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MESSAGE VARIATION AND SOURCE CREDIBILITY
IN ADVERTISING

VOLUME TWO

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CHAPTER FIVE

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IN ADVERTISING**

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INTRODUCTION

In the previous chapters, an attempt was made to explain how advertising as a persuasive communication process can both influence the consumer's purchasing behaviour and induce resistance to competitive persuasive advertising.

However, this persuasive power of advertising is thought to be influenced by several factors, the most important of which is the source's credibility. This chapter therefore focuses on source credibility and its persuasive effect. To accomplish this task, the following issues will be addressed:-

- (1) Defining the concept of source credibility.
- (2) The basic dimensions of source credibility.
- (3) The persuasive effect of source credibility:
 - The main persuasive effect
 - The interactive persuasive effect of source credibility and other variables
- (4) The "sleeper" effect of the persuasiveness of source credibility.
- (5) Explaining the persuasive effect of source credibility: a cognitive response theory approach.
- (6) Summary and conclusion.

Each of these issues will be discussed in turn as follows.

SECTION 1: DEFINING THE CONCEPT OF SOURCE CREDIBILITY

A great deal of the literature concerning source credibility comes within the context of social psychology. The concept of source credibility has been defined differently by different scholars. Aristotle discussed the concept of source credibility over 2000 years ago. He stated:

"Persuasion is achieved by the speaker's personal character when the speech is so spoken as to make us think him credible. We believe good men more fully and more readily than others." [1]

Aristotle defined high credibility as "a favourable disposition of a receiver towards the source." He stated three characteristics which inspire credibility in the orator's (or spokesperson's) own character. The three qualities are: good will, good moral character, and good sense as perceived by the receivers. These qualities are thought to induce people to believe a source apart from any proof of what it communicates [2].

Thus, while Aristotle emphasised the notion that credibility represents a personal characteristic of the source, he acknowledged in his definition that the concept of source credibility is a perceptual one. This suggests that the degree to which a source can be successful in inducing the receiver's acceptance of the advocated argument depends considerably upon how credible the source is perceived by the receiver.

From Aristotle's time until the present day, many definitions of source credibility have been offered by scholars. In Webster's Dictionary, source credibility is defined as "the quality or power of inspiring belief." [3] By definition, the contextual meaning of credibility seems to be similar to that implied in

Aristotle's definition of source credibility.

Hovland and his associates [4] defined source credibility as "the extent to which a communicator is perceived to be a source of valid assertions (his "expertness") and the degree of confidence in the communicator's intent to communicate the assertions he considers most valid (his "trustworthiness")."

In this sense, source credibility is viewed as the extent to which a source is perceived by a receiver as capable of transmitting valid and confident statements about a certain subject matter. In other words, "an agent may be perceived as possessing credibility because he is likely to know the truth, or because he is likely to tell the truth." [5]

In his tricomponential analysis of source characteristics Kelman [6] distinguished between three major components that can enhance the persuasiveness of the source. These are: credibility, attractiveness, and power.

Kelman considered credibility as a source of power of the influencing agent which induces internalisation in the receiver. This psychological mode can be said to occur when the receiver agrees to behave in the intended manner if this behaviour is congruent with his value system. "The individual adopts it (ie. the behaviour) because he finds it useful for the solution of a problem, or because it is congenial to his own orientation, or because it is demanded by his own values - in short, because he perceives it as inherently conducive to the maximisation of his values." [7]

Kelman adds, "The most obvious examples of internalisation are those that involve the evaluation and acceptance of induced behaviour on rational grounds. A person may adopt the recommendations of an expert, for example, because he finds them

relevant to his own problems and congruent with his own values. Typically, though, the receiver will not totally accept the source's conclusions, but rather will modify them to some degree so that they will fit his own unique situation."

Thus, according to Kelman's analysis of source credibility, to the extent that the source is perceived as having high credibility, the arguments he introduces are learned and recalled, and the conclusions are integrated into the belief and value system of the target receiver. Kelman concluded that "an agent possesses credibility if his statements are considered truthful and valid, and hence worthy of serious consideration."

[8]

Ross [9] defined source credibility as referring to "the receiver's or audience's acceptance of or disposition toward the source." In the marketing communications context, DeLozier [10] pointed out that "the degree to which a communicator will be successful in persuading an audience to accept his views depends considerably upon how credible the audience perceives him to be." The author emphasised that what is important is not whether the source is objectively credible, but whether the audience perceives him as credible. However, DeLozier did not provide any definition of credibility.

In the same spirit, Bettinghaus [11] confirmed the perceptual dimension of source credibility. The author defined source credibility as "a set of perceptions about sources held by receivers." Moreover, Bettinghaus suggested that credibility is not a single characteristic of an individual, such as age or sex, nor is it represented by a set of characteristics such as

socio-economic position, but is a multidimensional concept.*

Percy and Rossiter [12] defined source credibility as "the extent to which the source is perceived in relation to the communication content as knowing the right answer and as motivated to communicate."

"It follows that believability of the communication reflects the extent to which the message (via the source) is perceived by the receiver as being correct, and more particularly on the receiver's perception of the source as knowing what is correct and being motivated to communicate what he knows." [13]

Although Percy and Rossiter emphasise the importance of knowledge as a major dimension of credibility, they do not clarify the type of motivation which can arouse the person (ie. the communicator) to communicate what he knows. It could be said, however, that the source's credibility involves "the simple aspect of whether the source knew what he or she was talking about and was motivated to communicate it because it was truth rather than because of being paid to do so."

This view is consistent with the conclusion that if the receiver perceives any type of personal gain for the sender as a result of the proposed action or advice, the message may become suspect. Any prospect of personal gain for the sender immediately casts a veil of doubt upon his objectivity. "This may be the main reason why informal sources of communication (such as opinion leaders)

* The basic dimensions of source credibility will be discussed in the next section.

have a stronger influence on a receiver's behaviour or attitude than that produced by the formal sources of communication (such as spokespersons), since the former apparently have nothing to gain from the message transaction or the argument they advocate. Informal sources are considered totally objective and their intentions are perceived to be in the best interests of the receiver." [14]

Aaker and Myers [15] discussed the concept of source credibility within an advertising context. They viewed credibility as it refers to "the degree to which the source is perceived as being expert with respect to the product or thing being advertised and is essentially telling the truth regarding the claims made for the product." The authors added that "credibility is important because the receiver is most likely to internalise the message from a credible source." [16]

Emphasising the multidimensional nature of source credibility, Karlins and Abelson [17] stated that the components of source credibility "can be any number of factors (operating independently or in combination) that influence audience perception of the communicator's believability."

According to Crosier [18], "source credibility operates by evoking a response of "internalisation" on the audience's part: the source's perceived values and behaviour are accepted and in part adopted." It follows that perceived source credibility is a powerful mechanism which facilitates behavioural and attitudinal change.

On the other hand, Anderson [19] pointed out that source credibility is inherent in the receiver's perception and it involves his judgment that information communicated by a source is correct. In this context, the extent to which the source conveys correct information determines the reliability or

believability of the source.

Drawing upon the above definitions of source credibility, we can now introduce our own definition. Recognising that source credibility is inherent in the receiver's perception, the concept of source credibility refers to:

"The receiver's (or consumer's) perception that the source of the communication message (eg. advertisement) has sufficient knowledge to enable him to provide factual and reliable information concerning what he advocates (product, service, idea, etc) and wishes to promote to the receiver, and which represents what might be perceived as correct solutions to problems or needs. These solutions will be regarded as correct to the extent that the receiver perceives the source as knowledgeable and truthful, so that resulting actions can be carried out with confidence."

This definition emphasises the perceptual and multidimensional nature of credibility. Drawing upon this conclusion, the important question to be asked is, what are the dimensions of source credibility? In the following section we shall attempt to identify the salient characteristics of source credibility.

SECTION 2: THE BASIC DIMENSIONS OF SOURCE CREDIBILITY

As indicated in the previous section, source credibility does not consist of a single characteristic. Rather it is composed of several dimensions. The multidimensionality of source credibility seemed clear even in Aristotle's view, discussed earlier, and it was emphasised in almost all his writing on the subject. In the idiom of the modern scholars, Aristotle's terms of 'good will,' 'good moral character,' and 'good sense,' have been translated into 'good intentions,' 'trustworthiness,' and 'competence' or 'expertness.' In the following pages, we shall examine separately some of the basic dimensions of source credibility.

(1) TRUSTWORTHINESS

One dimension of source credibility is "how trustworthy an audience perceives the source to be." [20] To the extent that a receiver of the message perceives the source of the message (or the communicator) as trustworthy or honest, the source will be more successful in persuading the receiver to adopt or accept the message advocated.

Hovland and his associates [21] defined trustworthiness as referring to "the extent to which the receiver is confident in the source's intent to communicate the assertions he (ie. the receiver) considers most valid." In this context, if the receiver perceives that the source has underlying motives, especially ones which will benefit the source personally, the receiver will be less susceptible to the persuasive attempt by the source. The authors stated, "One of the most general hypotheses is that when a person is perceived as having a definite intention to persuade others, the likelihood is increased that he will be perceived as having something to gain

and, hence, as less worthy of trust." [22]

The question of the receiver's perception of a source's intent appears to be a critical factor in determining the source's trustworthiness. The receiver's perceptions of a source's intent were manipulated in a study conducted by Allyn and Festinger [23]. A persuasive communication (a speech) was prepared on the topic of raising the minimum age for driving. Subjects who were teenagers were given the speech under two experimental conditions. Under the first condition, the subjects were told that the purpose of the message was to study the source's personality. Under the second condition, another group of teenagers were told that the source considered teenage drivers a menace. In the first situation the source's intention to persuade was blunted, while in the second, it was made clear. The results of the study revealed that the members of the second group perceived the source of the communication as more biased. They also indicated that the members of the first group underwent a greater attitude change in the direction advocated by the source.

Settle and Golden [24] suggested that the concept of source credibility is built upon a number of factors, the most important of which is the perceived intention of the source. If the receiver suspects any type of personal gain for the source of the communication as a result of his action or advice, the message may become suspect, and the source will be perceived as less credible. In this regard, the researchers stated that "if the message is attributed to the advertiser's desire to sell, the consumer would be uncertain about the actual characteristics of the brand and the probability of her purchasing it would be expected to decrease."

DeLozier [25] emphasised the importance of the perceived source's intention as a major determinant of the source's trustworthiness.

He suggested that "a communicator must establish that he is not in any way attempting to manipulate his audience, that he has nothing to gain by his persuasive attempt, and that he is objective in his presentation. By so doing, he establishes himself as trustworthy and, therefore, credible."

However, trustworthiness refers to more than the receiver's perception of the source's intention. As Berlo and his associates [26] suggested, trustworthiness refers to the receiver's perception of how honest, just, ethical, sincere, unselfish, and friendly a communicator is. They used the term 'safety' as being "more general than the trustworthiness dimension because it includes a general evaluation of the affiliative relationship between the source and the receiver as perceived by the receiver." [27]

Consistent with this view, Ross [28] suggested that the source's trustworthiness is based on more than his perceived intent. It is related to factors such as the status, knowledge and sincerity of the source in performing his role. Trustworthiness is also related to the source's reliability and reputation [29] and the receiver's first impression about the source.

In a recent study of the effects of the receiver's first impressions and the reliability of promises based on trust and co-operation, Fernandez and her associates [30] argued that "connotative impressions may be used by a receiver as a basis for attributing benevolence or malevolence to source of influence. If this interpretation is correct, and initial impression of source as good and impotent should lead a receiver to attribute benevolence to him (ie. the source) and hence increase the believability of his promises. When a receiver forms an impression of a source as bad and potent, malevolent intentions

should be attributed to him, and his promises should be less believable."

In their study, the researchers tested the hypothesis that "when situational cues are ambiguous subjects will rely heavily upon first impressions of the source of information." In determining the extent to which a receiver can trust the source and co-operate with him, the researchers operationalised trust as "performing a cooperative response after receiving a promise from another person (who was a stranger)." This operational definition followed the assumption that "trust is a reliance upon information received from another person about uncertain environmental states and their accompanying outcomes in a risky situation." [31]

The results of the study indicated that "initial impressions of strangers on evaluative and potency dimensions have a strong impact on targets' trusting and cooperative responses. When the initial impression of strangers was good-impotent and they established high reliability for promises, subjects displayed high initial trust by cooperating more often in response to promises. When the initial impression of strangers was bad-potent, or when sources failed to keep their word, subjects displayed considerable initial distrust."

However, the analysis of subjects' overall trusting behaviour revealed that the impact of source reliability paired with the first impressions founded on initial trust decreased with the passage of time.

In explaining their results, the researchers stated that "the strong impact of impressions on targets' trusting behaviour may have been mediated by attributions of intent ... Presumably, attributions of benevolent intentions induces trust, while an inference that sources have malevolent intentions induces

distrust." This suggests the importance of the perceived source intention in determining the receiver's perception of source trustworthiness.

Although the study provides explanatory ideas about the mechanism by which a receiver judges the trustworthiness of the source, and the mediating role of the attributional processes in making this judgment, it suffered from major methodological weaknesses. Firstly, in their measurement of the trusting behaviour, the researchers relied totally upon co-operation as a major determinant of trust without considering the other dimensions which may influence the receiver's perception of the source's trustworthiness, such as sincerity, objectivity, justice, or honesty, though the researchers admitted the possibility of the mediating role played by attributions of intent in inducing trust. Secondly, the researchers depended on the conceptual definition of trust stating that trust is 'a reliance upon information received from another person about certain environmental states and their accompanying outcomes in a risky situation,' in operationalising the co-operative behaviour. This operationalisation is based on the assumption that the attributional processes about the trustworthiness are not expected to be made in those situations where the perceived risk is low. Indeed, this restricts the external validity (ie. the generalisability) of the findings of the study.

In addition, source trustworthiness may not be simply a function of the source's abstract characteristics, but might be dependent upon the interaction of those characteristics and the nature of the communication. Walster and his associates [32] found that the source was perceived as more trustworthy when arguing for a position that is opposed to his best interests. The researchers concluded that advertisers, who may be perceived as low credibility sources, might be able to enhance their trustworthiness by acknowledging minor shortcomings of their products.

In advertising, a consumer always perceives a certain level of intention to persuade associated with his first impression about the source of the advertising message (eg. the spokesman). While it seems to be difficult to eliminate such perceptions, one way in which advertisers attempt to increase the likelihood that a consumer perceives the source of advertisement as trustworthy is by using 'candid' interviews with homemakers who are asked to explain why they have purchased the company's brand [33]. The main purpose of this technique is to establish the impression that the source of the advertisement has nothing to gain personally and is objective in the consumer's mind.

However, Crosier [34] suggested that the persuasive attempts which underly an explicit persuasive intention are more effective in inducing the persuasion (attitude or behaviour change) than the more 'commonsense' notion of minimising persuasive intent. This conclusion can be attributed to the fact that persuasion is not only a function of the receiver's perception of the source's intention to persuade. Rather, it is a function of many factors, some of which are related to the source per se, the others being related to the message, receiver, media, or the situation.

However, Crosier's suggestion has not been tested in a marketing context, and "it would be a rash marketing communicator who adopted a deliberate low-credibility strategy." [35]

(2) EXPERTISE

It has generally been found that "the more a source is perceived as expert, the greater the persuasive impact of the message on the receiver." [36] Expertise refers to "the extent to which a communicator is perceived to be a source of valid assertions." [37] Expertise can also be of a more general nature. A variety of characteristics of the source of communication may evoke

attitudes related to expertise. The perceived expertise of the source may be derived from appearing better educated or of higher social status or professional occupation not specifically related to the communication issue [38]. However, expertise is operationalised by describing the source in a manner designed to connote the desired characteristics or attributes relevant to the communication issue. For instance, Sternthal and his associates [39] described the source as being a Harvard-trained lawyer with considerable experience of the communication issue and being recognised as an expert whose advice was widely sought.

In general, "the audience perceives the 'expert' speaker as one who has the appropriate education, information, or knowledge to discuss a topic. A source whom an audience perceives as an expert on a given subject is more persuasive in changing audience opinions pertaining to his area of expertise than a source whom an audience does not perceive as possessing the same characteristic." [40]

Expertise represents one of the most important bases of social power [41]. According to French and Raven [42], "the strength of the expert power varies with the extent of the knowledge or perception which (P) attributes to (O) within a given area. Probably (P) evaluates (O's) expertness in relation to his own knowledge as well as against an absolute standard. In any case expert power results in primary social influence on (P's) cognitive structure and probably not on other types of systems."

However, French and Raven argued that expert power has two major dimensions: credibility and information. While the former involves the source of the message, the latter involves the message itself.

Thus, it could be said that expertise is based on the receiver's perception that the communicator has valuable knowledge,

information, or skills in a relevant area.

In a marketing communication context, expertise refers to whether "the receiver (ie. the prospective consumer) perceives the source (ie. the spokesperson) as a knowledgeable person, someone who should know about the product." [43]

It seems clear that the relevance of the knowledge to the topic about which the communicator talks constitutes a major dimension of the receiver's perception of the source's expertise. In this regard, Crosier [44] stated that "Expertise must be relevant. Of course, when a company or salesperson is seen to be a source, this will not generally pose a problem. When a presenter intervenes, as in much television advertising, there is a strong chance that it will." He added, "In class analysis of recent press and television advertising, our students perceived Stirling Moss (Audi) as fully expert, did not accept at all that David Niven (Maxwell House) was the expert he explicitly claimed to be, and perceived Andre Previn (Ferguson) to be expert in music but not in electronic systems for producing it ... Thus, this credibility dimension is by no means as straightforward in practice as it appears in social communication theory."

In addition, the perceived source expertise was found to be influenced by the source's level of experience and his status. Swenson and his associates [45] conducted a study to identify the major determinants of the perceived expertise of the source. In a completely randomised, between-subjects factorial design in a simulated child custody hearing, subjects (who were undergraduate students) were exposed to a simulated testimony in a child custody case and subsequently completed a semantic differential questionnaire designed to measure the perceived expertise of a source.

The results of the study revealed that "experience level and witness status significantly influenced the subjects' evaluations of witness expertise. Moreover, female subjects rated all witnesses higher in expertise, and there was a trend that suggested female witnesses may be judged as more expert."

One important conclusion which emerged from the study is that the perceived source expertise is not only a function of the source's experience. The source's status is also crucial in determining the perceived source expertise. On the other hand, expert power and referent power were thought to be related with the source's trustworthiness as perceived by the receiver.

A study conducted by Busch and Wilson [46] to assess the impact of a salesman's expert and referent social power on the customer's trust in the salesman and on his attitude and behavioural intentions, revealed that expertise is generally more effective than referent power in producing the desired customer changes. The study's purpose was to analyse the effects of differential levels of a salesperson's expert and referent social power bases on the customer's perception of the salesperson's trustworthiness. Therefore, referent power was based on the receiver's (or the customer's) perceived attraction to the salesman, and the differential levels of it (ie. the referent power) involved manipulation of the perceived attitudinal similarity between the salesman and the customer. Expert power, on the other hand, involved two differential levels of salesman (who was identified in the study as 'about average' in terms of his knowledge of the area, ie. life assurance). The high expert salesman was presented as being clearly 'above average' or excellent on the various dimensions of expertise which were: "(1) years of experience in selling life insurance, (2) years of formal education, (3) amount of specialised and advanced training in the life insurance field, (4) success measured by number of times sales quotas were met or exceeded,

(5) ability to communicate verbally, and (6) ratings of knowledgeable made by peers, superiors, and customers."

The major dependent variable measured was the customer's trust in the salesman. Trust was measured as "the sum of four Likert type scales," where the subjects were asked to respond to the following statement: "I feel that the life insurance salesman being studied here is: dependable, reliable, trustworthy, reputable."

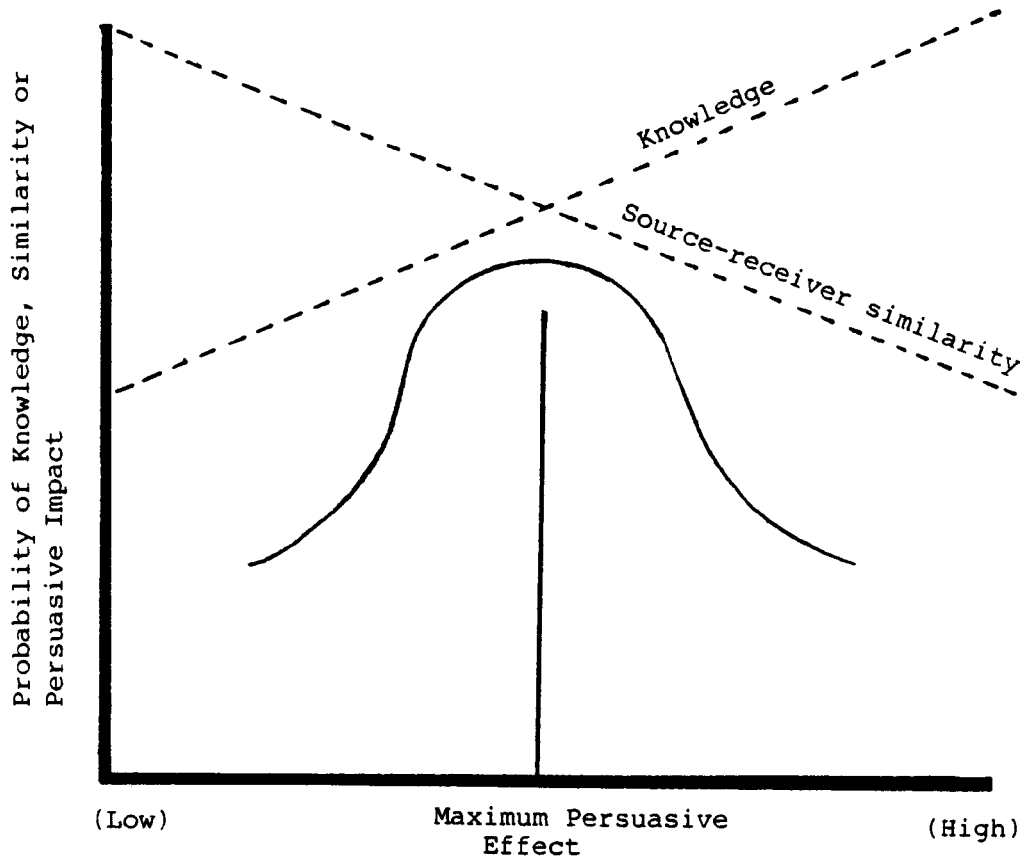
The findings of the study revealed that "the stronger the expert and referent power bases the more trustworthy the salesman was perceived to be by the customer. Expert power was more important than referent power as a factor affecting trust."

