀毫不重要，與您的做人準則毫無關係。

3 表示這個價值觀是重要的。

6 表示這個價值觀是非常重要的。

分數（0，1，2，3，4，5，6）越高，表示這個價值觀對您的做人準則具有越重要的意義。

- 1 表示任何與您的做人準則相反的價值觀。

7 表示這個價值觀對您的做人準則是至為重要的。一般來說，最多僅有兩個這樣的價值觀。

請把數字（- 1，0，1，2，3，4，5，6，7）填寫在每個價值觀前面的空位內，以反映這個價值觀對您個人的重要程度。

請盡量利用所有的數字以區別各價值觀之間的差異。

作為我的做人準則，這價值觀是：

與我的價值觀相反	不 重要			重要				非常 重要	至為 重要
- 1	0	1	2	3	4	5	6	7	

在您開始回答前，請先仔細閱讀 1 - 18 所列舉的價值觀，然後揀出一個對您來說是至為重要的價值觀，並對它給予分數。跟着，請揀出與您相反的價值觀，若無，則請揀出對您來說最不重要的價值觀，並按其重要程度給予 - 1，0 或 1 分。最後，請對其餘的價值觀評分（至第十八題）。

價值觀表一

1. 平等（各人機會均等）
2. 快感（滿足欲望）
3. 自由（行動及思想自由）
4. 歸屬感（感受到別人對自己的關懷）
5. 社會紀律（社會的穩定）
6. 一個刺激的人生（一些激勵性的經驗）

作為我的做人準則，這價值觀是：

與我的價值觀相反	不重要	重要					非常重要	至為重要
- 1	0	1	2	3	4	5	6	7

在您開始回答前，請先仔細閱讀 1 - 18 所列舉的價值觀，然後揀出一個對您來說是至為重要的價值觀，並對它給予分數。跟着，請揀出與您相反的價值觀，若無，則請揀出對您來說最不重要的價值觀，並按其重要程度給予 - 1，0 或 1 分。最後，請對其餘的價值觀評分（至第十八題）。

7. 人生意義（生命的目的）
8. 禮貌（友善，良好的態度）
9. 國家安全（保護國土，免受敵人侵襲）
10. 自尊（肯定自我價值）
11. 報恩 / 回報別人的恩惠（避免欠下別人的人情）
12. 創造力（獨特性，富有想像力）
13. 尊重傳統（保留年代久遠的習俗）
14. 自律（自我約束，抗拒誘惑）
15. 超脫（脫離物質世界）
16. 家庭安康（所愛的人安全）
17. 社會認可（它人的尊敬，認許）
18. 充滿變化的人生（生活中充滿挑戰，變化萬千及新奇的事物）

價值觀表二

現在請按以下各價值觀對您的做人準則的重要程度而給予分數。這些價值觀是用不同形式的行為來表達的。對您來說，它們有着不同的重要性。與前面的做法一樣，請您盡量利用所有的數字以區別不同的價值觀。

在您開始回答前，請先細閱 1 - 17 所列的價值觀，然後揀出一個對您來說是至為重要的，並對它的重要性給予分數。跟着，請揀出您最反感的價值觀，若無，則請揀出對您來說最不重要的價值觀，請根據其重要性給予 - 1，0，或 1 分。最後，請對其餘的價值觀評分。

I I I . 在這部分裡，請在適當的號碼上劃圈，以表示您對下列各句子的同意程度。

	極不 同意	不 同意	稍不 同意	中 性	稍 同意	同 意	極 同意
假若我的親戚經濟拮据，我會在我能力範圍內盡力幫助他／她。	1	2	3	4	5	6	7
當面臨個人難題時，由自己決定如何處理總比依照別人的建議好。	1	2	3	4	5	6	7
我喜歡我的好友住在我家附近。	1	2	3	4	5	6	7
我不在意其他國家的人怎樣看我的國家。	1	2	3	4	5	6	7
能與其它人互相聯系是生命裡的一件樂事。	1	2	3	4	5	6	7
任何發生在我身上的事都是我個人的事，與他人無尤。	1	2	3	4	5	6	7
在工作上我所尋求的是友善的同事。	1	2	3	4	5	6	7
我寧願獨力應付自己的難題，也不會與朋友們討論。	1	2	3	4	5	6	7
年老的父母應與他們的子女同住。	1	2	3	4	5	6	7
令自己快樂是我生命中最重要的事情。	1	2	3	4	5	6	7
當面對個人難題時，他／她應廣泛地徵詢親友的意見。	1	2	3	4	5	6	7
年老的父母應有他們自己的居所。	1	2	3	4	5	6	7
成為群體的一份是生命裡的一種快樂。	1	2	3	4	5	6	7
我會自己處理自己的事情，我的家人也大多如此。	1	2	3	4	5	6	7
子女應與父母同住，直至子女們成家立室為止。	1	2	3	4	5	6	7
我喜歡住在城市，因為在那裡沒有許多人認識我。	1	2	3	4	5	6	7

第二章

I. 下面的各句子都描述了您在加拿大的多元文化環境中對自己的感受及如何進行日常活動。請在下面圈上適當的號碼以表明您對以下描述的同意程度。當您不知如何回答時，圈上你估計的最好答案。

	極不 同意	不 同意	稍不 同意	中 性	稍 同意	較 同意	極 同意
我認為我自己是中國人。	1	2	3	4	5	6	7
我反對被看成中國人。	1	2	3	4	5	6	7
我喜歡被看成是中國人。	1	2	3	4	5	6	7
我對中國文化仍然很有感情。	1	2	3	4	5	6	7
我對家人時常說英語。	1	2	3	4	5	6	7
我讀的報紙 / 雜誌全是英文的。	1	2	3	4	5	6	7
我看的電影 / 錄影帶全是英文的。	1	2	3	4	5	6	7
我講流利的英文。	1	2	3	4	5	6	7
我用英文與家人談論個人或情感上的問題。	1	2	3	4	5	6	7
我用英文和朋友溝通。	1	2	3	4	5	6	7
我用英語來思考。	1	2	3	4	5	6	7
我能寫很好的英文信。	1	2	3	4	5	6	7
我的朋友全是講英語的加拿大人。	1	2	3	4	5	6	7
我跟講英語的加拿大人交往感覺很輕鬆。	1	2	3	4	5	6	7
我對講英語的加拿大人各方面的文化都很有感情。	1	2	3	4	5	6	7
我經常與講英語的加拿大人在一起。	1	2	3	4	5	6	7