These findings are consistent with the conclusions previously obtained from McGuire [47] which however drew attention to a qualification of the positive relationship between expertise and persuasion. There was the expectation that there might be such a relationship as too much perceived expertise.

However, Percy and Rossiter [48] suggested that "a source perceived to be slightly superior to the receiver would be more credible than a source who was not superior at all or who was a great deal more superior to the receiver. The more expert source benefits from being perceived as more knowledgeable than the receiver, but suffers from being perceived as much different from the receiver."

This nonmonotonic relationship between the source expertise and the persuasive impact is illustrated in Figure (5-1).

Figure (5-1): Nonmonotonic relationship between source's expertise and persuasive impact



Source: Percy, L. and Rossiter, J.R., Advertising Strategy: A Communication Theory Approach, Praeger Publishers, New York, 1980, p77.

As the figure above shows, the source's expertise and the persuasive effect are related to each other through the mediation of underlying factors such as knowledge of the source and the source-receiver similarity. In this situation, "maximum persuasive impact occurs at some intermediate level of source expertise."

Despite the considerable empirical evidence provided by the literature on the persuasive effect of expertise as a dimension of source credibility, one might suspect that this is usually the case when an expert communicates information of an instrumental nature but not when he makes assertions about values [49]. But even when experts stay clearly within the boundaries of their competence, they may not be the most effective sources, as research on diffusion of innovation in developing countries has shown. In this regard, Rogers and Shoemaker [50] suggested that "to the extent that the adoption of new ideas and practices is influenced by other persons, the attitude of a local opinion leader may be much more important than the activities of a foreign expert." Clearly other dimensions apart from expertness may contribute to the credibility of the source.

In fact, two interesting secondary findings related to the source's expertise should perhaps be mentioned here. First, the effects of the source's expertise on attitude change appears to suggest that the receiver pays a lot of attention to the arguments brought forward by the source in support of his assertions and that these arguments are instrumental in changing the attitude of the receiver. This is, however, not necessarily the case. It was found by Hovland and his associates [51] that a credible source had an effect on attitudes but not on the learning of arguments. Bauer [52] has argued that this can be explained by assuming that the receiver does not pay too much attention to the arguments once he is convinced that the source is credible. However, when the credibility of the source has not been ascertained, arguments play an important role.

The second side effect concerns the objectivity of the source. Intuitively one would expect that if the receiver perceives the source as disinterested, unbiased and as clearly stating his intentions, he will be influenced to a greater extent by the source. Research evidence does not provide strong support for

this assumption and even appears to suggest that, if anything, the opposite is true [53].

In conclusion, the literature generally indicates that expertise is often a basic dimension of source credibility. To the extent that the source of communication is perceived as an expert in a particular area, he is perceived as highly credible by his intended audience.

(3) SINCERITY

Although there is very little detailed experimental evidence about the persuasive effect of sincerity of the source, there is "suggestive evidence on the importance of the communicator's being considered sincere rather than 'just another salesman'" [54] in inducing persuasion.

Herz [55] suggested that sincerity is an essential ingredient for the successful salesperson. According to his view, "sincerity evokes confidence, credibility, acceptance, conscientiousness, dependability, and naturalness. It is a character trait developed over the years, but it may also be consciously and practically implemented by certain positive actions taken in connection with the normal selling process."

Hovland and his associates [56] mentioned that sincerity, like knowledge and intelligence, is related to trust and confidence, and these dimensions are related to perceptions of the communicator's credibility.

Sincerity of the communicator was also considered by Merton [57]. His analysis of Kate Smith's war bond selling campaign during which she broadcast continuously for eighteen hours, provided considerable evidence that one of the major reasons for her

phenomenal success was the high degree of sincerity attributed to her by the audience. In this sense, the intensified effort devoted by Kate Smith was perceived as an indication of her credibility.

It could be concluded, therefore, that the sincerity of the source is a major dimension of his credibility as perceived by his audience.

(4) STATUS/PRESTIGE

The socio-economic status of the communicator might influence receiver perceptions concerning the credibility of the communicator. That is, the receiver attributes a certain level of prestige or status to the communicator according to the known characteristics of the communicator such as the occupation. Often, the differences in the prestige or status attached to an occupation are used in defining the social status of the occupation [58].

Reiss [59] noted that, "when subjects are asked to evaluate or judge the rank, position, or standing of occupations, most investigators refer to the 'prestige-status' of the occupation ... so that the occupations may be rank-ordered by differences in their prestige-status." In this context, status refers to "the relative prestige accorded to an individual or the position he occupies within a specified group or social system." [60]

Status is frequently measured in terms of the degree of influence the individual exerts on the attitudes and behaviour of others [61]. It follows that a high-status person is one who has a great deal of influence on the attitude and behaviours of others.

Conversely, a low-status person is one who has little or no influence on attitudes.

The position in society according to status, therefore, is related to the role(s) played by the person. In an early study conducted by Haiman [62], the findings indicated that the difference between a college sophomore and the Surgeon-General of the United States was a function of the difference in the status between the two persons.

Additional sociological research seems to support the view that occupational status is closely related to socio-economic status. Hodge [63] examined status consistency and the functional relationship between education, occupation, and income. He found that an individual's occupation is the single most consistent aspect of a person's life.

Bettinghaus [64] emphasised the importance of the differential status attached to the source of communication by demonstrating that the higher a receiver perceives the source's prestige, the more likely he is to be influenced in a persuasive communication situation. In other words, the occupation of an individual places the person in a specific role position. People naturally ascribe a set of behaviours to various role positions and this influences their perception of individuals. Receivers accord a high or low status to various occupations and therefore to individuals occupying that role position. However, according to Bettinghaus, "What is important is not the actual role that any communicator or receiver is occupying, but the relationship between the roles of the source and the receiver." He emphasised the persuasive effect of the status component of source credibility by suggesting that the status or the prestige associated with a source of persuasive communication triggers a set of perceptions by a receiver which can be attributed to the status of the source. These perceptions are used to judge the

credibility of the source. In this regard, Bettinghaus stated, "we do pay attention to the messages we receive from sources who possess higher status than ourselves."

Support for Bettinghaus's notion that differential status can be attached to role positions comes from DeLozier [65] who pointed out that "each role carries with it a status, or level of prestige. When two or more roles are compared, people can ascribe a higher status to one relative to the other." Moreover, DeLozier discussed the status or prestige factor in relation to persuasion. He stated that "a source who is perceived high in prestige is more persuasive than one perceived low in prestige."

However, a study conducted by Anders [66] presents conflicting results regarding the influence of status or prestige on credibility ratings. Anders investigated the relationship among and between the occupational status of the author, the gender of the author, the gender of the receiver or reader, and the sex-role-identity of the reader. The researcher had readers evaluate male authors associated with high, average, and low status occupations and female authors associated with the same high, average, and low status occupations. In addition, the researcher examined the evaluations for author gender, unknown article versions and the influence of the subject's sex-role-identity. All article versions were informational and were written in a letter-to-the-editor format. The results of the study failed to support the hypothesis that the occupational status of the author affects the reader's evaluation of the author's credibility. Of particular importance is the fact that Anders used an informational as opposed to a persuasive message, therefore her failure to obtain supportive evidence for the relationship between occupational status and credibility can be attributed to that (ie. the use of an informational message). Thus, it could be suggested that the results of the study might have been different if persuasive material had been used.

The results obtained by Anders led Lawrence [67] to examine more carefully the effects of status and gender of the author and sex of the reader on the evaluation of author credibility. Four persuasive articles - with corresponding response scales - written by the researcher in a letter-to-the-editor format - the same technique used by Anders - were given to the subjects (who were freshman and sophomore sociology students at the University of Arizona). Each article was attributed to either a male or a female author. Each one was associated with a high and low status occupation. Subjects were asked to rate their feelings regarding the credibility of each author.

The findings of the study indicated that "there were significant differences regarding author occupational status. For two of the persuasive articles, the high occupational status author was rated as more credible than the low status occupation author regardless of author or reader gender. Significant differences were also found for reader gender. Female readers overall rated authors as more credible than did male readers for two of the persuasive articles."

In fact, the importance of Lawrence's study stems from two specific aspects. First, it provides additional support for the effect of occupational status on the receiver's perception of source credibility. This supportive evidence replicates the findings obtained by other researchers investigating the relationship between status or prestige of the source and his credibility as perceived by the receiver. Second, the findings of the study conflict with those obtained by Anders. By using the same manipulation procedure used by Anders, and a persuasive message as an experimental stimulus, Lawrence's findings emphasised that Anders' failure to demonstrate the effect of the occupational status of the source on his perceived credibility was due to the informational nature of her communication material.

Additional support for the persuasive impact of status as a major component of source credibility was provided by the so-called "Pratfall" experiments [68], which suggested that "a highly prestigious person actually becomes more attractive if there is evidence of some human failing which would be a reason for rejecting a less prestigious individual. Thus, it would seem that a source perceived to be slightly superior to the receiver would be more credible than a source who was not superior to the receiver."

An experimental study was conducted by Koslin, Haarlow, Karlins and Pargament [69] to investigate the relationship between group status and the evaluation of the performances of group members. Subjects (who were adolescent boys camping in Southern Canada) were billeted in four different cabins. In the first part of the experiment, the group status of each camper was determined. This was done by observing each cabin group extensively to find out which individuals were leaders and which were followers. In the second part of the experiment, each camper was asked to judge the performance of his cabinmates on several tasks of central concern to the group, including two related to athletics - rifle shooting and canoeing. The basic assumption was that regardless of how the campers actually performed on the task, individuals with low status would be judged as inferior shooters and canoers, while individuals with higher status would be judged as superior in these skills.

As was predicted, the findings of the study revealed that "there was a definite relationship between a camper's status position in the group and other members' perception of his performance on tasks of central concern to the group."

Thus, it could be concluded that the general consensus among researchers investigating status or prestige is that ranked occupations reflect or are a good indicator of perceived status.

Therefore, it can safely be assumed that occupational status and social status are directly related. Of particular importance to the present study is the idea that the communicator's status may affect the receiver's evaluation of that communicator as credible or not. This may be especially true for persuasive communication situations where the source is communicating on a topic related to his role position. However, "when a source occupying a status position in one role addresses an audience in another role position, he becomes less persuasive." [70]

CLASSIFICATION OF THE DIMENSIONS OF SOURCE CREDIBILITY

Although the above dimensions of source credibility are the most important dimensions frequently employed by researchers, other schemes have been suggested for classifying the several components of source credibility. In this section, some of these schemes are presented.

Thonssen and Baird [71] put the classical case very well as regards the basic dimensions of the communicator's (or the speaker's) credibility. They stated:-

"In general, a speaker focuses attention upon the probity (honesty) of his character if he (1) associates either himself or his message with what is virtuous and elevated; (2) presents his arguments with propriety, tempered praise upon himself, and his cause; (3) links the opponent or the opponent's cause with what is not virtuous; (4) removes or minimises unfavourable impressions of himself or his cause previously established by his opponent; (5) relies upon authority derived from his personal experience; and (6) creates the impression of being completely sincere in his understanding. ... A speaker's goodwill generally is

revealed through his ability (1) to capture the proper balance between too much and too little praise of his audience; (2) to identify himself properly with the hearers and their problems; (3) to proceed with candor and straightforwardness; (4) to offer necessary rebukes with tact and consideration; (5) to offset any personal reasons he may have for giving the speech; and (6) to reveal, without guile or exhibitionism, his personable qualities as a messenger of truth."

In the context of the above description, credibility can be established through "ethical attributions during the message sending. A speaker may give credibility to himself in many subtle ways. It is probably also true that he can lose credibility if his demeanor is not consistent with positive audience expectations." [72]

Burgoon [73] developed his view, describing a highly credible source as; "... a composite picture, ... someone who is moderately competent, highly sociable, of good character, moderately composed and near neutral on extroversion." This description supports the notion that credibility of the source is a reflection of his character.

A scheme for classifying the basic dimensions of source credibility was proposed by Rarick [74]. The researcher suggested that the concept of source credibility consists of two major components: (1) a cognitive component which is represented by "power, prestige, and competence;" and (2) an affective component which comprises "trustworthiness and likeability." He found that a source's influence on a receiver's attitude was highly related to both the cognitive and the affective components of source credibility. Although this scheme deals with source credibility in more general terms, it conflicts with a conclusion made by Hovland and his associates [75] in which they

distinguished between the credibility of the communicator and other factors such as, affection, admiration, fear, power, etc.

Perhaps the most comprehensive and careful examination of the underlying dimensions of source credibility has been conducted by Berlo and his associates [76]. In their study, they suggested that "Typically, "credibility" is implicitly assumed to be unidimensional, dichotomous (either high or low), and specifiable in terms of objective characteristics of the source, such as social status. Such a stipulation implies that the variable is a more or less static attribute of a source, rather than a perception which is subject to change."

In their attempt to identify the major dimensions of source credibility, the researchers followed procedures developed by Osgood and his associates in constructing the semantic differential [77]. Essentially, the procedure consisted of generating a set of polar adjectives judged to be antonyms. Each pair was placed at either end of a seven-point rating scale, and groups of subjects rated a number of sources on each scale.

In their preliminary study, the researchers investigated four types of sources: "(1) public sources without a context being provided; (2) public sources in a relevant context; (3) public sources in an irrelevant context; and (4) interpersonal sources - individuals known personally by each respondent."

In this preliminary study, 91 Michigan state students and student wives were asked to evaluate 18 sources belonging to the four major types on each of 83 different scales. The findings were described in terms of a four-factor solution which accounted for 62 percent of the total variance.

The four factors (or dimensions) were: safety, qualification, dynamism, and sociability. The first two factors, safety and

qualification, accounted for 52 percent of the variance (27.8% and 24% respectively). The third factor, dynamism was "a meaningful and distinctive dimension of source evaluation," and it accounted for almost 8 percent of the variance. However, the fourth factor, sociability seemed "dubious" and contributed only 2 percent to the explained variance (ie. 62%).

On the basis of the results of their preliminary study, Berlo and his associates conducted a second study. A total of 35 scales were used to rate 12 different sources. Each respondent was asked to rate all 12 sources on each of the 35 scales. The results of the second study indicated that there were three dimensions which people used in evaluating the credibility of various sources. These dimensions were: safety, qualification, and dynamism. The researchers concluded that these are the "only three, stable and meaningful dimensions of source evaluations."

It is worth mentioning that the first two dimensions, safety and qualification, seem to be analogous to the truthfulness and expertness respectively, which were hypothesised by Hovland and his associates [78]. However, Berlo and his associates [79] cited some differences between their findings and those of Hovland and his associates. These differences are:-

- (1) While the receiver's perceptions of the source's intent was regarded by Hovland and his associates as the essential determinant of trustworthiness, the safety dimension was more general than the concept of trustworthiness. "The safety factor does include this aspect (ie. intent) of the receiver's perceptions; however, it includes other aspects as well. It seems reasonable to categorise terms such as "unselfish," "fair," and "just" as intent-oriented."

- (2) Though the data were not conclusive, they suggested that "qualification ratings primarily follow Hovland's "expertise" dimension when the source's topic is provided, but are based more on general intelligence or ability in a topic-free situation."
- (3) "Dynamism, of course, was not included among Hovland's credibility components." The dynamism component "appears to tap an evaluative dimension that could be referred to as "disposable energy;" ie. the energy available to the source which can be used to emphasise, augment, and implement his suggestions."

McCroskey and his associates [80] mentioned three dimensions of source credibility. These are: composure, sociability and extroversion. Their description of these components does suggest their similarity to the dynamism dimension identified by Berlo and his associates.

Baird [81] confirmed the notion that source credibility is inherent in the receiver's perception. He pointed out that "it is a misconception that a manager has or lacks credibility; it is the employee who determines whether or not to believe in his manager." However, the researcher suggested six characteristics or criteria upon which individuals make their judgment on the communicator's credibility. These characteristics were: (1) intent, (2) competency, (3) character, (4) dynamism, (5) personality, and (6) admirability. Finally, the researcher claimed that "Isolating the behaviour characteristics in each of the dimensions listed can be used to improve credibility."

In an article titled "Buying is believing," Herz [82] argued that while product knowledge, sensible approach, neat appearance, and good listening form the superstructure of persuasive communicator (eg. by a salesman), the salesperson's credibility can be

inspired by:

- (1) Answering all questions, even those that are embarrassing. By so doing, the salesperson establishes confidence and trust in the consumer's mind.
- (2) Bringing up weak points before the consumer does.
- (3) Not misrepresenting the product in any way.
- (4) Immediate advice concerning any promises that cannot be kept.
- (5) Not talking fast.
- (6) Following up after the sale has been made.
- (7) Expressing self-confidence in relation to all the arguments presented to the receiver (ie. buyer).
- (8) Giving the impression of sincerity.
- (9) Understating rather than overstating.
- (10) Avoiding trite expressions such as, "Well frankly," or "to be truthful."

In conclusion, it can be seen that source credibility is not a unidimensional concept which is easy to isolate. Rather, it is a complex, multidimensional concept which is dependent on the perceptions of the receiver. In this context, a receiver's total perception of source credibility may be a composite of the interaction operating within any combination of these dimensions. Many of the credibility dimensions are compounded and interrelated in many studies. For instance, the majority of the

experimenters do not hold some dimensions constant while measuring the other dimensions. Unless all dimensions (or factors) not being measured are held constant, the results will be open to a variety of interpretations.

Source credibility is thought to be a critical factor in inducing the receiver's response. Because of this, the discussion turns now to deal with its persuasive effects.

SECTION 3: THE PERSUASIVE EFFECT OF SOURCE CREDIBILITY

Unfortunately, the majority of the studies investigating source credibility have focused on identifying the dimensions underlying a communicator's credibility rather than on understanding how source credibility affects persuasion. In fact, there has not been a systematic review of the literature pertaining to the persuasive effect of source credibility, particularly the combined effects of source credibility and other variables that affect the persuasive communication process. Perhaps this explains why there is the widespread belief that a highly credible source is more persuasive than a low credibility source, in spite of considerable evidence indicating that credibility has no persuasive effect in some situations. Moreover, little attention has been devoted to identifying the process underlying the effects of source credibility. Researchers have introduced theoretical conceptualisations to account for the persuasive effect of source credibility observed in their own investigations, but the inadequacy of a particular theory in explaining credibility effects across a variety of contexts has not been examined.

In this section, we shall examine the persuasive effect of source credibility at two levels: first, as a main effect, ie. independent of any interaction with any other factors, and second, interactively with other variables. However, the last two sections (ie. the fourth and fifth sections) will be devoted respectively to discussion of the " sleeper " effect of the persuasiveness of source credibility, and the cognitive response theory approach in explaining the persuasive effect of source credibility.

3.1 SOURCE CREDIBILITY AS MAIN PERSUASIVE EFFECT

Communications sources have numerous characteristics that can conceivably modify their persuasive impact [83]. However, most of the existing research has been concerned with source credibility. In general, there is a shared belief among researchers that the source's credibility has a significant effect on the persuasiveness of his message. Crane [84] has called credibility "the most important source characteristic in marketing communication." Howard and Sheth [85] suggest that "credibility is perhaps the most important attribute of the source." Also, Schiffman and Kanuk [86] have indicated that "if the source is well respected and highly thought of by the intended audience, the message is much more likely to be believed. Conversely, a source who is considered unreliable or untrustworthy will have his messages received with scepticism and ultimately rejected."

In an advertising context, Percy and Rossiter [87] indicated that "a credible source gets a receiver to incorporate or internalise into the belief structure the views expressed in the message." Moldovan [88] also emphasised the role of source credibility as an important factor in determining the effectiveness of advertising. All of the above studies highlight the possible persuasive effects of source credibility.

In many experimental studies of source credibility, high credible sources have been shown to induce greater positive attitude

change than low credibility sources [89].* These effects operate independently of interactions with other variables, ie. they operate as main effects in ANOVA terms. The most significant of these studies are reported here.

In an early study, Sherif and Sherif [90] found that increasing the credibility of the source of the communication enlarged the receiver's range of acceptance versus rejection. This conclusion is consistent with the conclusion of Hovland and his associates [91], but the dimension of status has been added to the definition of overall credibility. In their classic study, Hovland and his associates defined source credibility as the sum of 'trustworthiness' and 'expertise.' They concluded that the more credible the source, the greater the attitude change in the direction of the message advocated and that a less credible source produced less attitude change.

An experimental variation in source credibility through the use of communicators differing in trustworthiness was produced in a study conducted by Hovland and Weiss [92]. The general procedure consisted of presenting two communication messages which were identical in content and conclusions. Each message was attributed half of the time to a high credible source and half to a low credible source.

* One possible exception to this conclusion has been pointed out by cognitive dissonance theorists who claim that sometimes the low-credibility communicator can be more persuasive. This exceptional case is discussed later in this section.

The findings of the study revealed that opinion change in the direction advocated by the source occurred significantly more often when the communication was presented by a high credible source. The subjects' evaluations of the source influenced their degree of opinion change. In general, the subjects considered the sources to be "less fair" and their conclusions to be "less justified" when the source was perceived as low rather than highly credible. Conversely, the subjects perceived the highly credible sources as "more fair" and their conclusions as "more justified."

However, when data were obtained on opinion change exhibited four weeks after having read the communications, the differential effectiveness of high credibility sources versus low credibility sources had disappeared. This result was attributed by the researchers to "forgetting of the content, decreased awareness of the communicator's credibility, or both." In other words, this result was explained in terms of the message and source being spontaneously dissociated from one another with the passage of time.

This explanation is based upon the assumption that "the supporting aspects of the communication can be evaluated on their own merits and without regard to the source. They will not initially evoke evaluative responses involving the source to the degree that the purely "opinion" aspects of the message will. Subsequently they will more frequently occur without accompanying responses which label the source and bring it to mind." [93]

However, under other conditions "one may expect the source and the content to be closely associated in memory. For example, when the communication presents a message that only one or a few persons could have originated, retention of the content will tend to be accompanied by retention of the source." [94]

In fact, two important criticisms can be made regarding the study of Hovland and Weiss. First, the credibility of the source was manipulated only through the dimension of trustworthiness. It is not certain whether a less trusted source is necessarily less credible. Also, the sources of communication differed in more than just trustworthiness; age, status, expertise also varied. Second, the researchers failed to carry out a post-credibility check to see if the message had changed the source's perceived characteristics.

In another study, Kelman and Hovland [95] studied variations in source credibility. They asked their subjects to listen to a recording of an educational radio programme in which the speaker was introduced to give a talk favouring extreme leniency in the treatment of juvenile delinquents. Three different sources who varied in their credibility were used. The highly credible source was identified as a "judge in a juvenile court," and also author of several authoritative books on the subject. He was described as highly trained, well informed, sincere, honest, and "with the public interest at heart." In a neutral credibility condition, the source was identified as a "member of the studio audience" chosen at random. In the low credibility condition, the speaker was introduced as a "member of the studio audience," but as he was introduced, the subjects were informed that he had a criminal record and was a juvenile delinquent in his youth.

The findings obtained in this study were similar to those found in the study by Hovland and Weiss. Specifically, when the communication was attributed to the highly credible source (ie. the court judge), the greatest opinion change occurred. The next greatest opinion change was attributed to the neutral source, and the least opinion change occurred for the low credibility source (ie. the former juvenile delinquent). The researchers concluded that the opinion change was due more to the

subjects' evaluations of the communicator's fairness and trustworthiness than to expertise. This conclusion emphasises two points. First, that source credibility depends considerably upon the audience's perception that the source is credible. In other words, it is not important that the source is credible, but that the audience perceives the source as credible. Second, that the topic which a source communicates has an important role in determining the dimension upon which the audience depends in judging the credibility of the communicator. That is, the topic of the communication must be related to the communicator's role position.

However, after a period of three weeks the opinion questionnaire was again given to the subjects. The details of the source were given to only half of the subjects. The subjects who were not reminded of the communicator's credibility showed an increase in their attitude change toward the topic advocated. This finding was named "the sleeper effect," but this effect did not appear with the subjects who were reminded. The subjects who were not reminded of the source (the communicator) were questioned about the extent to which they remembered the source. The subjects who remembered more of the details did not continue to be influenced by the source as much as the subjects who remembered fewer details. Within the low credibility group the subjects who remembered the source best were most inclined to show the sleeper effect. This effect was attributed to the dissociative effect which refers to "the common process of first associating and then dissociating message acceptance or message-rejection cues from a message." * [96]

* This notion will be discussed in more detail in the context of our discussion of the sleeper effect later in this chapter.

The main criticism of this study is that "fairness of presentation" is not an adequate measure of source credibility, especially with the amount of involvement the communicators had with the topic area. The low credibility source probably had the most to gain by the advocated message. The sources also differed greatly in status, and perhaps in expertise and intelligence as well.

In addition, as in many other studies of source credibility, in Kelman and Hovland's study no post-credibility measurement was taken. This kind of post-credibility check should always be carried out.

Hovland and Mandell [97] conducted a study which was primarily concerned with the variable of trustworthiness. The subjects were given a communication message on the topic "Devaluation of currency." An introduction was used which elicited either: (1) suspicion of the communicator's motives or (2) belief in his impartiality. In the suspicion condition, the communicator was introduced as the head of a large importing firm, whereas in the nonsuspicion condition, the communicator was an economist from a leading American University. All subjects were asked to give their opinions on the issue before and after the presentation of the message. Later, they were also asked to give their reactions to the programme and communicator.

The findings of the study showed that the communication produced no greater net opinion change when delivered by the nonsuspect speaker (ie. the economist) than when delivered by the suspect speaker (ie. the head of the importing firm). However, it is worth mentioning that subsequent measurement provided quite small differences in opinion change between the groups in the two experimental conditions (ie. suspicion versus nonsuspicion). "This finding highlights the necessity of assessing various communicators in terms of their effectiveness in producing

changes in opinion rather than relying merely on audience evaluation of the presentation of the content." The findings also indicated that impartiality in the communicator's presentation made only small differences in the amount of opinion change produced.

On the other hand, the experiment by Hovland and Mandell suffered from a lack of internal validity. While the researchers were concerned with trustworthiness as a major component of source credibility, their operational definition of credibility contained two components, expertise as well as trustworthiness, both of which were represented by the economist of the leading University. As a result, it is possible to attribute the effects to either trustworthiness or expertise or to the interactive operation of both.

In a study conducted by Zagona and Harter [98], source credibility was manipulated in terms of trustworthiness. Subjects were exposed to an identical communication message about the effects of smoking on health. The message was delivered by sources who varied in their credibility. In the high credibility condition, the message was attributed to the Surgeon-General's report on smoking and health. In the moderate credibility condition, the source of the message was Life Magazine. The low credibility source was an American tobacco company. After reading the three versions, the subjects were divided into three groups, each of which was exposed to one of the three sources. They were then asked to answer an 18-item test designed to see how well they remembered the message and their attitudes towards it.

The findings of the study indicated that the message was better remembered when it was attributed to low and high rather than moderate credibility sources. Also, "As credibility of the source increased, the percentage of subjects who agreed with the

information and perceived it as trustworthy also increased." Subsequent research on the persuasive effect of source credibility led to the conclusion that highly trustworthy and/or expert sources induce more positive attitude change toward the position advocated than sources that are less trustworthy and/or expert [99].

In fact, two major criticisms can be levelled against this study. First, the credibility of the source was measured only in terms of trustworthiness which is not sufficient by itself as an adequate measure of credibility. Many factors (or dimensions) can determine the level of the perceived source credibility, such as status or prestige, expertise, intention and sincerity. Unless all factors not being measured are held constant, the results will be open to a variety of interpretations. Therefore, to manipulate the credibility of the source using just one dimension can lead to inconclusive and unreliable results and findings. The second major criticism of the study is that the source's credibility was chosen intuitively - credibility should always be regarded as being "in the eye of the beholder." [100]

In a study conducted by Choo [101], written communication messages were presented by high and low credible sources. In the high credibility condition, the source was the head of the Environmental Cancer Section of the National Cancer Institute, whilst the source in the low credibility condition was the director of the Tobacco Industries Public Relations Committee.

"The results of the study indicated that more change was produced from the high credibility source than the low credibility source. Where the communication was originally considered to be dissimilar to the subject's own views, the subjects were influenced to a greater extent than subjects whose views did not deviate greatly from those presented in the communication."

However, since the credibility of the source was manipulated only through the component of trustworthiness, it is not certain whether a less trusted source is necessarily less credible. Also, there is a possibility that the message topic played a significant role as the tobacco industry could only benefit from such a communication. If the message topic was reversed, then it would have a damaging effect on the tobacco industry and the low credible source (ie. the director of the Tobacco Industries Public Relations Committee) might have produced a greater attitude change. Specifically, by arguing against his own best interest, the low credibility source establishes himself as a credible source. He obviously has no intention of manipulating his audience, nor does he have anything to gain [102].

Rosenbaum and Levin [103] carried out an experiment in which they manipulated source credibility in an impressions formation setting. Information was presented by sources of different occupations to a group of subjects who rated the information in order of value. The findings of the study revealed that highly credible sources produced both the most and the least favourable impressions of the person described in the information.

In another study, Baron and Miller [104] conducted an experiment in which the credibility of the source was measured by three major dimensions - expertise, status, and knowledge. The researchers used a sample of 198 male psychology students as the subjects of their experiment. Half of the subjects were led to believe they would hear a message from a University professor in the department of Industrial Relations (a high credibility source) and the other half of the subjects one from a retired carpenter (a low credibility source).

The results indicated that a low credibility source induced greater counterargument than a high credible source. However, in interpreting these results, one may argue that the persuasiveness

of the professor (a high credible source) may be due to status and group membership rather than other components of credibility such as expertise or knowledge. The professor was a member of the academic world as were the subjects.

In the area of marketing, Levitt [105] found that in general the better the reputation of a company, the more capable it was of commanding attention from industrial buyers and the more likely it was to secure early adoption of its new product. The study showed that in high risk purchasing situations, the greater the personal risk perceived by the consumer, the more persuasion it takes to get the buyer to switch from a product he is currently using. Thus, source credibility may be used to reduce the perceived risk associated with a new purchase. Information from a more trustworthy source would be a way of reducing the risk.

Also, in the area of advertising, Mazis and Adkinson [106] conducted an experiment in which they used 83 students studying Business Studies. Initially the students were exposed to a programme with an experimental advertisement during the commercial break. After the subjects had answered questions on the programme they were asked to go to another part of the building where they were asked questions on brand performance, purchase behaviour, and product qualities, supposedly for a totally independent marketing study. The product concerned was a mouth wash which was in the process of being declared misleading by the FTC (Federal Trade Commission) over a claim that it prevented colds and sore throats. The advertisements used were adapted from real commercials which had not been released. The results of the study indicated that there were differences between the corrective and non-corrective advertisements but there was no significant difference between the two sources (ie. the company and the FTC) in the production of strong negative effects. There was no evaluation of source characteristics, but it is reasonable to assume that the FTC was

a more credible source than the company.

In another study Kibera [107] demonstrated that a high credibility source (agriculture officer) induced a greater change in respondents' attitude than a low credibility source (local Co-operative Union officer). The researcher concluded that "the higher the credibility of the source, the higher the attitude or opinion change."

On the basis of the above findings, there seems to be general agreement among researchers that source credibility is an important variable in persuasion. From the reported findings of the empirical research a useful conclusion seems to be that "a source is more persuasive when the audience perceives him as highly credible than when it perceives him as low in credibility." [108]

However, some empirical studies have reported that low credibility sources are more effective than high credibility sources. "A low credibility source can be persuasive under certain circumstances. Specifically, the persuasion of a low credibility source is increased when the audience has a favourable initial attitude toward the source." [109] However, further discussion on this issue will be conducted later in the context of "the sleeper effect."

In accounting for the different amounts of opinion change produced by communicators of high versus low credibility, one possible explanation would be that "people tend not to expose themselves to communications from sources toward whom they have negative attitudes." [110] However, the literature also

suggests two additional explanations. These are * [111]:-

"(1) Because of their unfavourable attitudes, members of the audience do not pay close attention to the content and/or do not attempt to comprehend the exact meaning of what is said. The former could result from thinking about the communicator, while the latter might result from "reading into" the content various implications that correspond to the assumed intent of the communicator. As a result, they learn the material less well than when it is presented by a favourable source and, failing to learn it, are unable to adhere to the recommended conclusions.

(2) Because of their unfavourable attitudes, members of the audience are not motivated to accept or believe what the communicator says and recommends."

The relevant question here is deciding which explanation seems to be the more valid. In this respect, Hovland and his associates [112] suggested that "a critical aspect of opinion change is the degree to which recipients become motivated to accept the assertions contained in the communication." According to Hovland and his associates, this motivation "will be substantiated by further experiences or will lead to reward, social approval, and avoidance of punishment. These anticipations are increased when a recommendation is presented by a person who is believed to be informed, insightful, and willing to express his true beliefs and knowledge, and are decreased when cues of low credibility are presented." [113]

* The explanation of the persuasive effect of source credibility will be dealt with later in this chapter.

In conclusion, on the basis of the studies reported, the literature suggests that high credibility sources tend to be more persuasive than low credibility sources, although several exceptions have been observed. However, some of the experiments discussed in the literature review highlight certain methodological shortcomings. In particular, several important criticisms can be levelled at those experiments. These are:-

- (1) Most of the studies failed to carry out a post-credibility check to see if the message had manipulated the source's perceived ratings. Furthermore, in certain cases, neither a post nor pre-credibility measurement was taken and the sources' credibility was assessed intuitively. A source's credibility cannot be assessed intuitively and a pre and post-credibility check should always be carried out.
- (2) None of the studies measured source credibility in the same way and researchers did not use the same variables to assess a source's credibility. Certain researchers used Hovland's measurements for source credibility; expertise and trustworthiness, while others used totally different measuring scales (ie. prestige, fairness, etc).
- (3) The studies reported in the literature review suggest that high credibility sources tend to be more persuasive than low credibility sources, although several exceptions have been observed. However, most of the evidence supporting this view came from the initial studies on the subject. More recent studies have considerably expanded this finding, and have identified the importance of variables that interact with or mediate between source credibility and attitude change. In particular, the research literature provides

considerable evidence that source credibility does not operate independently. Its effects can be influenced by many contextual and situational factors.

These factors are discussed in the next section.

3.2 THE PERSUASIVE EFFECT OF THE INTERACTION BETWEEN SOURCE CREDIBILITY AND OTHER VARIABLES

Considerable attention has been devoted to identifying the factors which influence the persuasive effects of source credibility. The research literature to be reviewed in this section has investigated the interaction of source credibility with certain other variables. The investigations into the joint effects of message, audience, and situational characteristics with source credibility suggest that low credibility communicators may not constitute the persuasive liability that the majority of the main-effect studies indicate.

For the purpose of the present study, the factors which interact with source credibility will be grouped into five basic categories: (1) those related to the source per se, (2) those related to the message, (3) those related to the receiver, (4) those related to the medium, and finally (5) those related to the communication situation. Each of these categories will be discussed in some depth.

3.2.1 FACTORS RELATED TO THE SOURCE

Within this category, the following factors will be discussed:-

3.2.1.1 AGE

Hovland and his associates [114] pointed out that the communicator's age may evoke attitudes related to his expertness. This was viewed by them as one of two essential components of source credibility, the other being trustworthiness. The authors suggested that "the age of a communicator may sometimes be regarded as an indication of the extent of his experience."

Consistent with this conclusion, DeLozier [115] stated that "age is often a determinant of source credibility. In some situations, older persons tend to be more influential than younger persons, because people tend to seek advice from others older than they are." This tendency may be due largely to the belief that older people have more experience and are therefore seen as more "expert."

3.2.1.2 THE COMMUNICATOR'S BODY POSITION

McGinety and his associates [116] conducted an experimental study using a tape recorded message while simultaneously projecting one of thirty colour slides of the supposed source. The findings of the study indicated that the body position of the communicator influenced his persuasiveness and affected the extent to which his message was perceived as credible. In general, the researchers found that an open body position (arms outstretched) produced greater attitude change than a closed body position (arms close to body: protective position).

3.2.1.3 THE COMMUNICATOR'S FLUENCY

McCroskey and Merhaley [117] found that the post-test measure of credibility was influenced by the fluency of the source's presentation. The results of their study revealed that "the credibility of a low credibility source was raised by a well presented message, while the credibility of a high credible source was lowered by a poorly presented message."

However, source credibility is influenced not only by the fluency of the source during his presentation, but also by the voice and accent of the communicator. These factors "appear as relevant "signs" for a receiver in evaluating how credible a source is." [118]

3.2.1.4 THE SELFISHNESS OF COMMUNICATOR

Empirical research indicates that the persuasive appeal of a low credibility source is increased when he argues against his own self-interest. "By arguing against his own best interests, the communicator establishes himself as a credible source. He obviously has no intent to manipulate his audience." [119]

Walster and his associates [120] tested the hypothesis that "a communicator, regardless of his general prestige, will be more effective and will be seen as more credible when arguing for a position opposed to his own best interest, than when arguing for changes obviously in his own interest." To test this hypothesis, the researchers first gave High School students an attitude questionnaire designed to assess their opinions on the topic "how much power should Portuguese prosecutors and police possess in dealing with criminals?" Then the subjects were exposed to one of four persuasive messages: (1) a low credibility source (who was a convicted criminal) arguing against his own best interest

(ie. increasing the power of prosecutors), (2) a low credibility source arguing in favour of his own best interest (ie. decreasing the power of prosecutors), (3) a high credibility source (prosecutor) arguing against his own best interest (ie. decreasing the power of prosecutors), and (4) a high credibility source (prosecutor) arguing in favour of his best interest (ie. increasing the power of prosecutors).

The findings of the study showed that "when the prosecutor advocated less power for prosecutors, he was much more effective than was a criminal advocating the same position. However, when the criminal insisted that prosecutors should have more power, he was much more effective than a prosecutor advocating the same position." Thus the communicator (whether criminal or prosecutor) was judged more credible when arguing against his own best interests.

Additional empirical evidence on the mediating persuasive effect of the source's selfishness upon his judged credibility was provided by Koeske and Crano [121]. They presented two statements supposedly voiced by General Westmoreland, the American "hawk" on the Vietnam war. The first statement was congruous with his previous attitude on the war, stating that "US bombing of North Vietnam has partially reduced the influx of men and military supplies to the South." The other statement was incongruous with Westmoreland's previous attitude on the conflict. It stated, "Generally speaking, the number of US casualties in the Vietnam conflict has far exceeded that reported in the US press."

Two other statements were attributed to the black activist Stokely Carmichael - once again, the first statement was

congruent, stating "There are many documented reports of extensive police brutality in Negro neighbourhoods." The other statement was incongruent, stating "Often Negroes have not taken the initiative required to benefit from civil rights legislation."

The Westmoreland and Carmichael statements were presented to subjects who were asked to judge which statements were most credible. Half the subjects were told who made the statements, half not.

The findings indicated that "a statement was judged more credible when it was voiced by a communicator arguing against his own best interest. Thus, for example, the statement 'Generally speaking, the number of US casualties in the Vietnamese conflict has far exceeded that reported in the US press' was judged more credible when attributed to General Westmoreland than when presented anonymously."

It is worth noting that the two studies by Walster and his associates, and Koeske and Crano, respectively, are similar because they are concerned with the possible enhancement of communicator persuasiveness through increasing the credibility of the message. Both examined this issue by having a communicator make a statement opposed to his own best interests. The findings of both studies are consistent.

3.2.1.5 THE SOURCE'S PHYSICAL ATTRACTIVENESS

There is considerable empirical evidence supporting the persuasive effect of the source's physical attractiveness.* It was concluded that "one can easily manifest strong evaluative judgments toward a product or brand found attractive because it is identified with an attractive source." [122] However in general, little research assessing the impact of physical attractiveness of the source on his perceived credibility exists in the literature dealing with advertising.

An exception was a study by Baker and Churchill [123] who argued that "if attractive individuals in an advertisement are perceived as being persons who are independent and not easily influenced or coerced into behaviour contrary to their own conviction, their credibility and the credibility of the message itself should be increased."

Despite this attributional argument, the study of Baker and Churchill failed to prove that the physically attractive model increases the cognitive acceptance of the message. Their results revealed that when males rated their intention to purchase a product, the attractiveness of female models interacted with the nature of the product. For the male subjects, endorsement by attractive female models resulted in a greater intention to buy one of the products, namely perfume, than did endorsement by unattractive female models. Conversely, when coffee was the product, endorsement by unattractive female models led to a greater intention to buy. The reversal of the normally positive effect of physical attractiveness on persuasion is accounted for

* The attractiveness of source has been discussed in relation to its persuasive effect in communication. For further details, see Chapter Three.

by noting that in some situations attractiveness is logically related to perceptions of expertise. In the case of perfume an attractive model might be seen as having greater expertise and knowledge than an unattractive model. Conversely, for a product related to competence in the home (such as coffee), a less attractive model might be expected to have greater expertise.

Finally, Baker and Churchill concluded that "if the individual in the advertisement is actually a spokesperson for the product, the individual's credibility may be more important in the acceptance of the message. In the study, the person in the advertisement was in the strict sense a model with no "personal relationship" to the advertisement copy." Therefore, as the researchers suggested "the effect may be amplified if the model is associated personally with the message, as in a testimonial or personal endorsement type of advertisement. In such an instance, the message itself may be evaluated more directly in terms of the model's credibility." [124]

The effect of the communicator's physical attractiveness on his perceived credibility was examined by Patzer [125] within a marketing context. It was hypothesised that communicators of higher levels of physical attractiveness would be perceived as more trustworthy and of higher expertise than communicators of lower levels of physical attractiveness and that the higher the communicator's physical attractiveness, the greater the receiver's liking for the communicator would be. Physical attractiveness was measured as the degree to which a person's face was pleasing to look at.

Source credibility measures involved a total of 582 university students' perceptions of trust, expertise, and liking as a function of experimental treatments that differed in only the physical attractiveness of the communicator. Communicator's physical attractiveness was determined through consensus of

judges. The marketing context involved persuasive communications presented in printed advertisement mockups with photographs of persons of low, moderate, and high physical attractiveness. Subjects were asked to rate those persons in terms of their credibility.