第三章

1. 我們想了解你的一些生活習慣。試想像有一個人講論以下的題目，你既不知道題目的內容，也不知道那個人是誰。對以下的每一個題目，請你比較（1）是誰說的和（2）說的是什麼，那一項較重要？請你圈上適當的號碼來表明你對兩者之間的重視程度。

題目	是誰說的 對我最重要					說的是什麼 對我最重要	
	1	2	3	4	5	6	7
政治	1	2	3	4	5	6	7
民權	1	2	3	4	5	6	7
醫學研究	1	2	3	4	5	6	7
傳染性疾病（比如，愛滋病）	1	2	3	4	5	6	7
宗教	1	2	3	4	5	6	7
國際關係	1	2	3	4	5	6	7
太空計劃	1	2	3	4	5	6	7
精神健康	1	2	3	4	5	6	7
爵士樂	1	2	3	4	5	6	7
右派反政府組織	1	2	3	4	5	6	7
環境	1	2	3	4	5	6	7
就業機會	1	2	3	4	5	6	7

2. 在這部分裡，請在適當的號碼上劃圈以表明您對以下各個句子的同意程度。

	極不 同意	不 同意	稍不 同意	中 立	稍 同意	同 意	極 同意
我喜歡處理複雜的問題多於簡單的問題	1	2	3	4	5	6	7
我喜歡承擔要用思考來處理事情的責任。	1	2	3	4	5	6	7
思考不是我心目中的樂趣。	1	2	3	4	5	6	7

	極不 同意	較不 同意	稍不 同意	中 立	稍 同意	較 同意	極 同意
較之於那些挑戰我的思考能力的事，我更願做不需思考的事。	1	2	3	4	5	6	7
我努力避免應付那些需要深入思考的情況。	1	2	3	4	5	6	7
我對於深入而持久的思考感到滿意。	1	2	3	4	5	6	7
我只做必要深刻的思考。	1	2	3	4	5	6	7
較之於長遠的計劃，我更喜歡考慮日常的小計劃。	1	2	3	4	5	6	7
我喜歡那些一旦掌握後就不再需要很多思考的任務。	1	2	3	4	5	6	7
那種靠思考而成功的念頭很吸引我。	1	2	3	4	5	6	7
我真的喜歡那些能發現解決問題新方法的工作。	1	2	3	4	5	6	7
學習用新的方法思考不吸引我。	1	2	3	4	5	6	7
我喜歡我的生活中充滿需要解決的迷。	1	2	3	4	5	6	7
我對抽象思維的概念很感興趣。	1	2	3	4	5	6	7
較之於重要而不需思考的任務，我更喜歡智力的、困難的及重要的任務。	1	2	3	4	5	6	7
完成一項努力勞動後，我感到解脫而不是滿意。	1	2	3	4	5	6	7
我只注重完成工作而不注重過程和方法。	1	2	3	4	5	6	7
我經常討論那些對我個人並無影響的問題。	1	2	3	4	5	6	7

3. 請表明您對下面句子的同意程度：

	極不 同意	不 同意	稍不 同意	無 決定	稍 同意	同 意	極 同意
不可違反公司或組織的規章制度， 即使雇員認為是從公司 / 組織的最 佳利益出發。	1	2	3	4	5	6	7

4. 請想像一個理想的工作，忽略您現在的工作或您正在上大學或高中。請在下面的每一行上適當的號碼上劃圈，以表明在選擇一個理想的工作時，以下的標準對您有多重要。

	全不 重要	幾乎 不重要	有點 重要	較 重要	很 重要	極 重要
幾乎沒有緊張和壓力的工作。	1	2	3	4	5	6
在一個要求明確的工作環境中工作。	1	2	3	4	5	6

5. 請就您個人的情況，在適當的號碼上劃圈，以表明你的同意程度。

	極不 同意	不 同意	稍不 同意	稍 同意	同 意	極 同意
我認為自己是個有價值的人，至 少基本上是與別人相等的。	1	2	3	4	5	6
我覺得我有很好的質素。	1	2	3	4	5	6
我做事的能力和大部分人一樣好。	1	2	3	4	5	6
我對於自己抱着正面的態度。	1	2	3	4	5	6
總括起來，我對自己很滿意。	1	2	3	4	5	6

6. 以下的題目列出了一連串的句子，每一個句子代表了一般人持有的態度（而這些態度是沒有對錯之分）。您也許會同意一些而不同意另一些。我們想知道你對每句的同意程度。請在下面圈上適當的號碼。

通常第一個感覺是最好的。請對每個句子發表意見。

如果您感到所給的號碼不能充分表達您的意見，請選擇與之最接近的一個。

	極不 同意	較不 同意	稍不 同意	稍 同意	較 同意	極 同意
我的生活在極大程度上被偶然事件所控制。	1	2	3	4	5	6
我認為大多數在我生活中發生的事情都被有權力的人所控制。	1	2	3	4	5	6
當我制定計劃時，我大多相信它是可行的。	1	2	3	4	5	6
我通常無法避免壞運氣。	1	2	3	4	5	6
我能達到我的目的多是因為我的運氣好。	1	2	3	4	5	6
儘管我有很強的能力，但如果沒有那些有權勢之人的幫助，我是沒有機會擔負領導工作的。	1	2	3	4	5	6
我的生活在極大程度上被有權勢的人所控制。	1	2	3	4	5	6
對我而言，提早計劃常是不明智的。因為許多事情最終不過是取決於好運氣或壞運氣罷了。	1	2	3	4	5	6
在很大程度上，我能決定我的生活將是怎樣。	1	2	3	4	5	6
我通常能保護我的個人利益。	1	2	3	4	5	6
我能得到我所想要的東西大多是因為我努力工作的結果。	1	2	3	4	5	6
我的所作所為決定我的生活。	1	2	3	4	5	6