The results indicated that physical attractiveness enhanced the source's credibility through three important attributes: (1) perceived trust, (2) perceived expertise, and (3) a liking for the communicator. Moreover, monotonic relationships were found between communicator's physical attractiveness and each of (a) perceived trust, (b) perceived expertise, and (c) a liking for the communicator.

The results of the study also revealed that "receivers of communication are more influenced by communicators with moderate to high levels of physical attractiveness, regardless of gender. Such communicators apparently have greater social power and are perceived as possessing more favourable characteristics, such as intelligence, engaging personality, and financial success. They also receive more positive responses from others, including requests for help and work."

Thus, while the physical attractiveness of the source can favourably influence a product's image and enhance advertisement recognition, more empirical research is still needed to validate the effect of physical attractiveness on perceived source credibility.

3.2.1.6 THE SOURCE'S SELF-CONFIDENCE

In a more recent study conducted by Whitley [126] the effects of witness confidence and competence on juror perceptions of credibility were tested. The assumption was that jurors'

perceptions of witness confidence and competence are primary determinants of their perceptions of the witness's credibility. For the purpose of his study, the researcher conducted three studies to test the effects of witness confidence and competence on four aspects of credibility: jurors' perceptions of the accuracy of (a) a witness's account of an incident, (b) description, and (c) identification of a suspect, and (d) jurors' subjective impression of a defendant's guilt. In a simulated experimental setting, mock jurors watched videotapes of a simulated witness's testimony and cross-examination concerning an armed robbery, in which her confidence and competence were manipulated.

The results of the first study showed that high confidence led to perceptions of both high credibility and high competence. The second study revealed that confidence and competence had independent positive effects on perceptions of credibility. Confidence was more strongly related to perceptions of the accuracy of the witness's account of the crime, whereas competence was more strongly related to perceptions of the accuracy of the witness's identification of the suspect. Because subjects in the second study were college students, the third study used older subjects in the sample. Confidence and competence were again found to have independent positive effects on perceptions of credibility, but their differential effects on the two aspects of credibility were not replicated. It was concluded that "these results support the assumption that eyewitness's confidence may be an important influence on jurors' decision."

3.2.1.7 THE TIMING OF SOURCE IDENTIFICATION

Of particular interest in this review is the joint effect of source credibility and the timing of the source's identification. The empirical research in this area derives from the assumption that a highly credible source will induce greater persuasion than a low credibility source when the identification of the source precedes the presentation of the message. For instance, Ward and McGinnies [127] attempted to test this hypothesis and concluded that a highly credible source was more persuasive than a low credible one when the source identification preceded the presentation of the message. No source credibility effect was observed when identification was withheld until the message was completed. The researchers also found that deferring identification of the low credibility source significantly increased his persuasiveness. However, the interactive persuasive effect of source credibility and the timing of the source identification was not significant. This result was attributed to the fact that the highly credible source was equally persuasive before and after the message.

However, Sternthal and his associates [128] conducted a study in which they reported that source credibility had a systematic persuasive effect when the source was identified prior to the message, but not when identification was deferred.

Thus, it can be concluded that no systematic high credibility effect has been observed when source identification follows the message. This conclusion is consistent with another finding previously obtained by Greenberg and Tannenbaum [129] who found that "identifying the source at the beginning induced greater support for the communicator's advocacy than if identification was withheld until after the message was presented."

However, source credibility is not only influenced by those factors which are related to the source of communication. It also interacts with message factors, which may have an equivalent if not greater influence on the persuasiveness of source credibility. These factors will be examined in the next section.

3.2.2 MESSAGE FACTORS INFLUENCING THE PERSUASIVENESS OF SOURCE CREDIBILITY

Much of the empirical research on source credibility has focused on the interactive persuasive effect of source credibility and some message factors. Although the findings of this research are inconclusive, it is evident that a post-experimental test of credibility is required to ensure that there are no differences in the persuasive effect between pre and post perceived source credibility. For the purpose of the present study, some of these factors are to be discussed in relation to their mediating effect on the perception of source credibility.

3.2.2.1 THREAT IN THE MESSAGE

The effect of a threat in the message on the persuasiveness of source credibility has been observed in several empirical studies. Hewgill and Miller [130] conducted a study in which one group of subjects was exposed to a mildly threatening message presented by a highly credible source, while the other group was subjected to a strongly threatening message presented by a highly credible source. The researchers found that the strong threat message presented in the high credibility condition changed the subjects' attitude significantly more than did the mild threat message presented. Thus, using a high level of threat in the message increases the persuasiveness of source credibility.

In another study, threat was operationalised by Miller and Baseheart [131] in terms of the social consequences of the failure to conform with the advocated position. Social threat was induced by varying the degree of opinionatedness expressed in the message. A nonopinionated message (ie. low threat) only provided information about the source's position, whereas an opinionated message also indicated the source's perception of those who disagreed with his position. These communications were assigned to either a high or low credibility source. The findings of the study showed that a highly credible source induced greater attitude change when the communication was opinionated (ie. high threat) rather than nonopinionated (ie. low threat). These findings suggest that a strong threatening message may be more persuasive if it is presented by a highly credible source. In this case, the persuasive effect of source credibility was mediated by the effect of the strong threat posed by the opinionated message.

Similar findings have been obtained by Mehrley and McCroskey [132]. They reported that opinionated messages induced greater persuasive effect than nonopinionated ones when the message was presented by a highly credible source. However, when the message was one toward which the subjects had a negative initial opinion, increasing opinionatedness decreased persuasion for both the high and low credibility sources.

Karlins and Abelson [133] pointed out that strong appeals should be superior to mild ones in modifying behaviour when they were presented by a highly credible source. Furthermore, "It appears that a credible source is particularly likely to enhance social influence when physical or social threat is relatively extreme. When low levels of threat are induced, the highly credible source also exhibits greater persuasive power than a low credibility source, though the magnitude of this difference is often less than obtained in highly threatening messages." [134]

3.2.2.2 MESSAGE DISCREPANCY

Message discrepancy, or the magnitude of the difference between the position initially held by the message recipient and that advocated by the communicator, was a focal point in a study conducted by Bochner and Insko [135]. In this study, source credibility was manipulated by attributing the communication message to a Nobel prize winning psychologist (the high credibility condition), or a YMCA director (the moderate credibility condition). The message consisted of a three-page essay advocating a specific number of hours a person should sleep (between zero and eight).

The findings of the study indicated that "message discrepancy was linearly related to attitude change. When the source was highly credible, increasing message discrepancy enhanced persuasion. By contrast, message discrepancy was curvilinearly related to persuasion when the source was less credible. However, a moderate level of discrepancy was most persuasive. Furthermore, the highly credible source induced greater persuasive influence than the moderately credible source only when discrepancy was relatively extreme. At lower levels of discrepancy, source credibility had no systematic effect."

In conclusion, a highly credible source is more influential than a less credible communicator when message discrepancy is relatively high, but not extreme. There is less of a credibility effect or no systematic effect when discrepancy is relatively low.

3.2.2.3 THE EVIDENCE IN THE MESSAGE

The inclusion of evidence in the communication message is often the means by which support for an advocated issue can be gained. In an excellent summary of the early studies on the effects of evidence on the perceived source credibility, McCroskey [136] stated the following generalisations:-

- (1) "Including good evidence may significantly increase immediate audience attitude change and source credibility when the source is initially perceived to be moderate-to-low credible, when the message is well delivered, and when the audience has little or no prior familiarity with the evidence included or similar evidence."
- (2) "Including good evidence may significantly increase sustained audience attitude change regardless of the source's initial credibility, the quality of the delivery of the message, or the medium by which the message is transmitted."
- (3) "The medium of transmission of a message has little, if any, effect on the functioning of evidence in persuasive communication."

McCroskey [137] also examined the effects of evidence as an inhibitor of counterpersuasion. He concluded that "including good evidence has little, if any, impact on immediate audience attitude change or source credibility if: (a) the source of the message is initially perceived to be high-credible; (b) the message (when oral) is delivered poorly; and (c) the audience is familiar with the evidence prior to exposure to the source's message." [138] The researchers found that sources which include evidence, for example, references, could increase the perceived

post-credibility, if the pre-credibility was low. He pointed out that presenting evidence in the message provides supportive factual information that originates from a source other than the speaker. McCroskey observed that the presentation of evidence did not increase the persuasive effect of a high credibility source, but enhanced the persuasive influence of a low credibility source provided the evidence was unfamiliar to the receiver.

Consistent with McCroskey's observations, Burgoon and Burgoon [139] cited three generalisations concerning the effect of including evidence in the message on the persuasiveness of source credibility. These are:-

- (1) "Evidence is effective only if the receivers were not previously aware of it. If the receivers already know about the evidence, they have probably already accepted or rejected the data and a mere restatement of it is likely to enhance the persuasive message."
- (2) "The credibility of the communicator is probably more important than evidence in persuasive communication. If a communicator is perceived as competent and trustworthy, then the presentation of evidence in the persuasive message will not make a difference in the persuasiveness of the message."
- (3) "Evidence must be cited well if it is to be influential; if it is not delivered well, it may not be understood by the receiver. In addition, a poor delivery of the evidence may reduce the credibility of the communicator and thus result in less overall persuasion."

However, the researchers also concluded that "presenting evidence in the message seems to increase the persuasiveness of the message and the high and low credible communicator because it provides the change in attitude with a persistent mechanism and may induce the receiver's resistance to counterpersuasive attempts." [140]

Ray [141] suggested that "two basic assumptions must be considered in constructing a communication message. First, acceptance of the supportive evidence will result in acceptance of the argument. Second, acceptance of the arguments will lead to a change in the conclusion."

Hendrick and Borden [142] conducted an experiment in which unfamiliar evidence was presented. The researchers reported results consistent with those obtained by McCroskey, i.e. the failure to observe a systematic persuasive effect of a highly credible source.

However, of significant importance to advertising strategists is the study carried out by Hunt [143]. In his study, he attempted to examine the persuasive effect of the interaction between evidence and message incongruity. Hunt presented an advertisement that, unknown to subjects, included deception. Subjects then received a counteradvertisement stating that the claims made in the original advertisement were false and deceptive (corrective advertising). The counteradvertisement was either supported or unsupported by evidence and attributed to one of four sources: (1) a consumer organisation, (2) a government regulatory agency, (3) a competitor, and (4) the advertiser sponsoring the deceptive advertisement. The findings of the study indicated that the government agency and the consumer organisation were more credible than the other two sources (i.e. a competitor, or the advertiser). The researcher reported that the competitor was less persuasive than the other three sources when

presenting an unsupported counteradvertisement, whereas all four sources were about equally persuasive when the counteradvertisement included supporting evidence.

In fact, Hunt's findings have significant implications for advertising strategists. They indicate that low credibility sources of advertising messages may increase their persuasiveness by including evidence to support their claims.

Thus, including evidence may significantly increase immediate attitude change and source credibility when the message is delivered well, particularly when the audience has little or no prior familiarity with the evidence.

3.2.2.4 THE INCONSISTENCY OF MESSAGE CLAIM

The effect of the inconsistency of message claim on the credibility of persuasive messages was the focus of a study conducted by Roering and Paul [144]. They found a positive interrelationship between the inconsistency of product claims, the credibility of persuasive messages and the communicator who delivers it. The major conclusion which emerged from their study is that advertisements with low consistency "produce higher expectancy value ratings than advertisements with high consistency." This conclusion has significant implications for both marketing specialists and advertising strategists. In many cases, advertisers increase the credibility of their product claim by admitting inferiority in a product attribute that is of little importance to the consumer.*

* This point will be discussed in more detail in the next chapter.

3.2.2.5 MESSAGE TOPIC

It is generally true that a communicator presenting a topic related to his role position is perceived to be more credible than the communicator who does not. In this context, source credibility may be thought of as a function of the message topic [145].

DeLozier [146] emphasised this point when he suggested that a source who is perceived as highly credible is more persuasive when he communicates a topic related to his role position. However, when a source occupying a position in one role addresses an audience on a topic which is not related to his role, he becomes less credible.

Along this line of thinking, Sigall and Helmreich [147] argued that it is unlikely that a person such as a Professor of Astronomy would be perceived as highly credible, when presenting a message about the effects of legalising non-habit forming drugs (such as Marijuana). A professor who is communicating on a topic which is not related to his role position would normally be considered of low credibility. By contrast, the professor may be very persuasive in addressing his audience on a topic related to his role position. However, in such a case, one could argue that the credibility of the professor may be attributed to his status, but not to the message topic itself. Moreover, the persuasiveness of source credibility may be attributed to the interaction of the status of the professor and the relevance of the message topic to his role position.

3.2.2.6 MESSAGE STYLE

The mediating effect of the style of message on the communicator's credibility has been experimentally investigated by a number of researchers. Bradoc and his associates [148] conducted an experiment on the persuasive effect of the interaction of the style of English used and the credibility of the communicator. The results of the experiment revealed that a highly credible communicator presenting a message with a high standard of English was more persuasive than a low credibility source presenting the same message. However, when the message was presented with a low standard of English, the low credible source was rated more highly than a high credible source. This result provides supportive evidence that the persuasive effect of source credibility was due to the interaction between source credibility and the style of message.

In another study, McKillip and Edwards [149] examined the persuasive effect of the interaction between the message content and source credibility. Four levels of message content ranging from excellent to poor were presented by communicators varied in their credibility (low, medium, and high). The findings of the study showed that "with an excellent message content, a high credible source produced the greatest persuasive effect, but with the medium and low credible sources there were no significant differences in persuasive effect (or attitude change). At the moderate level of evaluative message content, there was a difference in all three sources in the anticipated direction, but at the poor content level, there was slightly less persuasive effect with the high credible source than with the medium credible source." In the end, the researchers concluded that "source credibility is related to message content and that if an expert and inexperienced source held similar views, this may reduce the perceived expertise of the expert."

3.2.2.7 MESSAGE SIDEDNESS (OR VARIATION)

A considerable amount of research has been conducted on the effectiveness of the one versus the two-sided message. However, little research has been carried out on the effect of message sidedness on the persuasiveness of source credibility.* Within the context of the available research, it was concluded that a two-sided message increased the perceived source's fairness and that a source was thought to be more sincere, intelligent and favourable if he presented a two-sided message [150].

Up to this point, an attempt has been made to examine those factors which are related to the persuasive message and mediate the persuasive effect of source credibility. The findings of the empirical research conducted in this area indicate that message factors can influence the persuasiveness of source credibility. Yet message factors are not the only factors mediating between source credibility and persuasion. The next part explores a further set of factors, those related to the receiver of the message.

3.3 RECEIVER FACTORS INFLUENCING SOURCE CREDIBILITY

Receiver characteristics can also have a substantial impact on the relationship between source credibility and persuasion. Existing research provides qualified support for the conclusion that highly credible sources enhance persuasion when interacting with certain receiver characteristics. These factors are examined below.

* Message sidedness and its interactive persuasive effect with source credibility will be discussed later in Chapter Seven.

3.3.1 THE RECEIVER'S INITIAL OPINION

This part of the discussion deals with the persuasive effect which can be induced through the interaction between the receiver's initial opinion and source credibility. The evidence indicates that the persuasive effect of a communicator can be influenced by the extent to which the receiver initially agrees with or is opposed to the position being advocated by the communicator. For example, a study by McGinnies [151] found that "a highly credible source was more persuasive than a low credible source when individuals had an extremely negative initial disposition toward the advocacy. By contrast, when initial attitude was only moderately negative, no systematic effect of source credibility was observed."

This conclusion was supported in subsequent research conducted by Bock and Saine [152] who confirmed that a low credibility source induces greater persuasion than a high credible one when the advocated position is one toward which subjects have a positive initial attitude. This conclusion was also made in studies reported earlier in this chapter. For example, Bochner and Insko [153] observed that a highly credible source was more persuasive than a moderately credible one when the position advocated was highly discrepant, but that the moderately credible source induced somewhat greater persuasion when the position advocated was relatively close to the receivers' initial opinion.

In a study conducted by Dholakia and Sternthal [154], subjects were presented with a communication message supporting the passage of the Consumer Protection Agency Bill. The message outlined reasons for supporting the Bill and requested subjects to sign a petition indicating their support for the Bill. The message was also attributed to either a high or low credibility source. After subjects had responded to the request of signing the petition, they were asked to complete a questionnaire

pertaining to their attitudes toward the Bill. The findings of the study indicated that a low credibility source induced a more positive attitude toward the advocated position (supporting the Bill) than did a highly credible source when the message receivers' own behaviour served as a cue for determining their attitudes. By contrast, when the behaviour cue was absent, a highly credible source did not have an adverse effect on individuals' attitudes or behaviour, though the effect reached conventional levels of statistical significance only for those who complied.

The researchers interpreted their findings in terms of self-perception theory and cognitive response analysis. Although the findings provided support for the self-perception theory, they provided little support for cognitive response analysis. Moreover, the researchers failed to obtain a main persuasive effect of source credibility. This failure was attributed to "the aggregation of responses from individuals varying in initial opinion within a credibility treatment," namely, the message recipients were unfavourably predisposed to the message issue.

In subsequent research, Sternthal and his associates [155] conducted a careful investigation to test the cognitive response explanation of credibility-persuasion relationship. They suggested that such a test requires: "(1) the systematic manipulation of source credibility; (2) a knowledge of the individual's initial opinion toward the communication issue; and (3) the measurement of thoughts as well as attitudes in response to an appeal." To achieve the purpose of their investigation, the researchers examined the effect of source credibility upon favourably and negatively predisposed individuals. It was hypothesised that subjects with a positive disposition toward the communication issue would be more persuaded by the moderately credible source than by the high credible source. The findings of the experiment indicated that the moderately credible source

induced a more positive attitude toward the issue than the highly credible communicator, when the subjects had a relatively positive initial opinion toward the communication issue. By contrast, the highly credible communicator was found to be more persuasive than the moderately credible source among subjects opposed to the communication. This suggests that for a high credibility communicator to be persuasive, the recipient must have a very negative opinion. The less negative the opinion, the less the effect that is exerted by the source.

According to Sternthal and his associates, these results generally support the cognitive response predictions. According to the cognitive response formulations, "it is assumed that message recipients had a negative predisposition toward the advocacy. In this situation, a credible source is more likely to inhibit counterargumentation than a source whose credibility is moderate or low. In turn, the reduction of counterargumentation stimulates persuasion." [156]

3.3.2 THE RECEIVER'S INVOLVEMENT

Several studies have explored the role of the receiver's involvement with the advocated issue in the source credibility/change relationship. Two of the more important ones were conducted by Johnson and Scileppi [157] and Rhine and Severance [158].

In the Johnson and Scileppi study, the assumption was that "most attitude research is run under somewhat low-ego-involvement conditions, and for these conditions it is hypothesized that source credibility does not effect attention to, or comprehension of, the communication but rather operates as an evaluative "set" influencing the subjects' acceptance or rejection of the content of the communication." Based on this assumption the researchers

argued that "if source credibility is operating as a set as described above under low-ego-involving conditions, then by creating conditions in which all subjects are evaluating the communication in a critical manner (ie. a high-ego-involvement treatment), we should find no difference in attitude change to high and low credibility sources."

The researchers also raised the possible effect of the communication plausibility on attitude change, a problem which they claimed had not been explored before in attitude change research. In this respect, they cited a suggestion made by Hovland and his associates [159] that "source credibility has its maximum effects on acceptance when the source and the content are such that there would be considerable discrepancy between attitudinal responses to each of them alone." In their comment on this suggestion, Johnson and Scileppi believed that "the difference between a high and low source credibility on a plausible communication would be the same as a high and low source on an implausible communication since both cases contain a source-communication discrepancy." However, the researchers acknowledged that Hovland and his associates considered that there was a limitation to their generalisation; ie. with a high credibility source implausible communication, the subject may dissociate the source from the content by disbelieving that the source actually gave the communication.

To test their assumptions, Johnson and Scileppi gave subjects a communication arguing against the use of chest X-rays for the detection of tuberculosis. The communication was attributed to either a high or a low credibility source. Also, the communication content was formulated to represent high or low plausibility conditions, and was given under high or low-ego-involvement conditions.

Source credibility was manipulated through a 120-word biographical statement about the source in two conditions. In the high credibility condition, the source was described as a medical authority who was recognised as an expert on the issue of chest X-rays and tuberculosis. In the low credibility condition, the source was identified as a medical quack who had served a prison term for medical fraud and who knew nothing substantial about the issue, but had written the communication for a magazine catering to sensationalism. After receiving the communication, subjects read the biographical statements concerning the source. They then were asked to state their impressions of the source's credibility on the issue.

The analysis of the data obtained from the study provided strong support for the conclusion that source credibility operates as an evaluative "set" operating primarily under low-ego-involvement conditions. The researchers reported that "when all subjects are led to evaluate the communication critically (high-ego-involvement conditions), the sources differences in attitude change tend to disappear." Also, the results of the study revealed that there was "no significant difference in attitude change between the high and low source credibility for the plausible condition versus the same two sources in the implausible condition."

Similar findings concerning the mediating persuasive effect of the receiver's involvement in the issue advocated by the communication were obtained by Rhine and Severance [160]. In a subsequent study, they found that "a highly credible source was more persuasive than a low credible source when the receiver's involvement in the subject matter was low, and there was no systematic credibility effect when involvement was high. The reduction in the influence of a highly credible source was attributed to the increase of involvement. However, this was not

observed in the case of the low credibility source."

Additional support for the persuasive effect of the interaction between source credibility and receiver involvement comes from a study conducted by Dean and his associates [161]. They observed that "a low credibility source induced a more positive attitude than a more credible source when message recipients had low involvement in the advocacy. Further, increasing involvement had a more adverse effect on the less credible source such that under high involvement the highly credible source was more persuasive."

In another study, Gorn [162] examined the joint persuasive effect of personal involvement, communication discrepancy and source credibility. Source credibility was defined in terms of the prestige of the communicator, and the message was concerned with the separation of Quebec from Canada. The high prestige source used was a University professor of the Political Sciences Faculty and he was distinguished in his field. The low prestige source was a student engineer from a university with a poor reputation. The findings of the study revealed that for the moderately involved group, attitude change was induced with a moderately discrepant message from a high prestige source. These results suggest that influence attempts on a meaningful social issue can be effective even under moderately high involvement conditions. However, for the highly involved group, although the level of message discrepancy and the prestige of the source (credibility) affected the message and source evaluation, no attitude change was observed.

Like many other experimental studies, it should be pointed out that Gorn's study suffers from a lack of internal validity. Source credibility was chosen intuitively without any systematic manipulation or measurement, with prestige as the only dimension of source credibility. This is a somewhat dubious assumption, as it implies that other dimensions (variables) determining a

source's credibility were held constant.

An experiment by Petty and Cacioppo [163] attempted to explain through cognitive response theory some of the reasons underlying the observed interaction between source credibility and the receiver's involvement. They proposed that "when an issue is personally involving or relevant, people will be more motivated to think about the information provided by a high than by a low credibility source. As an issue increases in importance, people have a greater desire to hold a correct opinion, and evaluating information from an expert is more likely to yield a correct opinion than is evaluating information from a nonexpert."

The researchers attributed this to the belief that "under high-relevance conditions, subjects exerted the cognitive effort required to evaluate the issue-relevant arguments presented, and their attitudes were a function of this information-processing. Under low-relevance conditions, attitudes were determined by the salient source-expertise cue but were unaffected by argument quality."

3.3.3 THE RECEIVER'S COMMITMENT

Bennet [164] has hypothesised that the extent to which an individual tries to keep his internal beliefs, his verbal expression and his overt behaviour consistent with one another, will influence whether he will strongly resist any future persuasive communication. He found that "even an internal review of the receiver's belief in the receiver's own mind can function as an effective means of inducing resistance to subsequent persuasive communication."

Research of this kind essentially explores the concept of the receiver's commitment. Hass and Linder [165] examined this in

relation to source credibility. Subjects were asked to make a tape recording of their feelings about the time professors should spend on teaching and research. A third of the subjects recorded the tape with their names on it and were told beforehand that it could be released (the high commitment condition). Another third recorded anonymously (the low commitment condition), and the final third made a recording on an irrelevant topic (the irrelevant commitment condition). The subjects then were told they would hear a message opposite in view to their own. This message was presented by either a high or low credibility source.

The results of the study showed that when the subjects were uncommitted, the counterargument produced was an inverse function of source credibility (ie. less counterargument was produced against a highly credible source than a low credibility source). However, when the recipients were committed to their view, counterargument was a direct function of credibility (ie. greater counterargument was produced against a high credible source than a low credible source). It was also found that high commitment increased counterargument in relation to both the low and high credibility sources, but the results showed that commitment was a stronger factor in producing counterargument than was source credibility.

Thus, it could be said that the receiver's commitment operated as a mediating factor in the persuasiveness of source credibility. In the high commitment condition, subjects were less susceptible to the communication. In order to keep their overt behaviour consistent with their privately held beliefs and attitudes, they were more able to generate thoughts and arguments countering the communication topic.

This conclusion is consistent with an earlier conclusion made by Hovland and his associates [166] stating that "commitment acts to produce a certain irreversibility of opinion change."

Supportive, though not definitive, evidence on the above conclusion was also provided by Hass [167] who suggested that when individuals are highly committed to a position, a counterattitudinal communication from a highly credible source should elicit increased counterarguing over the same communication from a source of low credibility. Hass argued that "this occurs because a person's response to a communication is related to the perceived strength (credibility) of the persuasive attack. Since a counterattitudinal message from a highly credible source poses a stronger attack than does the same message from a source of low credibility, people will be more motivated to counterargue against it. Thus, when a person is highly committed to an issue position, increasing source credibility should reduce persuasion by enhancing counterarguing."

Bregman and McAllister [168] conducted a study to investigate the role of commitment, conformity pressure, and source credibility in eyewitness testimony. To implement their study, they used a videotaped auto accident as the witnessed event. Eighty undergraduates were employed, varying according to their commitment (committed versus noncommitted) and conformity pressure (under pressure versus under no pressure). The videotaped communication was attributed to either a high or a low credibility source.

The results indicated that subjects who made a previous commitment were able to resist the pressure only when the communication was presented by a highly credible source rather than a low credibility source.

On the other hand, several studies have examined the persuasive effect of source credibility when the message recipient's own behaviour served as a 'committing cue.' Tybout [169] conducted an experiment in which subjects received an eleven-minute appeal which recommended a particular health plan and was attributed to

either a high or low credibility source. After the message was presented, all message recipients were asked to endorse the health plan, and virtually all did. When this was followed by a request that some message recipients should join the programme, the highly credible source induced greater compliance with the request than did a low credibility source. By contrast, when the endorsement behaviour was made salient (by asking the subjects to indicate their motivation for endorsing the plan prior to requesting them to join the programme), the low credibility source induced significantly greater compliance than did the highly credible source. Thus it appears that the salience of behaviour is a necessary condition for its effect as a committing cue and in turn for increasing the persuasiveness of the highly credible source.

However, Dholakia and Sternthal [170] carried out an experiment which was intended to examine the persuasive effect of source credibility when message recipients' own behaviour serves as a committing (and in turn persuading) cue. The researchers used two sources, both of whom spoke in favour of a Consumer Protection Agency Bill which was before the Senate. One of the two sources was a Harvard trained lawyer (the high credibility condition) who was usually opposed to government publications and was frequently consulted for advice on the subject of consumer protection. The other source was an individual who was expected to gain by the implementation of the Bill (the low credibility condition). In addition, source credibility was measured by three dimensions: "trust," "expertise," and "training." The subjects' behavioural response was measured by whether or not they signed a petition supporting the Bill.

The findings of the study revealed that for both those who signed the petition and those who did not, the low credibility source was more persuasive than the highly credible source, though the effect reached conventional levels of statistical significance only for those who complied.

3.3.4 THE RECEIVER'S AUTHORITARIANISM

Bettinghaus [171] indicated that individuals characterised as authoritarians tend to be highly reliant on the moral authority of their own reference groups, and they are preoccupied with the relative power and status of other people and with their own power and status. Such people tend to make absolute judgments regarding the values they hold. They are not easily swayed by messages that might seem to contradict their beliefs or the authorities they rely on, despite the judgment of others that the message is rational and logical. Furthermore, the highly authoritarian person tends to identify with individuals in the groups that appear to have power.

It has been hypothesised that highly authoritarian people are more persuaded by high than low credibility sources, but low authoritarian people are less susceptible to source credibility. Empirical research tends to confirm this hypothesis with highly authoritarian individuals being strongly influenced by source credibility cues. Low authoritarian individuals, however, make more use of message cues in determining their attitude [172].

Despite the evidence indicating that authoritarian people are more sensitive to source credibility cues compared with less authoritarian people, this finding is not unequivocal. Johnson and his associates [173] found that "low authoritarian subjects exhibited greater positive attitude change when the message was attributed to a highly credible source than when the source had little credibility, whereas highly authoritarian individuals were not affected by the source's credibility."

Sternthal and his associates [174] attempted to explain the joint persuasive effect of source credibility and authoritarianism on the basis that low authoritarians will use the information presented as well as their own disposition toward the advocated

issue as a basis for their judgment. In such cases, source credibility is expected to have a limited persuasive effect. However, if the advocacy is one toward which the authoritarian person has little detailed knowledge, low authoritarians must rely on the source credibility as a basis for evaluation.

It appears that the empirical research on the interactive persuasive effect of source credibility and the receiver's authoritarianism yields discrepant findings, and "there is not presently a compelling explanation that orders these discrepant findings. However, an approach to future research emerges by making some basic assumptions about the mediating role of authoritarianism on information processing." [175]

Thus, it can be concluded that experimental research examining the persuasive effect of the interaction between source credibility and other factors indicates that those factors have an important mediating effect on the impact of source credibility. However, there are other factors which are related to the media which also influence the persuasive effect of source credibility. Those are discussed below.

3.4 MEDIA FACTORS INFLUENCING SOURCE CREDIBILITY

Very little empirical research has been conducted on the effect of different types of media on the persuasiveness of source credibility, although a considerable deal of research has been carried out on the relative effectiveness of different media.*

* Several studies on the effect of media on persuasion were examined in Chapter Three.

Morgan [176] attempted to examine the credibility dimension in relation to the use of different media. The study was mainly concerned with "news," the perceived credibility of different mass media, and the media preferred by the receiver. The findings of the study indicated that differences in credibility for different media were observed, and this was explained by the recipient's tendency to relate the credibility to his media choice characteristics.

Keating [177] has suggested that television is more effective than radio or newspapers in generating attitude change because it is more involving for the audience. Furthermore, it would appear that the more involving the medium, the more prominent are the characteristics of the communicators utilising the medium. In this respect, Keating argued that "television should increase the persuasiveness of the trustworthy (or credible) source because it highlights his positive characteristics. At the same time, television should decrease the persuasiveness of the untrustworthy (or low credibility) source since his negative characteristics have been emphasised."

However, Andreoli and Worchel [178] conducted a study to demonstrate that involvement is the key to the interaction between source trustworthiness and the medium. The study was aimed at investigating more carefully the interaction effect of source credibility and the medium on the persuasiveness of source credibility. Subjects who were first year psychology students participated in an experiment in which they were exposed to a communication dealing with the legalisation of liquor drinking for North Carolina. The communication message was presented in four identical versions by four types of communicators over three types of media, introduced in three conditions: television, radio, and written medium conditions.

Several aspects were examined by the researchers. Firstly, all subjects were asked to rate the general trustworthiness of four types of communicator: a candidate seeking to be elected to the State House of Representatives from the 4th District of North Carolina; a Representative representing the 4th District of the State House of Representatives; a Former Representative who had retired as Representative for the 4th District of the State House of Representatives; and finally, a newscaster who introduced himself as editorial consultant for Station WKBC. In actual fact, a graduate assistant played the roles of all of the four communicators.

Subjects were also asked to rate the specific communicator whom they heard or read on three semantic differential adjective pairs: honest-dishonest, sincere-insincere, and trustworthy-untrustworthy. The most trustworthy communicators were the former representative and the newscaster.

The second aspect examined by the researchers was the influence of the various communications on attitude change. Subjects were asked to answer a question stating "do you think liquor drinking should be legalised in North Carolina?" Both the pro-liquor and the anti-liquor communications produced significant amounts of attitude change. Subjects hearing the pro-liquor message held a more extreme pro-liquor attitude, and subjects in the anti-liquor message condition were more opposed to liquor drinking.

The third aspect examined was the main persuasive effects of each level of source credibility, the medium, and the interaction between them. The results indicated that there was a significant main effect of source trustworthiness in influencing attitude change. The results also showed that a television presentation was significantly more involving than radio presentation, and the radio presentation was significantly more involving than a written one. However, overriding this conclusion was the

interaction between source credibility and the medium of presentation. This was to the effect that for the former representative and newscaster (the most credible sources), the television presentation resulted in greater attitude change toward the communicator's advocated position than did the radio or written presentations. On the other hand, the candidate (the less credible source) produced significantly more attitude change toward his position when he employed a radio or written presentation than when he appeared on television.

In an attempt to interpret their results, the researchers commented, "However, the result of television's heightened involvement depends on the perceived trustworthiness of the communicator. In the case of an unbiased trustworthy source, the greater involvement of television is converted into a greater change in the direction of the speaker. Perhaps the communicator's credibility is heightened by the television presentation and as a result, the listener is more willing to accept his point of view. However, with an untrustworthy source, the more involving presentations simply highlight the communicator's questionable motives. It is possible that the increased attention to the communicator's negative characteristics emphasises his desire to have the audience change their attitude. This pressure to agree with the communicator may thereby threaten the listener's freedom to disagree with him."

[179]

According to psychological reactance theory* as developed by Brehm [180], when the individual perceives that his freedom of choice is threatened, this feeling leads to the arousal of psychological reactance. This in turn motivates the individual to restore his freedom of choice by resisting the pressure exerted by the communicator and maintain his initial position more firmly.

The most important conclusion that emerged from the study was that television is the most effective medium for a trustworthy source but the least effective medium for an untrustworthy communicator. In this context, television plays a key role in facilitating the persuasiveness of source credibility. This conclusion has significant implications for advertising strategists: in using television as a medium, advertisers must choose those spokespersons who have a high perceived credibility.

Finally, it is worth indicating that in the light of the lack of research in this area (ie. the media effect on persuasion), the study by Andreoli and Worchel is considered a landmark in the research effort on this area.

At this point, the discussion now turns to deal with the persuasive effect of the interaction between source credibility and other situational variables.

* This theory will be discussed in the next chapter.

3.5 SITUATIONAL FACTORS MEDIATING THE PERSUASIVENESS OF SOURCE CREDIBILITY

The situational specificity of the relationship between source credibility and persuasion has attracted very little research. Sigall and Helmreich [181] found that there was little difference between high and low credibility sources when the situation was perceived to be threatening.

Various aspects of the time dimension have been examined differently in many studies. Research on the "sleeper effect" has suggested that the source effect tends to narrow over time.*

Dholakia and Sternthal [182] varied the timing of an attitude measure relative to a behavioural request and reported a significant source credibility x timing interaction. When the behavioural request preceded the attitude measure, the low credibility source was more effective. When the attitude measure preceded the behavioural request, the high credibility source was more effective in inducing persuasion.

Harmon and Coney [183] conducted a study to examine the persuasiveness of source credibility in a marketing situation. They presented 200 businessmen with a message that advocated either leasing or buying a high technology product (personal microcomputer). The hypothesis was that consumers of the expensive products were expected to be more favourably predisposed toward leasing because it was likely to involve fewer risks than buying.

* The findings of the more significant studies will be discussed within the context of our discussion of "sleeper effect" in this chapter.

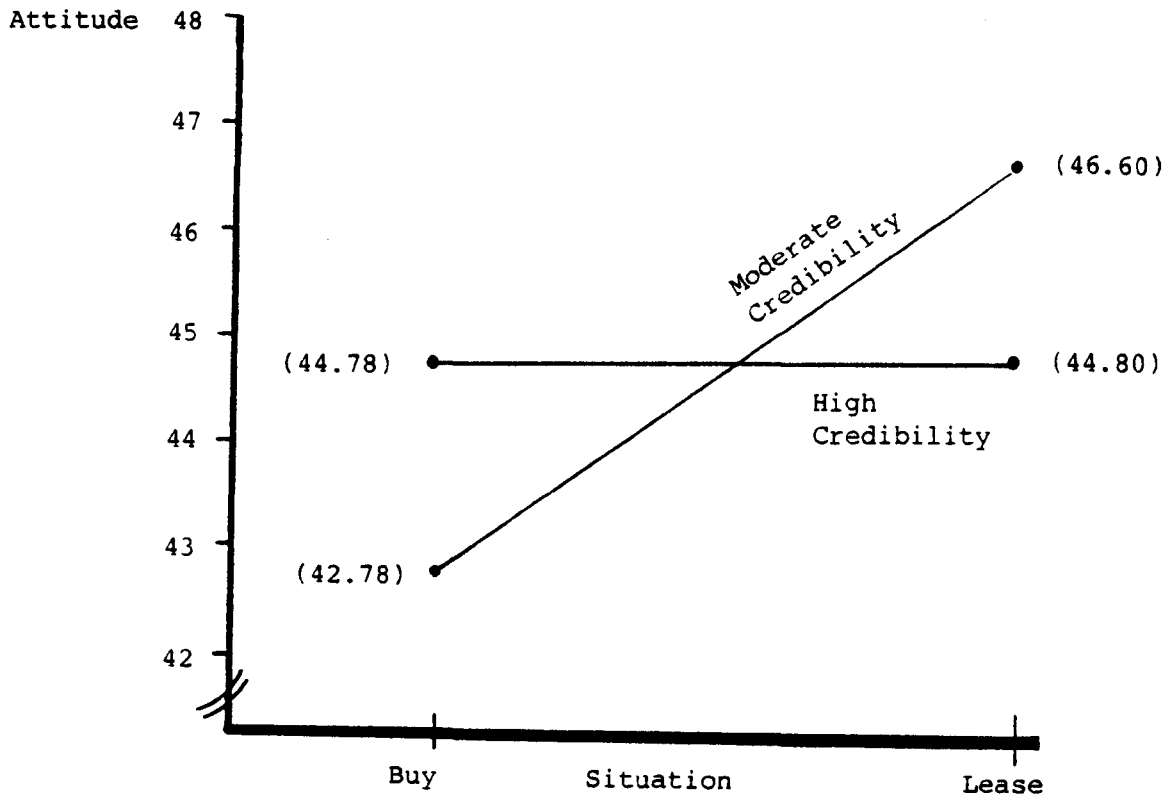
The buy and lease dimensions were manipulated through role-playing instructions. The subjects' favourable predisposition was operationalised by the use of the buy-or-lease situational variable. The buy situation was intended to evoke unfavourable thoughts (or predispositions), whereas the lease situation was expected to elicit favourable thoughts toward the advocated policy. Subjects were given a test booklet entitled "Consumer Opinion Survey" and were informed that they were to evaluate an advertisement featuring a testimonial for a fictitious microcomputer, called RIGEL-1. This testimonial was attributed to either a high or a moderate credibility source.

The high credibility source was identified as having a degree from a leading Business School (which represented the knowledge dimension), as a prominent small business consultant with extensive microcomputer experience (which represented the status dimension), and as an expert in the microcomputer field (which represented the expertise dimension). On the other hand, the moderate credibility source was described as the owner of a computer store that sold the advertised product line, as being very interested in the sales and profit potential of the personal computer (ie. personal gain is involved), as having conducted sales-training seminars on microcomputers, and as being firmly convinced that, with a proper sales approach, every household could be sold a microcomputer.

After they were exposed to the communication, subjects were asked to indicate their attitudes and intentions toward the product advertised. They were asked: "would you like to receive a visit, at your convenience, from a RIGEL-1 sales representative?" "This question was thought to be a reasonable measure of behavioural intentions because it represented a desire to obtain additional information about the product and to meet face-to-face with a company representative in a selling environment." Subjects were also asked to rate the source on a nonequivalent attractiveness dimension.

The major finding which emerged from the study was that the effects of source credibility on attitude and behavioural intention were situationally dependent. Specifically, "the moderate credibility source evoked more favourable attitudes and behavioural intentions toward the product than the high credibility source in the lease condition, while the high credibility source elicited more favourable attitudes and behavioural intentions in the buy condition which operationalised unfavourable own thoughts toward acquiring the microcomputer." Figure (5-2) illustrates these results.

Figure (5-2): Significant interaction effects of source credibility and situation on attitude toward product



Source: Harmon, R R and Coney, K A, "The persuasive effects of source credibility in buy and lease situations," *Journal of Marketing Research*, Vol XIX, May 1982, p259.

The researchers claimed that their findings were consistent with the cognitive response prediction. They pointed out that "the moderate credibility source generated more support argumentation than the high credibility source in the lease condition. The reverse was true, though not statistically significant, in the buy condition."

Finally, the researchers concluded that "the results of the study are of particular interest to advertisers who depend on a credible spokesperson to convey their advertising messages. The results show that a highly expert and trustworthy spokesperson does not enhance persuasion in all situations. The high credibility source is more effective if individuals are unfavourably predisposed toward the advocacy and is a persuasive liability if the audience is favourably predisposed."

The relevant feature of this study is that it had several methodological strengths concerning both internal and external validity. In relation to internal validity, the researchers measured source credibility on three major dimensions: knowledge, status, and expertise. These dimensions provided a valid operationalisation of the concept and as a result allowed the dependent measure to be attributed to this rather than any other (perhaps extraneous) factors. The study also had better external validity than many others. For example, the subjects of the experiment were businessmen rather than students normally used in similar experiments. All subjects were full-time managers for local business firms, and were a significant target market for personal microcomputers. This has significant practical implications for a marketing concept. Moreover, the researchers' choice of lease and buy to operationalise the subjects' favourability (ie. their initial opinion) was also of practical significance. "The incidence of leasing activity for consumer goods (eg. the personal microcomputer) has increased dramatically in recent years." [184]

Finally, this study and other studies provided the evidence that the persuasive communication situation has an important mediating effect in terms of the persuasiveness of source credibility. However, further research is clearly needed to investigate the impact of specific situations, especially advertising situations, on the relationship between source credibility and persuasion.

3.6 THE PERSUASIVENESS OF SOURCE CREDIBILITY IN HIGHER ORDER INTERACTIONS

In the context of research efforts attempting to clarify the process underlying source credibility effects in attitude change, considerable attention has been devoted to examining interactions between source credibility and more than one kind of factor (eg. source, message, or receiver factors).

Stoltenberg [185] investigated the effects of source credibility, message quality, and a receiver's involvement in the issue advocated in relation to social influence. The study was aimed at testing the basic assumptions underlying the Elaboration Likelihood Model. The model describes two distinct routes to persuasion: the central route which requires cognitive effort to be devoted in processing the issue-relevant information contained in a message and is primed by high personal involvement; and the peripheral route which is made more likely with low involvement and relies on non-content cues and does not involve much cognitive effort.

To implement his experiment, Stoltenberg used two groups of subjects from large midwestern American Universities. The subjects were exposed to either strong or weak arguments supporting a proattitudinal position for the institution of a mandatory career exploration and study skills course. They were also informed of the support of this position by a group of

students either similar or dissimilar to themselves (source credibility manipulation). Personal involvement was varied by telling the subjects that the course would be required at their own University in the following year, or at another University.