7. 針對下面的每個句子，請在適當的號碼上劃圈以表明您對它的認同程度。這裡沒有“正確”或“錯誤”的回答。您的真正感受就是最好的回答。

	根本不是我	有點是我	一半是我	大部分是我	真的是我
我的生活中有太多其他人的標準。	1	2	3	4	5
我感覺人們對我的反應與對其他人的反應通常不同。	1	2	3	4	5
當我在小組裡，經常因害怕說錯話而不講話。	1	2	3	4	5
當人們認為我很好時，我似乎感到很負罪。因為，我知道我一定是在欺騙他們——如果我是真實的我，他們一定不會認為我很好。	1	2	3	4	5
我似乎只有一半相信我自己。	1	2	3	4	5
在社會活動中，我不大講話。因為我擔心如果我講錯了，人們會批評或嘲笑我。	1	2	3	4	5
當我必須在小組中講話時，我會害羞和無法將事情講好。	1	2	3	4	5
當我與那些在生意上或學校裡比我的地位高的人在一起時，我會意識到自我。	1	2	3	4	5
我不害怕認識陌生人。我感到自己是一位有價值的人，人們沒有理由不喜歡我。	1	2	3	4	5
在社交場合，我很害羞而且自我意識很強。	1	2	3	4	5
我認為我是一個有價值的人，在一個與他人平等的位置上。	1	2	3	4	5
我常為自卑的感覺而煩惱。	1	2	3	4	5

	根本 不是我	有點 是我	一半 是我	大部 分是我	真的 是我
當他人談論我時，我不煩惱，也不 譴責我自己。	1	2	3	4	5
我對自己目前的情況感到滿意。	1	2	3	4	5
我覺得接受自己現在的樣子，可以 使自己成長得更好。	1	2	3	4	5
我處理事情是正確和肯定的。	1	2	3	4	5
我相信我有能力處理自己的日常事務。	1	2	3	4	5

第四章

這部分包括一些人口統計方面的問題，請在適當的答案上劃勾。

1. 性別： 女 男

2. 年齡：

18歲以下

18--19

20--24

25--29

30--34

35--39

40--49

50--59

60或以上

3. 婚姻狀況： 單身 已婚

同居 分居或離婚

4. 居住狀況：

與父母同住在家中

因學業而暫不住在家中（例如，大學寄宿）

長期居住在自己的家或公寓裡

5. 你出生時家庭之人口？（包括父母，兄弟姐妹，祖父母及其他成員）

1 2 3 4 5 6 或更多

6. 您完成了多少年的正規學校教育？（請從小學算起，按正規的學齡來計，無論您實際用了多於或少於它的時間。如果您上半日制或夜校，請按如您上全日制所需的時間來算）

少於或等於10年

11年

12年

13年

14年

15年

16年

17年

18年或以上

如果您現在做全日制的工作，請回答問題 7、8、9。否則，請回答問題 10-15。

7. 您所得的最高文憑、學位或證書（對照前面的學齡）：

- _____ 未完成高中或以下程度
- _____ 高中畢業
- _____ 未完成大學預科/職業學校/CEGEP
- _____ 大學預科/職業學校/CEGEP畢業
- _____ 未完成大學學位
- _____ 大學 -- 學士學位
- _____ 大學 -- 碩士學位
- _____ 大學 -- 博士學位

8. 您曾經就讀的大專或大學，請列舉： _____

9. 您的職業 / 您做哪一類的工作？ _____

10. 如果您現在上全日制大專（包括職業學校）或大學，請表明您的年級：
大專 / 職業學校

- _____ 一年級
- _____ 二年級
- _____ 三年級

大學本科

- _____ 一年級
- _____ 二年級
- _____ 三年級
- _____ 四年級

大學畢業後

- _____ 碩士生
- _____ 博士生

11. 您現在就讀的大專或大學是 _____

12. 您的主修專科是 _____

13. 您有半日制工作嗎？ 有 _____ 沒有 _____

14. 如果您在現在的學業之前曾做過全日制的工作，您的職業 / 您做哪一類的工作？

15. 您的一家之主的職業(您出生之家庭)是 _____

16. 您的一家之主所得的最高文憑、學位或證書(對照前面的學齡)：

_____ 未完成高中以下程度

_____ 高中畢業

_____ 未完成大學預科/職業學校/CEGEP

_____ 大學預科/職業學校/CEGEP畢業

_____ 未完成大學

_____ 大學 -- 學士學位

_____ 大學 -- 碩士學位

_____ 大學 -- 博士學位

17. 您每年的收入大約是：(加元)

_____ 低於\$15,000

_____ \$15,000-\$35,000

_____ \$35,100-\$55,000

_____ \$55,100-\$75,000

_____ \$75,100-\$95,000

_____ \$95,000以上

18. 您的家庭(注：您出生的家庭) 每年的收入大約是：(加元)

_____ 低於\$15,000

_____ \$15,000-\$35,000

_____ \$35,100-\$55,000

_____ \$55,100-\$75,000

_____ \$75,100-\$95,000

_____ \$95,000以上

19. 您平日常用那種語言：

粵語 _____ 普通話 _____ 英語 _____ 法語 _____ 其它 _____

20. 您的第二語言：

粵語 _____ 普通話 _____ 英語 _____ 法語 _____ 其它 _____

21. 請在適當的空格內填上“√”以表明你大部分用英文讀的教育程度。

(A)

沒有 _____
小學 _____
初中 _____
高中 _____
大專 _____
職業學校 _____
大學 _____

22. 關於您的中學教育：

您在哪裡接受全部的中學教育？

香港 _____
加拿大 _____
其它地方 _____ 請注明 _____

或者

您是在香港進入初中，而後來在加拿大完成的？ _____

或者

您是在其它處進入初中，而後來在加拿大完成的？ _____

請明確您是在哪裡開始的 _____

23. 您的出生地是：國家 _____

24. 如果您不是在加拿大出生的，您在加拿大多久了？ _____年 _____月

25. 您在加拿大是（請選一個）

外國學生簽證 _____ 是 _____ 否
移民 _____ 是 _____ 否

26. 您在哪些國家住過？(請列出國家名稱)

27. 如果您不是在加拿大出生，在您來加拿大之前您住在哪裡？_____

28. 您在哪個國家住得最久？_____

29. 您現在的國籍是 _____

30. 您的宗教信仰是 _____

下面的問題是用來了解您認為什麼是您的文化。

最通常的文化指示是您出生的國家。但是，這不是每個人的情況。有的國家有多於一種的文化，比如，加拿大、印度、比利時。有的時候，人們不是在他們出生的國家裡長大的。另外，有些人是在以家庭關係而不是以國境來定義文化的國家裡長大。世界上許多土著居民就認為他們的文化與他們所在國家的文化不同。比如，在加拿大和澳洲的土著人。