The major hypotheses tested were: (1) "when involvement is high and the quality of arguments supporting the proattitudinal advocacy is high, more persuasion is expected for the high credibility than the low credibility source conditions," (2) "when the involvement is high and the quality of arguments supporting the proattitudinal advocacy is low, little or no difference is expected in persuasiveness between the high and low credible source conditions," (3) "when involvement is low and the quality of arguments supporting the proattitudinal position is low, a more favourable attitude toward the advocacy is expected for the high credibility than the low source credibility conditions," (4) "when involvement is low and the quality of arguments supporting the proattitudinal position is high, little or no difference is expected in persuasion between the high and low credibility conditions," (5) "the effects will be minimal, but more thinking will occur under conditions of high involvement with high credible sources than low credible sources. When strong arguments are presented this will result in more favourable thoughts and fewer counterarguments in high than low credible source conditions. When weak arguments are used more counterarguments and fewer favourable thoughts are expected for high than low credible source cells," (6) "more thinking will occur with low than high credibility sources when the issue is of low personal relevance (low involvement). With strong arguments, however, more favourable and fewer counterarguments are expected for low than high credibility conditions. Conversely, with weak arguments, more counterarguments and fewer favourable thoughts are predicted for low than high source credibility cells."

Although none of these hypotheses was substantially supported in one University sample, reasonably strong support was reported for hypotheses one, two, and four and a trend in the appropriate direction was found for the third and fifth hypotheses from the other sample. As it was admitted by the researcher himself, "the results provide serendipitous evidence for discriminant validity and support for the model (ie. Elaboration Likelihood Model)."

However, if these results are compared with those obtained by Johnson and Scileppi and others pertaining to the mediating effect of the receiver's involvement in the advocated issue on the persuasiveness of a high versus low credibility source, they point to a different conclusion. According to the findings of Stoltenberg's study, the high credibility source induced more persuasion than the low credibility source when involvement is high and the quality of arguments supporting the advocated proattitude is high. Although this seems clearly to contradict the findings of previous research that a high credible source is more persuasive than a low credible source when the receiver's involvement in the communicated issue is low, these conflicting results can be attributed to the emergence of the quality of the message as a second mediating variable in the persuasiveness of the source. It can be argued that the high quality of arguments supporting the proattitudinal advocacy accounts for these contradictory findings. Also, in the Stoltenberg study, little or no difference was reported in persuasiveness between the high and low credibility sources under two conditions: (1) when the involvement of the receiver in the advocated issue was high and the quality of arguments supporting the proattitudinal advocacy was low, and (2) when the involvement was low and the quality of the arguments was high. This finding suggests that the low quality of the arguments supporting the proattitudinal advocacy and the low involvement of the receiver have an offsetting effect in the persuasiveness of source credibility. Again, although this finding contradicts the results of previous research

conducted on the effect of the receiver's involvement on the persuasiveness of source credibility, this contradiction is primarily due to the effect of the quality of the arguments.

On the other hand, Stoltenberg's study suffers from an internal validity problem often observed in many studies examining the persuasive effect of source credibility. The problem stems from considering the similarity between source and receiver as the only dimension of credibility. Moreover, the relationship between the source credibility and source/receiver similarity has not been observed in an advertising context.

By contrast, in the studies that have manipulated personal involvement directly, enhanced source credibility has enhanced persuasion only in low involvement conditions. For example, Sternthal and his associates [186] concluded that "when message recipients were negatively predisposed to the communication issue, the highly credible source induced more agreement than the less credible communicator, though source credibility did not affect thought generation."

Also, Johnson and Scilleppi [187] conducted a study in which they concluded that enhanced source credibility has enhanced persuasion only in low involvement conditions.* Moreover, the study of Heesacker, Petty, and Cacioppo demonstrated that source credibility has "an impact on attitudes for a high involvement issue for subjects who were relatively unmotivated to articulate and differentiate external stimuli. Importantly, the effect of

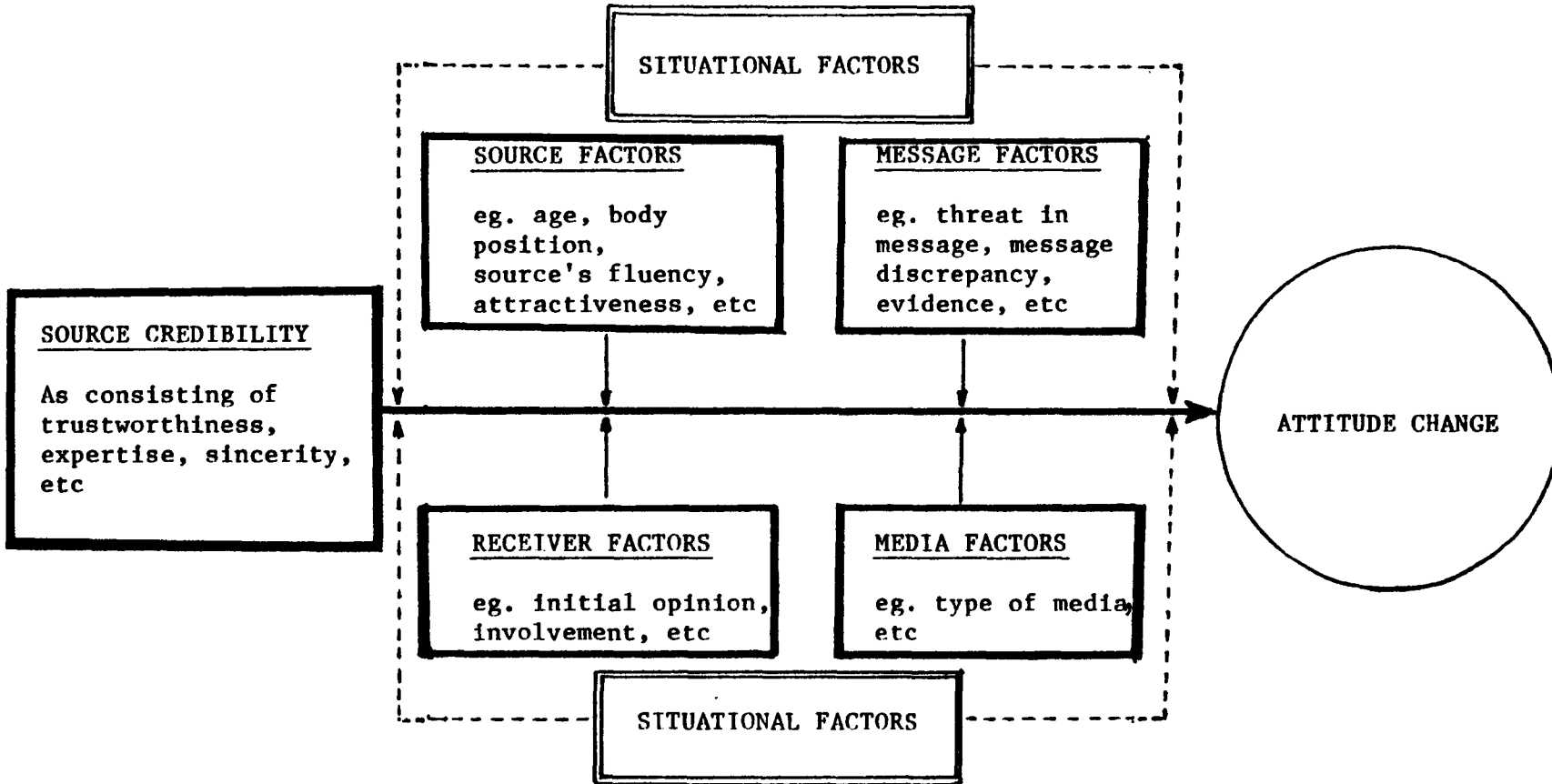
* The study was reported in more detail earlier in this chapter.

enhanced source credibility for these subjects was not to increase persuasion uniformly, as is the case typically for low involvement issues; rather, the effect was to increase message scrutiny."

Finally, it could be concluded from the above review of the factors mediating the persuasive effect of source credibility that the relationship between source credibility and persuasion (or attitude change) is not a simple one. A number of factors seem to influence this relationship.

Figure (5-3) illustrates the relationship between source credibility and other variables on the one hand, and the effect of this relationship on persuasion on the other hand. This depicts a number of factors related to source, message, media and receiver. These factors seem to mediate the persuasive effect of source credibility either individually or in combination. However, as the figure illustrates, the relationship between source credibility and persuasion (or attitude change) seems to be a complex one. Part of this complexity is due to the long versus short-term effects of attitude change produced by source credibility. To clarify this latter point, the discussion now turns to deal with a relevant issue, the sleeper effect of the persuasion produced by source credibility.

Figure (5-3): Factors mediating the persuasiveness of source credibility



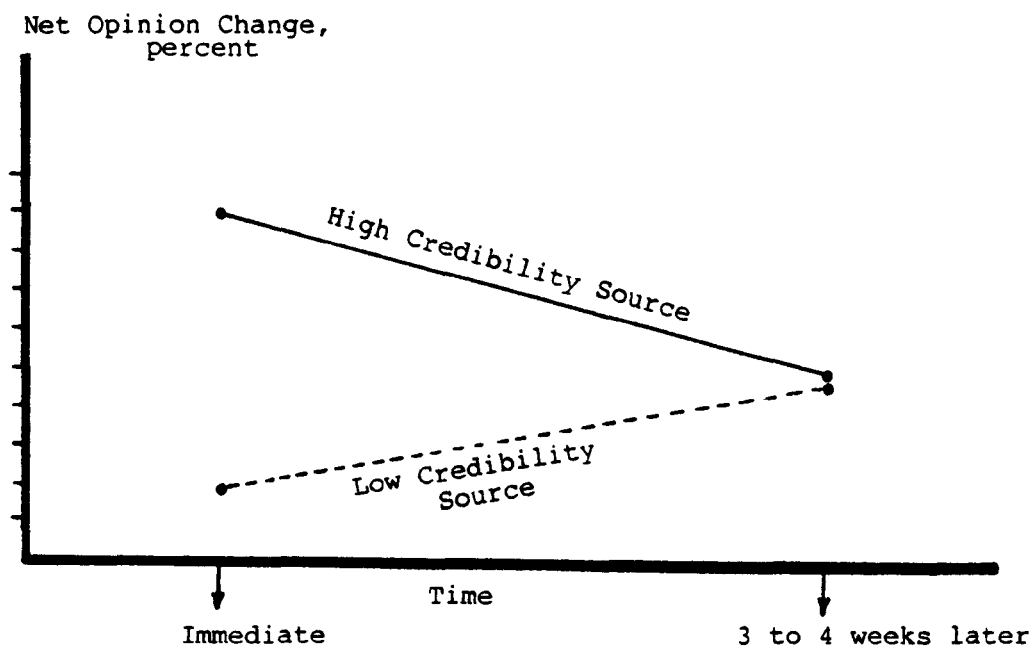
Source: Constituted by the researcher from the literature review.

SECTION 4: THE SLEEPER EFFECT OF THE PERSUASIVENESS OF SOURCE CREDIBILITY

Although sources of high credibility were found to be more persuasive than those of low credibility, delayed post experimental measures in some experimental studies indicated that low credibility sources manifested greater persuasive effect with the passage of time. This phenomenon is termed the "sleeper effect." [188]

It comprises the situation where, compared with a measure of attitude change taken immediately after a communication message, a decrease occurs over time in the extent to which receivers agree with a high credible source's message but an increase occurs over time when the message is presented by a low credibility source. This "sleeper effect" is illustrated in the following figure.

Figure (5-4): Sleeper Effect



Source: M Wayne DeLozier, The Marketing communications process, op cit, p77.

However, the term "sleeper effect" is most often used more restrictively to refer to the particular delayed increase in attitude change that is associated with the low credibility source (or as it has been called, the discounting cue hypothesis) [189]. In this context, Gruder and his associates [190] distinguished between two types of sleeper effect: the absolute and the relative sleeper effects. According to them, "An absolute sleeper effect occurs when attitude change increases reliably over time in a discounting cue group compared with the corresponding temporal change in a no-message control group." While this operational definition corresponds to the original conceptual definition of a sleeper effect - ie. the particular delayed increase in attitude change that is predicted from the discounting cue hypothesis, developed by Hovland and his associates [191], the most frequently used operational definition of the sleeper effect is termed the "relative sleeper" effect. This has been defined as the effect which "is inferred when attitude change increases more or decays less, over time in a discounting cue group than in some other group that reads the same persuasive message." [192]

This distinction suggests that relative sleeper effects do not necessarily result from the processes of discounting cues (ie. in the low credibility condition alone). Furthermore, "statistically reliable relative sleeper effects can result when there is a decrease, no change, or a trivial increase in attitude change over time in a discounting cue group." [193]

It seems clear that only the absolute sleeper effect corresponds to the traditional definition which calls for a reliable increase in attitude change produced by the low credibility source. For instance, Hovland and his associates [194] summarised their data by stating, "some of the effects of the film may be "sleepers" that do not occur immediately but require a lapse of time before the full effect is evident."

Also, in the context of manipulations of low credibility, Insko [195] pointed out that "this increase in the influence of the low credibility source over time was called the "sleeper/effect.""

While the term "absolute sleeper effect" refers to more appropriate operational definitions, namely, a temporal increase in belief change within a discounting cue group or a relatively greater increase in this group when compared with a no-message control group [196], it should be noted that the term "sleeper effect" can be used in a general sense to describe "a delayed increase in any dependent variable, not just in belief. Even in persuasion research there is no need to restrict the term to contexts in which the discounting cue hypothesis is invoked as an explanation." [197]

However, the most relevant question to be raised is, does the phenomenon of sleeper effect really exist? This question leads us to review some of the literature relevant to the sleeper effect in the following section.

4.1 THE EXISTENCE OF THE SLEEPER EFFECT

Hovland and his associates [198] were the first researchers to report the sleeper effect, in an experiment that was designed to evaluate the impact of a World War II propaganda film called the "Battle of Britain," on soldiers' beliefs.*

* In the social psychology literature on persuasion, the terms attitude and belief have often been used interchangeably, although their definitions have been differentiated. However, it should be recognised that in certain cases attitude may be the more appropriate term.

A questionnaire asking for opinions about Britain was completed by ten infantry training companies. After this, five of them saw the film, whilst the other five did not (these acted as a control group). Five days after the soldiers' exposure to the film, half of each group filled out another questionnaire containing both opinion items and factual questions about Britain. Nine weeks later, the other half of each group filled out the same questionnaire. In the analysis, the responses after five days were compared with the responses after nine weeks. The findings of the study indicated that the factual material suffered with the passage of time. More was forgotten after nine weeks than after five days. However, some of the opinion responses showed greater change in the desired direction after nine weeks than after five days, while the rest of the responses showed the expected decrease in desired change. This difference was interpreted by the researchers as "raising the possibility of a sleeper effect."

The researchers suggested that the discounting cue explanation was most likely to account for their results. The hypothesis specified "(a) that the army, which sponsored the film, was seen as a biased and therefore untrustworthy source for war-relevant information; (b) that its sponsorship of the film led the soldiers to initially discount the filmed message, thereby reducing its immediate impact on their beliefs; (c) that as time passed the source of the message was forgotten or dissociated from the message, thereby removing the change-inhibiting force of the untrustworthy source; and (d) that once the source was no longer linked to the message, soldiers' attitudes rose to the residual level of belief change caused by the message alone." Thus, this interpretation suggests that a sleeper effect is supposed to result whenever the residual impact that the message has at the time of dissociation is greater than the initial impact it has when it is paired with the discounting cue (assumed to be the low credibility source).

Three subsequent experiments were designed to explore these issues in more detail.

In a study by Weiss [199] subjects were presented with a communication message containing a discounting statement about smoking. One of the groups was told that "evidence on the effects of smoking is by no means complete, and we are learning new facts every day." The major hypothesis was that the group that heard this discounting treatment would show less of the intended opinion change immediately after exposure than the other group which did not, but show the same amount of change in the long-run, after the discounting effect had worn off. Opinion measurements were carried out before exposure, immediately after exposure, and three weeks and six weeks later. The findings revealed that "the group that heard the discounting statement and the group that did not were more alike in extent of opinion change later on than they were immediately after exposure." Thus, the sleeper effect showed itself again.

Kelman and Hovland [200] carried out a study in which they had subjects learn a persuasive message from a source of high or low credibility, and the source was or was not reinstated at the delayed testing two weeks later. When no reinstatement took place, the results showed that attitude change appeared to increase with time in the low credibility condition and to decrease with time in the high credibility condition. But when reinstatement took place (reversing any dissociation that might have occurred) neither the increase in change in low credibility nor the decrease in change in high credibility was obtained.

Kelman and Hovland reasoned that "the process of belated dissociation of the message and the cue applies both to cues that cause initial rejection of a message and to cues that enhance a message's initial impact. But while the dissociation of discounting cues should facilitate sleeper effects, the

dissociation of message-acceptance cues should accelerate the decay of initial belief change." Thus, Kelman and Hovland coined the term 'dissociative cue hypothesis' to refer to the common process of first associating and then dissociating message-acceptance or message-rejection cues from a message. In this context, the discounting cue hypothesis is a special case of the more general dissociative cue hypothesis.

However, subsequent research conducted on the sleeper effect yielded contradictory findings. Schulman and Worrall [201] proposed that the sleeper effect could be explained by the spontaneous association of source characteristics and communication content. The researchers manipulated source credibility over time. Opinion measures were taken two weeks before, immediately after, and four, ten and twenty-six days after the communication.

The results, which partially replicate the sleeper effect, suggested that opinion change, after exposure to a persuasive communication, is related to (1) whether the source is salient (spontaneously thought of) and (2) whether the source, if salient, has the effect of either adding to or subtracting from the baseline effect of the communication by itself. The low credibility sources were initially less salient and added to the baseline effect. The high credibility source influenced subjects to take the message content at face value. The low credibility source, on the other hand, operated against accepting the message content at face value. This effect tended to weaken over time, as subjects dissociated source and message.

Greenwald and Gillig [202] conducted a series of five investigations in which they examined the effects of counter-argumentation and discounting on persuasion. The discounting condition attributed the message to a low credibility source. In the counterarguing condition the subjects received a counter-

arguing defence prior to the communication. The researchers expected to find that counterarguments were more effective, over time, in resisting persuasion attempts than in discounting. They were unable to observe a sleeper effect in any of their experiments, which led them to conclude either that the sleeper effect does not exist or that it is dependent on "rather subtle forms of experimental manipulations."

These findings have been replicated by Gillig and Greenwald [203]. They argued that high credibility suppressed counterargument, and they conducted an experiment in which they used the refutational technique (arguments and counterarguments) in influencing opinions. Two weeks later, they found no evidence of the sleeper effect. The researchers attributed their findings to the effect of the refutational appeal. They also claimed that they repeated the original experiment by Hovland and his associates and found no evidence of the "sleeper effect." They concluded that "the sleeper effect should be laid to rest."

Capon and Hulbert [204], in a critical review of the sleeper effect literature, arrived at the conclusion that "the pattern of findings is far from conclusive ... either for or against the existence of a sleeper effect." They cited a number of methodological and definitional problems as possible reasons for the lack of clarity.

Sternthal [205] stated that "the sleeper effect phenomenon is probably attributable to a regression effect. Since the high credibility source initially evokes more attitude change than the low credibility source, greater reversion toward one's initial opinion will occur in the high credibility condition, which will tend to eliminate the source effect, over time."

However, other studies suggest that the conclusion that the sleeper effect does not exist, requires qualification.

Gruder and his associates [206] argued that it would be premature to accept this conclusion, for two reasons:-

- (1) "The discounting cue hypothesis is based on a paired-associate model of attitude change that has successfully guided much research on immediate attitude change."
- (2) "A "strong test" is required before 'no difference' findings can be used for accepting the null hypothesis (ie. there is no sleeper effect) as opposed to not rejecting it (ie. we failed to find a sleeper effect)."

They suggested that conducting a strong test requires the identification of the necessary theoretical conditions for the sleeper effect to occur. They continued that the discounting cue hypothesis which predicts the occurrence of the sleeper effect provides four conditions for this effect to occur. These conditions are: "First, the message must have a significant initial impact on attitudes; second, the discounting cue must be powerful enough to significantly inhibit the attitude change that the message would otherwise have caused; third, the discounting cue and message must become dissociated before delayed measurement takes place; and fourth, the level of attitude in a message-only group at the time of delayed measurement must be higher than the level that is found in the discounting cue group immediately after exposure to the message."

In the light of this perspective, Gruder and his associates conducted two experimental tests of the absolute sleeper effect predicted by the discounting cue hypothesis. In the first experiment, subjects from introductory psychology courses were randomly assigned to experimental or control groups (no message, message only, and message plus discounting cue), and their

attitude was measured twice (immediately after reading a persuasive message and again five weeks later). Subjects were presented with two message topics. One of the two messages was titled "The Four-Day Work Week: No Answer to Employee Dissatisfaction." This message presented arguments supporting the belief that "despite its innovative nature and claimed successes, the four-day work week produces more problems for the worker than it solves, and thus is doomed because it will decrease rather than increase worker satisfaction." The second message was shorter and titled "Right Turn on Red Reconsidered" and argued against a recently enacted state law allowing motorists to make right turns on red lights at most intersections.

The discounting cue manipulation consisted of a "Note to the Reader" following the message in which the conclusion of the message was restated and labelled as false. Moreover, the message was said to have been refuted because it was inaccurate and wrong.

Attitudes towards each issue were measured by having subjects respond to six attitude items, half of which were positively worded and half negatively. At the immediate posttest, the 12 attitude items were presented together with 18 items on three unrelated issues, while at the delayed posttest, the items were presented in a different order and were interspersed among 42 other items.