31. 您認為您本身之文化與您出生之國家的文化有所不同嗎？

_____ 是 _____ 否

32. 如果您回答“是”，請寫出您認為自己是屬於那個文化_____

33. 您認為您的想法與以上(32題)文化中的典型想法有多相同？請在下面圈上適當的號碼以表明您的看法。

我的觀點根本不是這
文化的典型。

1

2

我的觀點是普通的，
但不典型。

3

4

我的觀點是屬於典型。

5



Concordia
UNIVERSITY

親愛的同學們：

多謝您協助完成實驗的第一部分。在今天，您將會進行實驗的第二部分。

讓我再次告訴您這實驗是本著完全自願和不記名的原則，而且您可以隨時停下來。您的所有回答均屬機密，僅用作統計分析的目的。信封和問卷上的編號只是方便我將您所完成的兩部分實驗放在一起。

在實驗結束時，請將問卷裝入信封內，並交回教授或實驗助理。現在，請轉下頁閱讀實驗第二部分節指示。

苑 毛弗力
博士生
商業管理系

米歇爾 拉繞弛
導師、市場學教授
康克迪亞大學

編號_____

實驗二

實驗指南

在第二部份廣告中的產品制造商正準備全球性地推出該產品。因此，該產品將很快在您附近的零售店中出售。基於其跨國營銷的性質，該廠家希望消費者對廣告作出回應。這正是這個實驗的目的所在，您的任務是對這廣告作出評價。當實驗助理講解完畢後，請將資料夾中的廣告抽出來，像平時閱讀您喜歡雜誌中的廣告一樣仔細閱讀它。這個程序非常重要，因為您需要對該產品及產品的廣告作出評價。

在您完成第三部分中所有的問題後，請將所有的資料裝入棕色的信封後交給實驗助理。在實驗過程中，請不要互相交談或參考他人的答卷，也不要修改答案。另外，因為我們不可能在一天裡請所有的參加者來做這個實驗，所以在實驗結束後，請您不要與其它人談及有關此實驗的事項，否則，實驗的可靠性會受到嚴重的影響。

請等待進一步的指示

現在，請仔細閱讀您已寫下的意念，然後根據下面不同的要求，對每一種意念歸類。

- 1) 請對你寫下的意念作正負程度歸類。請用數字標明您對各種意念的判斷。例如，3代表你寫下的意念是正面，-3代表你的意念是反面的，0代表你的意念是中性的。

最壞 印象	- 3	- 2	- 1	0	1	2	3	最好 印象
----------	-----	-----	-----	---	---	---	---	----------

請將您的判斷用數字形式標在上一頁的 I I 列空白處。

- 2) 請對你寫下的意念作重要程度歸類。請用數字來表明以上的意念是如何影響您對鋼筆的態度，以上的意念極影響您對這宣傳中的鋼筆所持的態度。

1	2	3	4
極不同意	不同意	同意	極同意

請將您的判斷用數字的形式標在上一頁的 I I I 列空白處。

2) 就您來看, 你相信TEKSCRIB有多少機會具有以下特點?

	很大機會					沒有機會	
	1	2	3	4	5	6	7
TEKSCRIB 具有華麗的外形	1	2	3	4	5	6	7
TEKSCRIB 有很好的握筆感受	1	2	3	4	5	6	7
TEKSCRIB 有不同的顏色	1	2	3	4	5	6	7
TEKSCRIB 有出色的書寫功能	1	2	3	4	5	6	7
TEKSCRIB 不斷墨、不化墨、不漏墨	1	2	3	4	5	6	7
TEKSCRIB 有廉價的注油管	1	2	3	4	5	6	7
TEKSCRIB 書寫如絲般流暢	1	2	3	4	5	6	7
TEKSCRIB 具有誘人的外表	1	2	3	4	5	6	7
TEKSCRIB 有粗幼不同的筆尖	1	2	3	4	5	6	7
TEKSCRIB 預計的零售價低於\$20	1	2	3	4	5	6	7
TEKSCRIB 有陶瓷筆尖	1	2	3	4	5	6	7
TEKSCRIB 有符合人體工程學的外型	1	2	3	4	5	6	7

3) 基於您對一種特定牌子的鋼筆的選擇(類似本廣告中宣傳的鋼筆), 請評價以下各種特徵對你選購和廣告中相似的鋼筆的重要性。

	極不重要							極為重要						
華麗	1	2	3	4	5	6	7	1	2	3	4	5	6	7
握筆的舒適感受	1	2	3	4	5	6	7	1	2	3	4	5	6	7
書寫表現	1	2	3	4	5	6	7	1	2	3	4	5	6	7
不斷墨, 不化墨, 不漏墨	1	2	3	4	5	6	7	1	2	3	4	5	6	7
注墨管的價格	1	2	3	4	5	6	7	1	2	3	4	5	6	7
書寫流暢	1	2	3	4	5	6	7	1	2	3	4	5	6	7
誘人的外形	1	2	3	4	5	6	7	1	2	3	4	5	6	7
高科技的筆尖	1	2	3	4	5	6	7	1	2	3	4	5	6	7
符合人體工程學的外型	1	2	3	4	5	6	7	1	2	3	4	5	6	7
不同粗細的筆尖	1	2	3	4	5	6	7	1	2	3	4	5	6	7
多種顏色	1	2	3	4	5	6	7	1	2	3	4	5	6	7
價格	1	2	3	4	5	6	7	1	2	3	4	5	6	7

4) 不針對這個特定牌子的鋼筆, 請表明您對與廣告中相似的鋼筆的態度?

非常差	1	2	3	4	5	6	7	非常好
極不偏愛	1	2	3	4	5	6	7	非常偏愛
極不喜歡	1	2	3	4	5	6	7	極喜歡

5) 請對TEKSCRIB做整體評價：

我完全不喜歡	1	2	3	4	5	6	7	我非常喜歡
極差的牌子	1	2	3	4	5	6	7	極好的牌子
極不滿意	1	2	3	4	5	6	7	極滿意
極不吸引人	1	2	3	4	5	6	7	極吸引人

請解釋您是怎樣做出以上的總體判斷的：

6) 您對於TEKSCRIB的書寫表現有何評價？

最差表現	1	2	3	4	5	6	7	最好表現
極不滿意	1	2	3	4	5	6	7	極滿意
我極不喜歡	1	2	3	4	5	6	7	我極喜歡

請解釋您是如何對TEKSCRIB的書寫表現做出判斷的：

7) 您怎樣評價廣告信息的質量(即產品推銷商在向您傳遞他/她的想法時所用的詞句和形象)?

極沒有說服力	1	2	3	4	5	6	7	極有說服力
極薄弱	1	2	3	4	5	6	7	極有力

8) 您認為產品推銷商:

非常不誠實	1	2	3	4	5	6	7	非常誠實
完全不值得信任	1	2	3	4	5	6	7	完全值得信任
完全不誠懇	1	2	3	4	5	6	7	完全誠懇
完全不可信	1	2	3	4	5	6	7	完全可信
有極大偏見	1	2	3	4	5	6	7	絕無偏見

9) 您認為這份有關TEKSCRIB的廣告:

極差	1	2	3	4	5	6	7	極好
極不令人喜愛	1	2	3	4	5	6	7	極令人喜愛
極不打動人心	1	2	3	4	5	6	7	極打動人心
毫無趣味	1	2	3	4	5	6	7	極有趣味

10) 您對TEKSCRIB的吸引力有何評價?

極不吸引	1	2	3	4	5	6	7	極吸引
極難看	1	2	3	4	5	6	7	極好看
毫不優雅	1	2	3	4	5	6	7	極優雅

1 1) 請對廣告中關於TEKSCRIB的特徵之論據作出評價：

完全含糊 不能明白	1	2	3	4	5	6	7	直接了當 容易明白
毫無意義	1	2	3	4	5	6	7	僅有一個可能的含義
極矛盾	1	2	3	4	5	6	7	無懈可擊
完全不清晰	1	2	3	4	5	6	7	完全清晰

1 2) 您認為產品推銷商對您作出了何等程度的壓力？

極高的壓力	1	2	3	4	5	6	7	極低的壓力
極為過分	1	2	3	4	5	6	7	毫不過分
極強迫	1	2	3	4	5	6	7	毫不強迫

1 3) 請在適當的數字上劃圈以表明您對廣告中有關鋼筆性能的信息的關注程度：

我對廣告中有關 鋼筆性能的信息 毫不關注	1	2	3	4	5	6	7	我對廣告中有關 鋼筆性能的信息 非常關注
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1 4) 當您有購買鋼筆機會時，您認為有多少機會購買TEKSCRIB？

一定不會買	1	2	3	4	5	6	7	一定會買
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1 5) 您認為這個廣告的可信程度（即產品推銷商在向您傳遞他/她的想法時所用的詞句和形象）如何？

完全不可信	1	2	3	4	5	6	7	絕對可信
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16) 當閱讀和評價這份廣告時，您是：

極不投入	1	2	3	4	5	6	7	極投入
非常不集中	1	2	3	4	5	6	7	非常集中
全不留意	1	2	3	4	5	6	7	極留意

17) 如果您在一本雜誌中看到這份廣告，您是否會閱讀整篇廣告或其中的語句？

極不可能	1	2	3	4	5	6	7	極可能
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18) 您感覺這份廣告提供了多少資料？

很少	1	2	3	4	5	6	7	很多
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19) 您認為這廣告中的資料對您有多少用處？

幾乎没用	1	2	3	4	5	6	7	極有用
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20) 針對於其注油管的價格，您對於TEKSCRIB有何評價？

價格昂貴	1	2	3	4	5	6	7	價格低廉
價格過高	1	2	3	4	5	6	7	價格過低
買不起	1	2	3	4	5	6	7	買得起

請解釋您是怎樣對TEKSCRIB注油管的價格做出判斷的：

2 1) 你認為那些廣告人對此鋼筆的認識有多深？

毫無經驗	1	2	3	4	5	6	7	極有經驗
極不了解產品	1	2	3	4	5	6	7	非常了解
不是專家	1	2	3	4	5	6	7	專家

2 2) 產品推銷商對TEKSCRIB的介紹是否屬實？

極不屬實	1	2	3	4	5	6	7	極屬實
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23. 為什麼你喜歡/不喜歡這個Tekscrib廣告？請於下面寫出你的原因。

第三章

1) 下面的句子是對這類優質鋼筆（類似於廣告中的鋼筆）或您購買這類筆的決策的描述。請在適當的號碼上劃圈以表明您對這些描述的同意程度。

	極不 同意	較不 同意	稍不 同意	中 性	稍 同意	較 同意	極 同意
當選擇這種筆時，您不在意有失誤。	1	2	3	4	5	6	7
如果買了支不合適的筆，感到非常惱火。	1	2	3	4	5	6	7
如果買了這種筆後，認為這選擇是錯誤的，我感到非常惱火。	1	2	3	4	5	6	7
無論誰買這種筆，都不會清楚是否應該買。	1	2	3	4	5	6	7
當我面對許多同類的鋼筆時，我不知如何做選擇。	1	2	3	4	5	6	7
選擇這種筆是一件很複雜的事。	1	2	3	4	5	6	7
當買這種筆時，對自己的選擇沒有把握。	1	2	3	4	5	6	7
能從一個人選擇的筆而對其人有所了解。	1	2	3	4	5	6	7
從我買的筆可見我這類人之一瞥。	1	2	3	4	5	6	7
您買的筆能對您有所詮釋。	1	2	3	4	5	6	7
買這類筆給我一種愉快的感覺。	1	2	3	4	5	6	7
買這類筆就象給我自己買一份禮物。	1	2	3	4	5	6	7
這類筆給我一種快感。	1	2	3	4	5	6	7
我很看重這種筆。	1	2	3	4	5	6	7
可以說我對這種筆很感興趣。	1	2	3	4	5	6	7
我對這類筆漠不關心。	1	2	3	4	5	6	7

2) 一般說來，您認為您是否熟悉這類優質鋼筆？

很不熟悉 1 2 3 4 5 6 7 很熟悉

3) 您認為您非常了解這類優質鋼筆嗎？

很不了解 1 2 3 4 5 6 7 很了解

4) 您使用廣告中描述的那類筆嗎？

是 _____ 否 _____

如果您回答“是”，請回答第5題。否則，請直接回答第6題。

5) 您使用這類筆的經常程度？

每天的工作或學習中 _____

偶爾（在寫個人信件或簽署重要文件時）_____

很少 _____

6) 如果您要為自己買一支優質鋼筆，您將在下面的哪一個價格區域中做選擇？(加幣)