The results of the study provide evidence that suggests that the 4-day message provided a strong test of the absolute sleeper effect and that the right turn message probably does not. Also, the results showed that "there appears to have been an absolute sleeper effect for the 4-day message, but not for the right turn message."

The researchers concluded that "Logically, the absolute sleeper effect we obtained can only be attributed to the processes of initial dissociating and subsequent dissociation after all plausible alternative interpretations have been ruled out." However, the researchers acknowledged that the results they obtained were not statistically significant. Thus, a second experiment was required to replicate the finding.

The second experiment was designed to see if an absolute sleeper effect could be obtained with "qualitatively different kinds of discounting cues." In addition, the experiment was aimed at "measuring dissociation directly, rather than having to rely on proxies in order to make assumptions about whether dissociation had occurred by the final delay interval."

The experiment involved five discounting cue groups and a message-only group that all read the same experimental message, and a no-message group that read an irrelevant message. In each of these seven groups, attitudes were measured twice, once immediately after reading the message and again six weeks later, creating a repeated measures design as in experiment 1. The other half were measured only once, after six weeks, thereby permitting an estimate of the effects of repeatedly measuring attitude. The messages were first professionally printed and then photocopied to look as if they had been reproduced from a magazine. The message used in the message-only and discounting cue conditions was the same 4-day work week essay presented in the first experiment, but it was edited to sharpen the persuasive arguments presented within each paragraph. The no-message group read an unrelated message of comparable length.

Discounting cues were operationalised in two ways. In the first, the discounting cue was presented as a "Note from the Editor" and it was in two versions. One declared the message conclusion to be false without restating it (called low credibility level 1).

The second version was worded almost identically to the discounting cue used in the first experiment: ie. the conclusion of the message was restated and was declared to be false (called low credibility level 2). The message-only group also had a "Note from the Editor," but it was neutral and not intended to cause discounting.

The other method used to operationalise the discounting cue was to alter the concluding paragraph of the message so that it would arouse reactance. This manipulation was called "Reactance Only." In addition, two more discounting cues were created by combining the reactance cue separately with the low credibility level 1 and the low credibility level 2 cues. Accordingly, five manipulations of a discounting cue were created: Low credibility level 1, Low credibility level 2, Reactance only, Reactance + low credibility level 1, and Reactance + low credibility level 2.

Attitudes were measured immediately after reading the message and approximately six weeks later. The results of the study indicated that the strongest tests of the absolute sleeper effect predicted from the discounting cue hypothesis were in the Reactance + low credibility level 1 and Reactance + low credibility level 2, and the low credibility level groups. In each, "initial attitude change was suppressed, the message and discounting cue(s) were dissociated by the 6-week posttest, and there was sufficient residual impact of the persuasive message at the posttest so that the level of attitude in the discounting cue groups could show a statistically significant increase." The results also provided evidence for an absolute sleeper effect, and "a statistically significant interaction of experimental group (discounting cue versus no message) and time of measurement (immediate versus 6-week delay)."

Thus, it can be concluded that both experiments provide a strong test of the absolute sleeper effect that is predicted from the

discounting cue hypothesis (which was created with the 4-day work week message in the first experiment and with three discounting cue groups in the second experiment). In addition, statistically reliable absolute sleeper effects were obtained in these four cases. However, in the right-turn-on-red message in the first experiment and with two groups in the second experiment, no absolute sleeper effect was observed in these cases. It seems, then, that absolute sleeper effects can be obtained once the necessary strong tests have been implemented.

In two subsequent experimental studies, Hennigan and his associates [207] attempted to test the hypothesis that "a sleeper effect is thought to be more likely to occur the less the initial attitude change typically decays over time, so the more the initial attitude change, the stronger the force that countervails against a sleeper effect." The expectation was that a sleeper effect would result when the transmitter set was combined with a low credibility source that suppressed initial attitude change, and that relatively slow decay would result when the transmitter set was combined with a high credibility source.

The first experiment was designed to determine whether exposure to a persuasive message leads to more persistence of attitude change under a transmitter than under a receiver tuning set. Source credibility was manipulated to examine whether the enhanced persistence among transmitters takes the form of a sleeper effect when the source is of low credibility and relatively slow decay when the source is of high credibility. For all subjects, attitudes were measured twice: immediately after receiving the message and later at one of three delay intervals - two, five, or nine weeks after the first measurement.

The findings of this experiment revealed that "attitude was initially more favourable to the message conclusion in the high-credibility groups than in the low-credibility groups."

They also showed that "among transmitters, this initial superiority of high credibility dissipated over each of the delay periods. But among receivers, the initial superiority of high credibility was still apparent at the 2-, 5-, and 9-week delay intervals." On the other hand, "the initial attitude change caused by the message had decayed in the high-credibility condition, had increased in the low-credibility condition, and had remained at the same level in the no-source condition." This interaction, however, revealed no such effects among receivers. The most interesting effect was the set credibility interaction because it reflects the same pattern of means that was obtained for the persistence of attitude change.

The increase in subjects' attitudes over time in the low credibility transmitter group was indeed reliably different from the pattern found in the low credibility receiver group and provides evidence for a relative sleeper effect (although the increase was not statistically reliable). However, when tested against the no-message control group's appropriate "baseline," there was no evidence for an absolute sleeper effect. The researchers attributed the failure to observe an absolute sleeper effect "to the unexpected shift in attitudes that occurred over time in the no-message control group. Alternatively, it may be due to the fact that although the low-credibility source reduced the immediate attitude change attributable to the message, it did not suppress it entirely."

The second experiment was conducted to investigate the feasibility of the dissociative cue explanation of the unexpected pattern of persistence obtained in the first experiment. The major purpose of the second experiment was "to test whether receivers are more likely than transmitters to process the message so as to create stronger associative links between the source and the message." It was also designed to identify the

nature of any message-related thoughts that were salient to subjects during exposure to the message or in the subsequent delay interval.

The major finding of the second experiment was that receivers spontaneously mentioned the source sooner and more frequently than did transmitters. This finding is consistent with the hypothesis that the receiver set leads to a stronger association between a persuasive message and a message acceptance or rejection cue. It also supported the dissociative cue explanation of the temporal pattern of attitude change obtained in the first experiment. According to this explanation, "transmitters form weaker associations than receivers between the content of a message and its source and become more oriented to the message content. Consequently, the source is more rapidly dissociated from the message, and the source's influence declines over time relative to the influence of the message. When it is the influence of a high-credibility source that declines, the initial attitude change caused by the source dissipates; when it is the influence of a low-credibility source that declines, the initial inhibition of attitude change caused by the source dissipates and attitude change increases over time. In the receiver conditions on the other hand, the message-source links are stronger and the initial influence of the source persists. This means that initial levels of attitude change tend to be maintained in both the high and low-credibility groups."

To sum up, Hennigan and his associates concluded that they "suspect that a perspective based on paired-associative learning is sufficient to explain the relatively greater persistence conferred on the high-credibility receivers, but that the associative perspective may have to be augmented to explain the particular pattern of persistence found with the low-credibility transmitters."

It seems clear that there is no conclusive evidence of the persuasiveness of high versus low credibility source, and how long this persuasiveness may last. However, as was noted, in terms of immediate attitude change, high credibility sources tended to be somewhat more effective than low credibility sources. But under certain circumstances (which were mentioned earlier), a low credibility source proved to be more influential, especially in the long-run.

In fact, this conclusion raises the important question of whether, given the existence of the sleeper effect, and the explanation of the discounting cue hypothesis for its occurrence, this explanation is the only one to be considered in explaining the sleeper effect.

DeLozier [208] suggested that any discussion about the attribution of the sleeper effect must consider the fact that "the explanation lies in an understanding of the factors which underlie opinion change. First, the receiver must remember the arguments or the content of the message; otherwise opinion change will not last. Second, the receiver must have some motivation to accept the communicator's conclusions."

This conclusion was supported by Hovland and his associates [209]. They stated that "opinion change following exposure to a communication depends on retention both of the informational content and of the incentives for acceptance."

Accordingly, at the time of initial exposure to the persuasive message, it is assumed that audiences exposed to both high and low credible sources learn the content of the message to the same degree. However, a high credibility source enhances acceptance of the arguments, whereas a low credibility source interferes with acceptance of the same arguments. Over time, however, audience members forget the source faster than they forget the

content of the message. Thus, "under circumstances where there is a very close association between the source and content of a communication, the effect of the communicator may be more enduring." [210]

In their review of thirty years of relevant research, Cook and Flay [211] concluded that "despite particular instances of total persistence or sleeper effects attributable to forces other than the discounting cue hypothesis, decay of initial change was the modal finding. Therefore, it is important in designing adequate tests of the sleeper effect to ensure that decay forces of all kinds are minimised."

It is worth noting that the implications of the "sleeper effect" for advertising communication are intriguing. As Percy and Rossiter [212] suggested, "when a strongly persuasive argument is called for (for example, when one is attempting to refute a generally held, highly negative, salient position), by a clearly biased source (such as when cigarette companies argue that cigarettes are not damaging health), one would be better off acknowledging the source rather than attempting to conceal it. This would assume that over a period of time the message would gain credence as it was dissociated from the source."

Also, "when advertisers utilise highly credible sources in their message, they must be prepared financially to reassociate frequently the source with the company's product and message. Companies with less financial resources may be just as well off using a low-credibility source (who presumably would cost less to hire) rather than a high-credibility source, and to advertise less frequently." [213]

However, to provide a better understanding of the mechanism by which source credibility operates in order to induce persuasion, it is appropriate to turn our discussion to deal with explaining

the persuasive effect of source credibility. Within the context of this discussion, we shall present the cognitive response theory approach. This will be the subject of the following section.

SECTION 5: EXPLAINING THE PERSUASIVE EFFECT OF SOURCE
CREDIBILITY: A COGNITIVE RESPONSE THEORY APPROACH

As outlined in the previous sections, experimental investigations of the persuasive effects of source credibility have yielded differential results for high versus low sources. These findings can be theoretically explained by the cognitive response theory [214].

According to this theory, a message recipient's initial opinion is an important determinant of persuasive influence. In response to a persuasive message, individuals rehearse the thoughts and ideas which are relevant to those presented to them. These thoughts determine both immediate and long-term acceptance of the persuasive communication message. In effect, individuals persuade themselves to adopt the position advocated by the message or reject it.

Sternthal and his associates [215] pointed out that the rehearsal process involves both long and short-term memories. They indicated that "information actively being processed is held in short-term memory, whereas much, if not all, the information a person has processed earlier is held in long-term memory." The researchers added, "An incoming communication is initially represented more or less faithfully in short-term memory as thoughts or cognitive responses. These thoughts trigger the retrieval of further issue-relevant information, or initial opinions, from long-term memory resulting in their registration in short-term memory. Those thoughts in short-term memory that are rehearsed are consolidated and determine individuals' attitudinal response to an appeal."

Thus, cognitive response theory underscores the importance of the individual's initial opinion as a determinant of his response to persuasive communication message.

Accordingly, the theory predicts that, if the individual's initial opinion is opposed to the communicator's message, relevant negative thoughts or counterarguments will be retrieved from long-term memory. The retrieval of these thoughts increases the likelihood of message rejection. By contrast, if the individual has a favourable predisposition to a message appeal, incoming information will lead to the retrieval of supportive arguments and in turn induce acceptance.

In this sense, "cognitive response theory may be contrasted with the traditional learning theories that emphasise the role of message content, source credibility and other external factors in the persuasion process. Cognitive response theory suggests that message acceptance is heavily dependent upon situational and individual difference variables. In this context, the traditional view of comprehension of a persuasion communication involves no more than a successful initial decoding of the message, but message learning requires the receiver to relate new information to an already existing belief structure." [216]

Therefore, "a successful persuasive message is one that increases the probability of the receiver relating the advertised product or service to the receiver's existing belief structure on subsequent exposure to either additional advertising or during purchase situations." [217]

This suggests that, rather than evoking a playback of message content, one must alter cognition in a direction positively related to buyer response. Thus, according to cognitive response theory, the comprehension of the message is an active process as receivers generate new beliefs in the course of processing information and engaging beliefs from long-term memory.

Nevertheless, the important aspect of the present discussion is to state cognitive response theory's explanation of the

persuasive effect of source credibility.

According to the theory, the individual's initial opinion has a crucial role in determining his response to a persuasive communication. The theory accounts for the main persuasive effect of source credibility in two situations. First, when the receiver has an opposing initial opinion to that which is advocated by the communicator. Second, when the receiver is favourably predisposed to the message. For those opposed to a message, a highly credible source serves as a cue inhibiting the generation and retrieval of negative arguments (ie. counter-arguments) from long-term memory, whereas a low credibility source does not have this effect [218].

This conclusion has been supported by Cook [219]. He found that the counterarguments generated in response to an appeal were inversely related to the source's credibility. He also found that a highly credible source is more influential than one of lower credibility when message recipients were initially opposed to the position advocated. In this case, a high credibility source inhibited the generation of the negative and other counterarguments relevant to the issue advanced in the message appeal. By contrast, when message recipients were initially in favour of the advocacy, a moderately credible source was more influential than a highly credible source in generating supportive arguments to augment the advocacy. Cook argued that the moderately credible source engenders the motivation to generate support arguments to augment the message, whereas a highly credible source is likely to engender the feeling that the position is adequately represented and that support argumentation is unnecessary.

Consistent with these expectations, McGinnies [220] observed that when individuals had an extremely negative initial disposition toward an issue, a highly credible source was more influential

than a low credible source. This conclusion was confirmed by Bock and Saine [221] and Sternthal and his associates [222] who reported that a low credibility source induced greater persuasion than one of high credibility when the issue was one toward which subjects had a positive initial disposition.

Cognitive response theory also accounts for the interactive persuasive effect of source credibility and other mediating variables. For instance, highly discrepant or threatening messages evoke substantial counterargumentation that is offset by a highly credible source but not by a low credibility communicator. As a result, credibility has a systematic effect in relation to these messages. By contrast, when low levels of discrepancy or threat are presented little counterargumentation is generated [223].

On the other hand, factors such as unfamiliar evidence and a message incongruous with the source's best interests serve to inhibit counterargumentation. This accounts for the failure to observe a credibility effect when these message conditions prevail [224].

Cognitive response theory can also account for the joint persuasive effect of source credibility and the timing of the source identification. The findings that the systematic effect of credibility dissipates over time can be explained by the fact that message recipients forget the communicators more quickly than the content of the message itself. Thus, "with the passage of time, the credibility cue loses its effect on the information retrieval process and no systematic credibility effect is observed." [225]

Empirical evidence supporting this interpretation is provided by Sternthal and his associates [226]. They found "no differences in the number of either support arguments or counterarguments

generated in response to sources varying in their credibility when the source's identification was delayed until after the message presentation."

In sum, cognitive response theory accounts for a variety of source credibility persuasive effects reported in the literature. Thus, it can be argued that source credibility has an observable persuasive effect when other mediating factors (or cues) induce moderate levels of counterargumentation. However, when other factors engender an intense counterargumentation, source credibility appears to have no systematic effect.

At this point, it should be noted that cognitive response theory is not a sufficient explanation for all the persuasive effects of source credibility. While the theory identifies initial opinion as a driving force for persuasion, it ignores the determinants of initial opinion. Also, while the theory specifies how message recipients actively process persuasive cues in persuasive communication situations, it does not specify how different cues are interpreted and ultimately selected for processing.

These issues are addressed by attribution theory, and will be used to explain the interactive effect of message variation and source credibility in Chapter Seven.

SUMMARY AND CONCLUSION

In this chapter, an attempt was made to explore the concept of source credibility and its persuasive effect. However, to facilitate the discussion, the chapter was divided into five sections each of which addressed an important issue related to the concept of source credibility.

In Section One, the concept of source credibility was defined. In this context, several definitions were discussed. The common thread among all these definitions was that source credibility is inherent in the receiver's mind, ie. it is a perceptual concept. At the end of that section, we introduced our definition of source credibility, which was that it refers to the receiver's perception that the source of the communication message has sufficient knowledge that qualifies him to provide factual information concerning the subject (product, service, idea, etc) he communicates to the receiver, and which represents the right solutions to the receiver's (eg. consumer's) problems or needs. This factual information should be reliable to the extent that the receiver can act upon it safely.

The second section was devoted to the discussion of the basic dimensions of source credibility. It was concluded that source credibility is a complex and multidimensional concept. It consists of several dimensions (or components), such as trustworthiness, expertise, safety, qualification, and sincerity. Each of these components can individually or in combination influence the persuasiveness of the source.

After defining the concept of source credibility and its basic dimensions, we turned to assess the persuasive effect of source credibility. In this context, the discussion dealt with the issue from two aspects: as a main persuasive effect, and in its interaction with other variables.

With reference to source credibility as a main effect, a considerable amount of empirical research was reviewed and critically analysed. It was argued by the researcher that the findings of the literature were inconclusive, and that in fact the persuasive effect of source credibility was mediated by a number of other variables. These variables were grouped into five categories: (1) those related to the source per se, (2) those related to the message, (3) those related to the receiver, (4) those related to the media and finally, (5) those related to the situation. It was concluded that these factors seem to mediate the persuasive effect of source credibility either individually or in combination. It was also concluded that the relationship between source credibility and persuasion seems to be a complex one. Part of this complexity is due to the long versus short-term effects of attitude change produced by source credibility.

In Section Four, the discussion focussed on the sleeper effect in relation to source credibility. It was noted here that there was no conclusive evidence of the persuasiveness of high versus low credibility sources, or of how long this persuasiveness lasts. However, in terms of immediate attitude change, high credibility sources tended to be somewhat more effective than low credibility sources. But under certain conditions and with the passage of time, low credibility sources proved to be more influential. However, the issue of sleeper effect still constitutes an area of controversy concerning which there is no conclusive evidence.

Finally, in Section Five, an attempt was made to explain the persuasive effect of source credibility through cognitive response theory. According to this, a highly credible source is more persuasive than a low credibility source for those opposed to the message, while a low credibility source has greater persuasive power for those favouring the appeal. The persuasive power of a high credible source stems from its ability to inhibit

the activation of the counterarguments which might facilitate the receiver's rejection of the advocacy.

In conclusion, the review provided in this chapter has three major implications. First, a knowledge of the source credibility effects reviewed indicates the impact of this variable in the specific communication situations investigated; faced with these situations, the communication practitioner can decide whether or not it is useful to enhance the communicator's credibility. Second, the interpretation of source credibility persuasive effects in terms of cognitive response theory provides a basis for understanding the process by which credibility mediates social influence; this allows anticipation of the credibility effect in situations beyond those explicitly investigated in the literature. Third, by using source credibility effects to determine the efficacy of cognitive response theory, insights emerge about the persuasive mass communication process. This is of benefit in developing a better understanding of source credibility in the context of advertising.

We now turn our attention to examine the persuasive effect of message variation in the next chapter.

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CHAPTER SIX

THE CONCEPT OF MESSAGE VARIATION AND ITS EFFECTIVENESS IN ADVERTISING

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THE CONCEPT OF MESSAGE VARIATION AND ITS EFFECTIVENESS
IN ADVERTISING

INTRODUCTION

In the previous chapter, an attempt was made to explain the concept of source credibility. It was pointed out that the credibility of the source plays an important role in persuading an audience to accept the source's message. In addition, a comprehensive review of the factors mediating the persuasive effect of source credibility was also undertaken. In that review, message variation was shown as one of the important factors interacting with source credibility.

However, in this chapter, the discussion of message variation will be extended to deal with some important issues in relation to the concept. Specifically, this chapter addresses the following issues:-

- (1) The concept of message variation.
- (2) The relative effectiveness of nonvaried (or one-sided) versus varied (or two-sided) messages.
- (3) The effectiveness of varied-refutational versus nonvaried messages.
- (4) The effectiveness of message variation in advertising.
- (5) Theoretical explanations of the effectiveness of message variation.

Each of the above issues will be discussed separately as follows:

SECTION 1: THE CONCEPT OF MESSAGE VARIATION

The term 'message variation' is often used to refer to a two-sided message in which "information and persuasive arguments favourable and unfavourable to the advocated position are contained in the message." [1] However, Sawyer [2] attempted to extend the concept of message variation to include the refutational appeal "which expresses or acknowledges an opposing point of view and then proceeds to refute that claim." In this sense, a refutational appeal "would present both sides of a position, but argue against the position that is contrary to the source argument." [3] Therefore, the refutational appeal is a subset of the more general class of varied message which mentions but does not always refute the cited opposing arguments. Thus by its content, the concept of message variation can be broadened to include the presentation of the two sides (i.e. supportive and opposing arguments) and the refutation of the opposing argument.

Thus, it could be said that the concept of message variation involves two levels: first, variation by presenting the two sides of the advocated issue. Second, variation by presenting both sides of a position, then arguing against (or refuting) a position that is contrary to the source argument. Accordingly, two types of varied message can be distinguished: a varied without refutation (or a two-sided) message and a varied-refutational (which presents the two sides of an argument and proceeds to refute the opposing arguments) message.

In advertising, variation in the message is often used by presenting a two-sided message, in which, for example, the advertiser claims superiority for some product attributes and at the same time, recognises some attributes (which are relatively unimportant) in respect of which his brand may not be superior [4]. However, when this pattern of messages proceeds to refute the attributes concerning which the advertiser disclaims superiority or admits some of his brand's weaknesses, the term

'a refutational message' is used rather than 'a varied message.'

On the other hand, although "comparative advertising is a form of advertising that incorporates the two-sided approach," [5] the two forms (ie. the two-sided, and the comparative) must be clearly distinguished. For instance, the comparison made in the comparative advertising* message explicitly names or identifies competitor(s) of the advertised brand. But the comparison in the two-sided advertising message may either be implicit or explicit.