低於\$10 _____

\$10 - 29 _____

\$30 - 59 _____

\$60 - 100 _____

高於\$100 _____

第四章

1. 在這個問題裡，我們想要了解您是否觀察到廣告中鋼筆的兩種不同特性之間的關係。

在下面的第一行中，(A)或(B)分別標記着鋼筆的兩種不同特性。在其右面另有三行，它們是用來記錄您對前面兩種鋼筆特性之間關係的判斷（有某種關係或根本無關係）。

如果您感到鋼筆的兩種特性之間有關係，請閱讀第二行中的選擇並在適當的空位上劃“X”。如果您感到鋼筆的兩種特性之間無關係，請在第三行中劃“X”。如果您因不熟悉鋼筆而無法判斷(A)和(B)之間的關係，請在第四行中劃“X”。下面這個有關汽車的例子會幫助你去了解如何回答這些問題。

1	2	3	4
(A) 引擎容量	發動機越大，耗油量：	無關係	不了解汽車
(B) 省油	增加 _____	_____	_____
	減少 X		

在上面的例子中，如果您認為發動機越大，耗油量越低，如例子所示，您將在“減少”後劃“X”。

現在，請對鋼筆不同性能之間的關係做出判斷。

1	2	3	4
(A) 外表	外表越好，書寫流暢度越：	無關係	不很了解鋼筆
(B) 書寫流暢	提高 _____	_____	_____
	減弱 _____		
(A) 筆形	筆形越適合手形，	無關係	不很了解鋼筆
(B) 握筆舒適	握筆舒適度越：		
	提高 _____	_____	_____
	減弱 _____		
(A) 注油管的價格	油管價格越高，書寫功	無關係	不很了解鋼筆
(B) 書寫表現	能越：		
	提高 _____	_____	_____
	減弱 _____		

2. 您認為您對廣告中的漢語的理解程度如何？

- _____ 我對於漢語的理解毫無問題。我明白所有的內容。
- _____ 有幾個字我不明白。但是，我明白整體的內容。
- _____ 有很多字我不明白。我僅明白部分的內容。
- _____ 我根本不明白。

3. 整體上，您認為您對漢語問卷的理解程度如何？

- _____ 我對於漢語問卷的理解毫無問題。我明白了每個問題。
- _____ 有幾個問題我不明白。
- _____ 有很多問題我不明白。我感到明白漢語問題很困難。
- _____ 我根本不明白。

4. 您認為您對實驗助理給您的指南的理解程度如何？

- _____ 我對於漢語指南的理解毫無問題。我明白了每個指示。
- _____ 有幾個指示我不明白。
- 請指明您不明白什麼：
- _____
- _____ 有很多指示我不明白。我很難理解實驗助理的指示。
- _____ 我根本不明白。

5. 您認為這個實驗的目的是什麼？請簡要說明。

問卷結束

多謝您的合作

APPENDIX E

Judges' Coding Sheets for Cognitive Responses

Appendix F

Composite Classifications of Cognitive Responses

INSTRUCTIONS FOR GENERATING VARIOUS CLASSES OF COGNITIVE

RESPONSES AND FAVORABILITY SCORES FROM JUDGES' CODING SHEETS

Note: in all the following rules for generating the various cognitive responses, count only the relevant CRs.

1A- Counterarguments:

In the counterarguments (and support arguments) listed below, omit the global liking/disliking and curiosity thoughts

a) low-level - NLLPROD

Count the cognitive responses which are **targeted** at the **product** or **product class** and which are **message originated** and **negative** in polarity.

b) self-modified - NSMPROD

Count the cognitive responses which are **targeted** at the **product** or **product class** and which are **modified-message** in origin and negative in polarity.

c) self-originated - NSOPROD

Count the cognitive response which are targeted at the **product** or **product class** and which are **recipient-cognitive** in origin and negative in polarity.

1B- These are the same types of cognitive responses as described above, but where the thoughts are positive. The labels used will be as follows:

- a) low-level - PLLPROD
- b) self-modified - PSMPROD
- c) self-originated - PSOPROD

2A- Source Derogations

In all the source derogations (or bolsters) listed below, omit the global liking/disliking and curiosity thoughts.

I- Derogations targeted to the advertisement:

- a) low-level - NLLAD

Count the cognitive responses which are targeted at the advertisement, and which have the message as origin and are negative in polarity.

- b) self-modified - NSMAD

Count the cognitive responses which are targeted at the advertisement, and which are modified-message in origin and which are negative in polarity.

- c) self-originated - NSOAD

Count the cognitive responses which are targeted at the advertisement, which are recipient-cognitive in origin and which are negative in polarity.

II- Derogations which are targeted at the source/advertiser

a) low-level - NLLSOURC

Count the cognitive responses which are targeted at the source/advertiser, which are message originated and which are negative in polarity.

b) self-modified - NSMSOURC

Count the cognitive responses which are targeted at the source/advertiser, which are modified-message in origin and which are negative in polarity.

c) self-originated - NSOSOURC

Count the cognitive responses which are targeted at the source/advertiser, which are recipient-cognitive in origin and which are negative in polarity.

III- Total source derogations - these represent the sum of the above two classes of cognitive responses.

a- low level-	TOTLLSD	= \sum NLLAD + \sum NLLSOURC
b- self-modified-	TOTSMSD	= \sum NSMAD + \sum NSMSOURC
c- self-originated-	TOTSOSD	= \sum NSOAD + \sum NSOSOURC

2B- Source Bolsters

These are the same as the classes of source derogations described above, but positive in polarity.

In all the source derogations or bolsters listed below, omit the global liking/disliking and curiosity thoughts.

I- Bolsters targeted to the advertisement:

a) low-level - PLLAD

Count the cognitive responses which are targeted at the advertisement, and which are message originated and which are positive in polarity.

b) self-modified -PSMAD

Count the cognitive responses which are targeted at the advertisement, and which are modified-message in origin and which are positive in polarity.

c) self-originated - PSOAD

Count the cognitive responses which are targeted at the advertisement, and which are recipient-cognitive in origin and which are positive in polarity.

II- Bolsters which are targeted at the source/advertiser

a) low-level - PLLSOURC

Count the cognitive responses which are targeted at the source/advertiser, and which are message originated and which are positive in polarity.

b) self-modified - PSMSOURC

Count the cognitive responses which are targeted at the source/advertiser, and which are modified-message in origin and which are positive in polarity.

c) self-originated - PSOSOURC

Count the cognitive responses which are targeted at the source/advertiser, and which are recipient-cognitive in origin, and which are positive in polarity.

III- Total source bolsters - These represent the sum of the above two classes of CRs.

$$\begin{array}{lll}
 \text{a- low-level-} & \text{TOTLLBOL} & = \sum \text{PLLAD} + \sum \text{PLLSOURC} \\
 \text{b- self-modified-} & \text{TOTSMBOL} & = \sum \text{PSMAD} + \sum \text{NSMSOURC} \\
 \text{c- self-originated-} & \text{TOTSOBOL} & = \sum \text{PSOAD} + \sum \text{PSOSOURC}
 \end{array}$$

3- Curiosity Thoughts - CCR

These are all curiosity thoughts targeted at the product.

4- Product-Advertisement Combi

Note: Omit the global liking/disliking and curiosity thoughts.

4A- Negative product-ad combi cognitive responses

a) low-level- NLLCOMBI

Count the cognitive responses which are targeted at the product-ad combis, and which are message originated and negative in polarity.

b) self-modified - NSMCOMBI

Count the cognitive responses which are targeted at the product-ad combis, and which are modified-message in origin and negative in polarity.

c) self-originated - NSOCOMBI

Count the cognitive responses which are targeted at the product-ad combis, and which are recipient-cognitive in origin and negative in polarity.

4B- Positive product-ad combi cognitive responses

a) low-level - PLLCOMBI

Count the cognitive responses which are targeted at the product-ad combis, and which are message originated and positive in polarity.

b) self-modified - PSMCOMBI

Count the cognitive responses which are targeted at the product-ad combis, and which are modified-message in origin and positive in polarity.

c) self-oroginated - PSOCOMBI

Count the cognitive responses which are targeted at the product-ad combis, and which are recipient-cognitive in origin and positive in polarity.

CLASS 1 FAVORABILITY SCORES

1- Using only the counterarguments and support arguments defined by Wright (1973b):

Favorability score 1 low-level index	= FSLL1 =	$\sum \text{PLLPROD} - \sum \text{NLLPROD}$
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Favorability score 1 low-level (index with fluency correction)	= FSLL1F =	$\frac{\sum \text{PLLPROD} - \sum \text{NLLPROD}}{\sum \text{PLLPROD} + \sum \text{NLLPROD}}$
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Favorability score 1 self-modified index	= FSSM1 =	$\sum \text{PSMPROD} - \sum \text{NSMPROD}$
---	-----------	---

$$\begin{array}{l} \text{Favorability score 1} \\ \text{Self-modified} \\ \text{(Index with fluency} \\ \text{correction)} \end{array} = \text{FSSM1F} = \frac{\sum \text{PSMPROD} - \sum \text{NSMPROD}}{\sum \text{PSMPROD} + \sum \text{NSMPROD}}$$

$$\begin{array}{l} \text{Favorability score 1} \\ \text{self-originated index} \end{array} = \text{FSSO1} = \sum \text{PSOPROD} - \sum \text{NSOPROD}$$

$$\begin{array}{l} \text{Favorability score 1} \\ \text{self-originated} \\ \text{(index with fluency} \\ \text{correction)} \end{array} = \text{FSSO1F} = \frac{\sum \text{PSOPROD} - \sum \text{NSOPROD}}{\sum \text{PSOPROD} + \sum \text{NSOPROD}}$$

CLASS 2 FAVORABILITY SCORES

2- Using SAs, CAs, Ad derogations, Ad bolsters, + positive and negative Combis.

$$\begin{array}{l} \text{Fav. score 2} = \text{FSLL2} = (\sum \text{PLLPROD} + \sum \text{PLLAD} + \sum \text{PLLCOMBI}) - (\sum \text{NLLPROD} + \sum \text{NLLAD} + \sum \text{NLLCOMBI}) \\ \text{low level index} \end{array}$$

$$\begin{array}{l} \text{Fav. score 2} = \text{FSLL2F} = \frac{(\sum \text{PLLPROD} + \sum \text{PLLAD} + \sum \text{PLLCOMBI}) - (\sum \text{NLLPROD} + \sum \text{NLLAD} + \sum \text{NLLCOMBI})}{\sum \text{PLLPROD} + \sum \text{PLLAD} + \sum \text{PLLCOMBI} + \sum \text{NLLPROD} + \sum \text{NLLAD} + \sum \text{NLLCOMBI}} \\ \text{low level} \\ \text{(index with} \\ \text{fluency correction)} \end{array}$$

$$\begin{array}{l} \text{Fav. score 2} = \text{FSSM2} = (\sum \text{PSMPROD} + \sum \text{PSMAD} + \sum \text{PSMCOMBI}) - (\sum \text{NSMPROD} + \sum \text{NSMAD} + \sum \text{NSMCOMBI}) \\ \text{self-modified index} \end{array}$$

$$\begin{array}{l} \text{Fav. score 2} = \text{FSSM2F} = \frac{(\sum \text{PSMPROD} + \sum \text{PSMAD} + \sum \text{PSMCOMBI}) - (\sum \text{NSMPROD} + \sum \text{NSMAD} + \sum \text{NSMCOMBI})}{\sum \text{PSMPROD} + \sum \text{PSMAD} + \sum \text{PSMCOMBI} + \sum \text{NSMPROD} + \sum \text{NSMAD} + \sum \text{NSMCOMBI}} \\ \text{self-modified} \\ \text{(index with} \\ \text{fluency correction)} \end{array}$$

$$\text{Fav. score 2} = \text{FSSO2} = (\sum \text{PSOPROD} + \sum \text{PSOAD} + \sum \text{PSOCOMBI}) - (\sum \text{NSOPROD} + \sum \text{NSOAD} + \sum \text{NSOCOMBI})$$

self-originated index

$$\text{Fav. score 2} = \text{FSSO2F} = \frac{(\sum \text{PSOPROD} + \sum \text{PSOAD} + \sum \text{PSOCOMBI}) - (\sum \text{NSOPROD} + \sum \text{NSOAD} + \sum \text{NSOCOMBI})}{\sum \text{PSOPROD} + \sum \text{PSOAD} + \sum \text{PSOCOMBI} + \sum \text{NSOPROD} + \sum \text{NSOAD} + \sum \text{NSOCOMBI}}$$

self-originated
(index with
fluency correction)

CLASS 3 FAVORABILITY SCORES

3 - Using the summation of all the self-relevance levels.

Compute the following cognitive responses which represents the summation of all the above cognitive response levels.

$$\text{Fav. score 3} = \text{FGLB3} = \left\{ \begin{array}{l} (\sum \text{PLLPROD} + \sum \text{PLLAD} + \sum \text{PLLCOMBI}) \\ (\sum \text{PSMPROD} + \sum \text{PSMAD} + \sum \text{PSMCOMBI}) \\ (\sum \text{PSOPROD} + \sum \text{PSOAD} + \sum \text{PSOCOMBI}) \end{array} \right\} - \left\{ \begin{array}{l} (\sum \text{NLLPROD} + \sum \text{NLLAD} + \sum \text{NLLCOMBI}) \\ (\sum \text{NSMPROD} + \sum \text{NSMAD} + \sum \text{NSMCOMBI}) \\ (\sum \text{NSOPROD} + \sum \text{NSOAD} + \sum \text{NSOCOMBI}) \end{array} \right\}$$

global index

TOT. POSITIVE CRS
TOT. NEGATIVE CRS

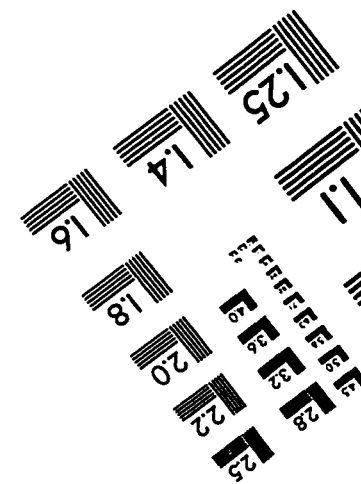
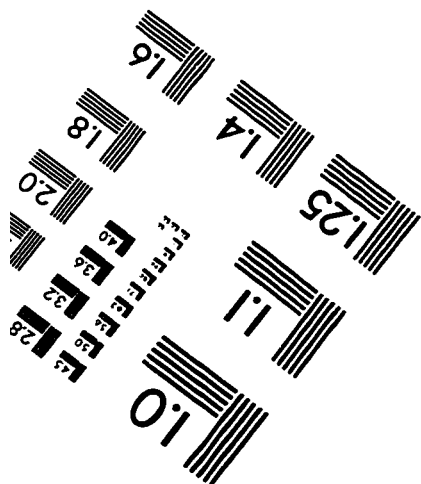
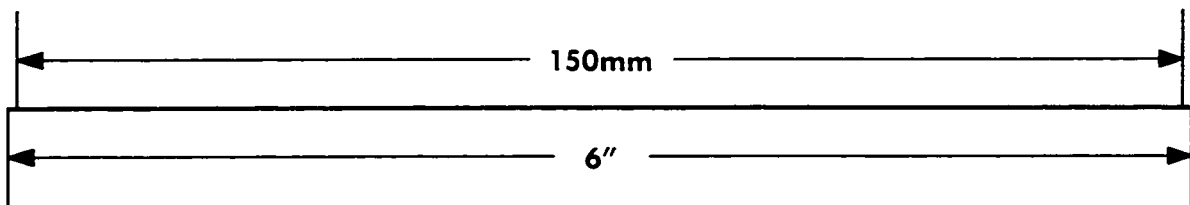
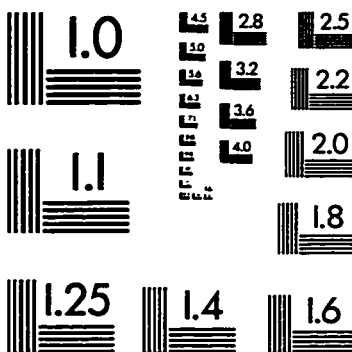
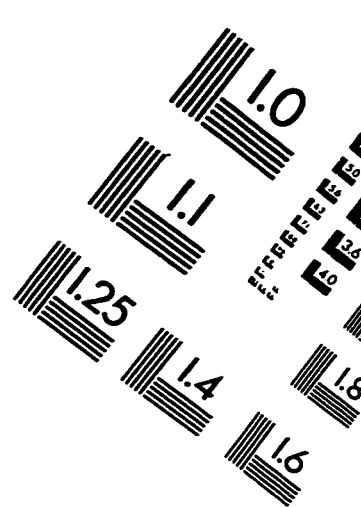
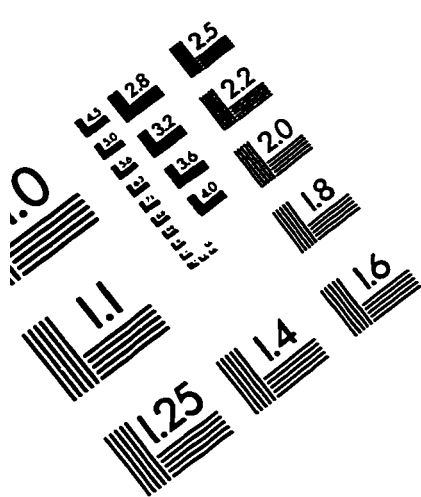
$$\text{Fav. score 3} = \text{FGLB3F} = \left\{ \begin{array}{l} (\sum \text{PLLPROD} + \sum \text{PLLAD} + \sum \text{PLLCOMBI}) \\ (\sum \text{PSMPROD} + \sum \text{PSMAD} + \sum \text{PSMCOMBI}) \\ (\sum \text{PSOPROD} + \sum \text{PSOAD} + \sum \text{PSOCOMBI}) \end{array} \right\} - \left\{ \begin{array}{l} (\sum \text{NLLPROD} + \sum \text{NLLAD} + \sum \text{NLLCOMBI}) \\ (\sum \text{NSMPROD} + \sum \text{NSMAD} + \sum \text{NSMCOMBI}) \\ (\sum \text{NSOPROD} + \sum \text{NSOAD} + \sum \text{NSOCOMBI}) \end{array} \right\}$$

global
(index with
fluency correction)

TOT. POSITIVE CRS
+
TOT. NEGATIVE CRS

NOTE: Additional sets of favorability scores for class 2 and class 3 cognitive responses were generated so as to also include thoughts targeted to the source. This increased somewhat the number of cognitive responses retained for the analysis. The favorability scores can be distinguished from the others by the presence of a "B" suffix in their labels, eg. FSSM2FB.

IMAGE EVALUATION TEST TARGET (QA-3)



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