Also, it is worth mentioning that the term 'nonvaried message' has been used to describe the one-sided message, whereby the advertiser presents only supportive arguments without citing any opposing arguments or refuting them. In other words, a nonvaried message is one in which "the weaknesses in the communicator's position or the strengths of the opposing view are never mentioned." [6] So, a nonvaried (or one-sided) message is also called a supportive message.

To sum up, when the message variation is discussed within the context of persuasive communication, two forms of message variation can be distinguished: variation by presenting the two sides (ie. supportive and opposing arguments) of the advocated position, and variation by presenting the two sides of the advocated position and then proceeding to refute the opposing arguments. For the purpose of the present study, the term 'varied message' will be used to refer to the two-sided message

* Comparative advertising was discussed earlier in several sections of this thesis, especially in Chapter Four.

which does not refute the opposing arguments, and the term 'varied-refutational message' to refer to the two-sided message which refutes the opposing arguments contained in the message.

There is objective evidence in the related fields of public opinion and propaganda indicating that a varied message with/without refutation is more persuasive than a nonvaried (or one-sided) message. In the section that follows we shall explore the evidence relating to the relative effectiveness of the nonvaried (or one-sided) message versus the varied (or two-sided) message and the conditions under which each of them can be more persuasive.

SECTION 2: THE RELATIVE EFFECTIVENESS OF NONVARIED (OR ONE-SIDED)
VERSUS VARIED (OR TWO-SIDED) MESSAGES

In speculative discussion concerning persuasive communication effects, the question has often been raised as to whether a persuasive message is more effective when it concentrates exclusively on the arguments supporting the communicator's position (ie. one-sided message), or when it includes some discussion of the opposing arguments (ie. a varied message). In this section, an attempt to answer this question will be made.

Various communication practitioners have argued that in any persuasive attempt "no opposing arguments should be discussed because mentioning rival ideas invites comparison, hesitation and doubt," [7] and may run the risk of miscommunicating and generating increased scepticism toward the communicator's claim [8]. However, there is considerable evidence that this generalisation is not always true. The effectiveness of a varied (or two-sided) message has been confirmed in certain persuasive communication situations. The simplest psychological hypothesis underlying the preference of the varied message is that "a person early in the process of developing an opinion has a greater need to review the available alternatives than does a person who has been exposed to more information. The easiest way for a person to review the alternatives is for him to expose himself to a presentation which contains all of them, rather than exposing himself to a presentation containing only one." [9] This variation in the information presented allows an individual to be aware of the different views relevant to the advocated issue. This awareness enables him to realise the different dimensions of which the issue consists. In turn, this will enrich the individual's knowledge and facilitate comparison of both sides of the advocated issue.

In fact, most of the experimental research in this area has been concerned with demonstrating the effectiveness of the varied (ie. two-sided) against the nonvaried (ie. one-sided) message.

One of the early investigations which was specifically designed to test the relative effectiveness of one- versus two-sided messages was conducted by Hovland and his associates [10]. They argued that "The procedure of presenting only the arguments supporting the thesis is often employed on the grounds that when the preponderance of the arguments supports the point being made, presenting opposing arguments or misconceptions merely raises doubts in the minds of the audience. On the other hand, the procedure of presenting the arguments for 'both sides' may be supported on grounds of fairness - the right of the members of the audience to have access to all relevant materials in making up their minds."

To test the relative effectiveness of one- versus two-sided messages, they presented their subjects with two communication programmes discussing the length of the war between the US and Japan. The first programme (presenting a one-sided message), included only arguments indicating that the war was going to be a long one. The arguments were: "distance problems and other logistical difficulties in the Pacific; the resources and stock piles in the Japanese empire; the size and quality of the main bulk of the Japanese army that Americans had not yet met in battle; and the determination of the Japanese people." The second programme (presenting a two-sided message), presented all of the arguments mentioned in the first programme in exactly the same way, but in addition, it considered arguments showing that the war would be short. These arguments reflected some US advantages and Japanese weaknesses, (such as, US naval victories and superiority; the previous progress by the US despite a two-front war; the ability of the US to concentrate all its

forces on Japan after VE day; Japan's shipping losses; Japan's manufacturing inferiority, and the future damage to be expected from increased US air warfare activity).

The early results of the study indicated that there was no overall difference in the effectiveness of persuasive communications that presented only supporting arguments (the first programme) compared with those that also mentioned opposing arguments (the second programme).

However, further analysis by the researchers revealed that among members of the audience who were initially opposed to the point of view being advocated (ie. those who thought the war would be short), a two-sided presentation (which contains supporting, as well as opposing arguments) was superior in producing opinion change in the desired direction than was a one-sided presentation (which presents only arguments supporting the communicator's position).

Conversely, the one-sided presentation proved to be more effective only with those members of the audience who were already in agreement with the communicator's standpoint (ie. those who had earlier recorded a belief in a long war).

These results suggest that the relative effectiveness of a one-versus a two-sided message depended on how the members of the audience felt initially. Moreover, differences were found among subgroups divided on the basis of level of intelligence. Better educated members were more favourably affected by presentation of both sides while poorly educated members were more affected by the presentation containing only supporting arguments.

It was also suggested that an important incidental finding was that "omission of a relevant argument was more noticeable and detracted more from effectiveness in the presentation using

arguments on both sides than in the presentation in which only one side was discussed." [11]

Finally, Hovland and his associates suggested that "the relative effectiveness of a two-sided message can be attributed to the fact that a two-sided message is perceived to be unbiased, or because people are less strongly motivated to rehearse the counterarguments when the presentation is two-sided." [12]

In the experiment just reported, the major concern was to measure the immediate change in the subjects' opinions. However, it was not possible to compare the effects of one-sided and two-sided communications in inducing resistance to subsequent counterargument. This question was developed further by Lumsdaine and Janis [13]. In their study, two forms of a persuasive communication were presented on the length of time (ie. at least five years) it might take Russia to produce large numbers of atomic bombs. The two forms were presented in simulated radio programmes. Programme 1, the one-sided presentation, contained only the arguments that supported the issue. Programme 2, the two-sided presentation, contained the same arguments presented in the first programme, but also presented and discussed arguments opposing the issue. The total content of both programmes was designed to lead unambiguously to the conclusion that Russia would be unable to produce atomic bombs in quantity for at least five years. Except for the inclusion of the opposing arguments in the second programme, the two communications were identical.

Each of the two versions was presented to each of four main experimental groups. All groups were given an initial questionnaire as part of an independent "Opinion Survey" that was conducted several weeks before the experimental communications were presented. Two groups were then given the one-sided programme and the other two groups were given the two-sided programme. A week later, half of each group that had been

exposed to a communication heard a counterargument including information not heard previously by either group, supporting the contention that Russia had probably already developed the atomic bomb and would be producing large quantities within two years.

The findings of the study revealed that the one-sided message induced more opinion change in the direction of the counterargument, ie. that Russia had probably already developed the atomic bomb. On the other hand, in the group that had previously heard arguments on both sides, there was only a slight opinion change in the direction of the counterargument. Thus the group that heard both sides of the issue was more resistant to the counterargument.

The authors argued that the evidence supported the general conclusion that "Under conditions where the audience is subsequently exposed to counterpropaganda arguing in favour of the opposing position, a persuasive communication which advocates a definite position on a controversial issue is more effective in the long run if it presents and discusses the opposing arguments than support the communicator's conclusion." [14]

The researchers suggested that, when the receiver is subsequently exposed to the opposing arguments in the counterargument communication, he is less likely to be influenced by them, because he is not only familiar with them, but has been led to the positive conclusion in a context in which the negative arguments were in evidence [15]. In effect, "he has been given an advance basis for ignoring or discounting the opposing communication and, thus "inoculated," he will tend to retain the positive conclusion." [16]

The findings of the study emphasised the notion that previous knowledge about an issue may have important bearings on the persuasive effects of arguments, and that prior information

appears to affect the relative impact of subsequent communication on attitude change.

However, it should be noted that the rationale suggested by the researchers to explain the superiority of the two-sided communication, does not explicitly take account of the manner and extent to which the opposing arguments should be introduced into the communication. In their study, the researchers presented the opposing arguments in a way that appeared most likely to achieve clear-cut effects, and with no attempt at experimental variation of their content and arrangement within the communication. It is apparent, however, that a complete consideration of the factors determining the effectiveness of two-sided communications would have to deal systematically with the relative number of opposing arguments, the context in which they are introduced in the message, the extent to which they are explicitly refuted, and so on. Experimental analysis of the effects of such variables should be conducted to validate the findings of the study.

Another experiment was designed by Jarrett and Sheriffs [17] to examine the influence of three different forms of communication on opinion change: the first, a direct one-sided argument; the second, a two-sided debate; and finally, an impartial, objective presentation. The subjects were college students of both sexes, and the issue presented was the superiority of one sex over the other. In the one-sided communication, each sex heard support for its own superiority. In the other two communications, there were arguments favouring both sexes.

The results of the study indicated that in the one-sided context, each sex became more biased toward its own kind than it had been at the time of the pre-experiment questionnaire. For male subjects, the debate strengthened the feelings they expressed before the experiment, while the impartial treatment produced

more moderate attitudes. On the other hand, data derived from the female subjects were ambivalent. In the original questionnaire, so many of them said males were superior that the responses of females could not be meaningfully tabulated. Although the findings of the study did not provide strong evidence on the effectiveness of a two-sided versus a one-sided message, there was some indication that a two-sided message proved to be more effective compared with the other two forms of communication.

The findings of the study suggest that the message sidedness variable tends to interact with sex, and therefore, this interaction affects the persuasiveness of a two-sided versus a one-sided message. It follows, therefore, that unless all factors (including sex) not being measured are held constant, the results will be subject to a variety of interpretations.

Support for the effectiveness of the two-sided message was obtained by McGinnies [18]. In his study, Japanese university students were first asked to fill out a questionnaire measuring their attitude toward two relevant international issues: (1) American handling of the Cuban missile crisis and (2) visits by American submarines to Japanese ports. A week later, each of the subjects was exposed to one of four pro-American speeches. Those were: (1) a one-sided message - "Cuban missile crisis." The presentation here was based on the commentary of Ambassador Adlai Stevenson defending the United States action on Cuba to the UN, (2) a two-sided message - "Cuban missile crisis." This presentation in this case contained certain points raised by Nikita Khrushchev on the matter of missile bases in Cuba, (3) a one-sided message - "American submarine visits." This communication was composed from Japanese editorial comments favouring such visits, and (4) a two-sided message - "American submarine visits." This speech contained arguments against such visits by a "left-wing Japanese newspaper." After hearing one of

the four forms of communication, each subject was given the same questionnaire as he had been given a week earlier, and was asked to state his attitude toward the same issue.

The findings indicated that the two-sided communication was superior to the one-sided communication for individuals initially opposed to the position advocated in the communication. By contrast, for the subjects who initially were in agreement with the communicator's position, the one-sided message tended to be more effective. Thus the findings provide supportive evidence for the importance of the receiver's initial opinion as a major determinant of the effectiveness of one- versus two-sided messages.

This conclusion was consistent with that obtained by Hovland and his associates. However, our tentative explanation is as follows. Regardless of initial position, a persuasive one-sided communication presenting only supportive arguments may have led the members of the audience to perceive these arguments as biased and therefore led them to move further away from the direction advocated by the communicator. Also, the persuasive effect of a two-sided message may have been a result of other factors that influenced the persuasiveness of message, such as the message topic and its relevance to the receiver, the perceived credibility of the communicator, and so on. Such factors as these must be controlled, otherwise they will affect the measurement of the dependent variable (ie. attitude change) and the results obtained will be subject to doubt. However, it is worth mentioning that the importance of this study stems not only from its replication of the earlier studies, but also from the cross-cultural support it provided.

Paulson [19] conducted a study to examine the relative effects of a one-side speech advocating that the voting age be lowered,

compared with the effects of a two-sided presentation on the same subject. The two-sided presentation, however, mentioned only the opposing argument, with no elaboration whatsoever. The findings of the study revealed that there were no differences in effectiveness between the one-sided and two-sided presentations. Paulson reported that it was likely that the group (which consisted entirely of highly intelligent subjects) was not satisfied that the opposing point of view was fairly treated. It might also be suggested that just mentioning the opposing arguments without any elaboration is not a sufficient condition for the two-sided message to be more effective than the one-sided message, and this suggests that other factors that may influence the effectiveness of the two-sided message should be considered.

Another study conducted by Bettinghaus and Baseheart [20] was designed to examine the effectiveness of messages which present both supporting and opposing arguments (ie. two-sided messages) versus those that present only supporting arguments (ie. one-sided messages). An important feature of the study was the introduction of commitment as a mediating variable. The researchers found that subjects' commitment did produce an interaction with the sidedness variable. This demonstrates the importance of variables other than sidedness to induce persuasion. Their investigation failed, however, to provide supportive evidence that two-sided messages were more effective in changing the attitudes of more highly intelligent individuals.

Some research conducted by the Voice of America showed that the audience believed more of the information that they heard when the media programmes included statements admitting some US shortcomings, such as living conditions, administration of government and foreign policy [21]. It was suggested that this occurred because the programmes were perceived as more unbiased and objective.

With regard to this point, the effectiveness of the communication may be due to the belief that it is perceived to be unbiased, or because people are less strongly motivated to rehearse counter-arguments.

An experiment by Insko [22] designed to examine primacy and recency effects found that a one-sided communication was less effective than a previously or subsequently presented two-sided communication. Unfortunately, for the purpose of the present study, the separate effects of the one- and two-sided communications were not measured and it is therefore not possible to assert that the one-sided communication itself was ineffective.

Karlins and Abelson [23] attempted to explain the apparent increased effectiveness of the two-sided message. They suggested three possible reasons:-

- (1) "It implies that the communicator has objectivity."
- (2) "A two-side presentation appeals to the needs of the audience to be treated as mature, informed individuals."
- (3) "Giving both sides enables the communicator to anticipate counterarguments that the audience is rehearsing as they attend to his message. In the course of bringing up and demolishing counterarguments, he has a chance to state the case for the other side in a less convincing way than its proponents might state it."

Moreover, they also presented some devices which are sometimes used in assessing the relative effectiveness of one- versus

two-sided messages:-

- (1) "Adjusting the message to what is known about the audience. If there is reason to believe that the audience is unfriendly, suspicious of the communicator, or quite knowledgeable about some aspects of the issue discussed, a painstaking and conspicuous attempt at an unbiased treatment is indicated."
- (2) "Everybody knows that no one is perfect, and that being honest with the audience is a good way to gain their sympathy. Of course, the communicator's feeling that his position is the fundamentally right one should show through this part of the argument as well as other parts. Any number of minor shortcomings can be aired in such a way that they would appear to be negligible in the long run."
- (3) "If the audience already knows the weak points in your argument, it does no harm to mention them again."
- (4) "Conspicuously underlying your presentation is the assumption that the audience would be on your side if they only knew the truth. The other points of view should be presented with the attitude that "it would be natural for you to have this idea if you don't know all the facts, but when you know all the facts, you will be convinced.""

These conclusions are consistent with the conclusion that "when facts not already known are introduced to support a counter-argument, the communicator will be weakening his position. On the other hand, if conflicting facts are extremely salient for the audience, failure to mention them may be interpreted as a sign that the communicator has not carefully considered the other side." [24]

Hass and Linder [25] conducted a study in which they reported that a two-sided message led to a greater acceptance of a communication than a one-sided message when counterarguments were available. The researchers also found that a two-sided message which inadequately refutes the message recipients' counterarguments may actually strengthen the cognitive defences of the message recipient against the message and thus reduce persuasion.

On the other hand, there is some empirical evidence suggesting that presenting the two sides (ie. supportive and opposing arguments) of an issue increases the informational content of the message. In this respect, Holbrook [26] conducted a study to investigate the effects of the informational dimension of advertising content on the components of attitude structure. He concluded that: "(1) the factualness/evaluateness of a persuasive message exerts a positive effect on those beliefs considered most important, (2) these beliefs in turn determine affect, (3) these effects of communication on attitude are mediated by a set of intervening cognitive reactions, such as perceived message credibility."

The importance of Holbrook's study stems from its emphasis on the cognitive processes mediating the receiver's response to the persuasive message. Unfortunately, researchers generally have relied on "outcome" measures such as awareness, recall and attitudes in examining the effects of persuasive communication rather than considering the cognitive processes which might be generated by the message recipient and in turn shape his response to the advocated message [27].

Also, presenting the two sides of an issue may lead a receiver to perceive that the communicator has intentions other than achieving personal gains through his persuasive message. Abbate [28] suggested that presenting the audience with different perspectives leads the receiver to attribute a variety of motives

and intentions to the communicator. As a result, "the audience is poised for rebuttal and refutation long before the communication is even finished. If a statement is turned into a challenge by an audience, one tactic is to make the message a challenge. Spokespersons must give signs that listeners' questions about utility issues are welcomed."

In a study conducted by Jones and Brehm [29], the researchers extended the investigation into the reasons accounting for the differential effectiveness of one- and two-sided communications. Their experiment was designed to test the hypothesis that "even when the audience has no initial position on the issue, a one-sided communication will be less persuasive than a two-sided communication to the extent that the audience is aware there are two plausible sides to the issue."

Subjects (who were volunteers from an introductory psychology course at Duke University) received a booklet containing either a one-sided or a two-sided communication followed by several questions pertinent to the communication. They were informed that they would hear "the prosecution's summary to the jury in a bigamy trial." About half of the subjects were further informed that it was not an open-and-shut case. Cross-cutting this variation, about half of the subjects were exposed to a one-sided prosecution communication while the rest of the subjects were exposed to a two-sided communication. The experimental design used was thus a two-by-two factorial, consisting of two awareness conditions (aware-unaware) and two message style conditions (one-sided versus two-sided).

The findings of the study showed that contrary to previous empirical evidence, the one-sided communication was more effective than the two-sided communication. However, as was predicted by the researchers, the relative persuasiveness of the

one-sided communication compared with the two-sided communication was less in the Aware than in the Unaware condition.

The findings also showed that a one-sided communication is reduced in persuasiveness, relative to a two-sided communication, to the extent that the audience is aware that there are two plausible sides to the issue.

The researchers concluded that "the evidence for our hypothesis would have been somewhat stronger had the two-sided communication been more effective than the one-sided in the Aware conditions."
[30]

An additional important finding of the study was the unpredicted one that the perceived bias of the communication did not result in reduced persuasiveness of the one-sided communication among Aware subjects. The researchers suggested that "whether or not any given communication will be perceived as biased probably depends upon the context in which it is recognised as one-sided."
[31]

By contrast, Chu [32] concluded that "the differential responses to one- and two-sided communications were probably due to perceived bias in the communication ... It should be noted, however, that the one-sided communication tended to be perceived as relatively biased in all conditions and therefore, resulted in reduced acceptance of the communicator's position."*

* Chu's study will be discussed later in this chapter.

These contradictory findings regarding the perceived bias raise doubts about the significance of bias as a measure of the persuasiveness of a one- versus a two-sided message and suggest that bias does not seem to be a necessary condition for the reduced effectiveness of one-sided messages.

Finally, the experiment by Jones and Brehm has an important methodological strength regarding its check on the variables measured. In spite of the fact that there were no differences between the experimental conditions of the communication style (ie. a one- versus a two-sided message) in the checking of the communication style manipulation, the researchers still claimed that their manipulation of Awareness was apparently successful.

However, as in the majority of experiments on the persuasiveness of one- versus two-sided messages, the study by Jones and Brehm can be criticised on the grounds that Awareness is not the only factor which interacts with the sidedness of the message to induce persuasion. Many other factors may interact with message sidedness. Unless all these factors not being measured are held constant, the results will be unreliable.

In conclusion, therefore, the empirical research reviewed above yielded inconclusive findings pertaining to the effectiveness of one- versus two-sided messages. However, this research suggests that [33]:-

- (1) Two-sided messages seem to be preferable for audiences with higher educational levels, although the obtained differences are not supported in all studies.
- (2) Two-sided messages seem to be preferable when the audience initially disagrees with the communicator's position.

- (3) Two-sided messages appear to be more effective than one-sided messages when there is a possibility that the audience members will be subsequently exposed to messages containing counterarguments to the communicator's position.
- (4) One-sided messages appear to be more effective than two-sided messages when the audience members are already in agreement with the communicator's stand, provided that the audience members are not likely to be exposed to subsequent counterarguments.
- (5) Prior attitude and commitment may interact with sidedness, tending to cover up the potential effects of message sidedness.

Generally, the empirical research on the effectiveness of one-versus two-sided messages reviewed above can be criticised from four important standpoints:-

- (1) The majority of studies manipulated message sidedness by using two experimental conditions. In the first, the one-sided message condition, supporting arguments for the position advocated by the communicator were presented without mentioning any drawbacks (or opposing arguments) to the position advocated or recognising any opposing claims. In the second experimental condition, using a two-sided message, both sides of a position advocated were presented. Specifically, in the two-sided condition, a communication contained supporting as well as opposing arguments to the advocated position. However, the researchers did not go beyond presenting the two sides of a position (in the two-sided message) in order to refute the opposing arguments. If the refutation dimension had been

considered, the effect of the two-sided message might have differed from that obtained by simply presenting the two sides. Unfortunately, the refutation dimension was totally ignored in the researchers' manipulation of the message sidedness.

- (2) The effective use of a two-sided message requires that the recipients' initial opinion toward the position advocated by the communication should actually be negative. Therefore, to determine whether the two-sided manipulations are successful, subjects must be asked to indicate their impression of (or initial attitude to) the issue advocated. Unless this pre-test is carried out, the results of the studies will be questionable.

- (3) The researchers generally have relied on "outcome" measures such as awareness, recall, intention, and attitude in examining the effectiveness of one- versus two-sided messages, rather than considering the cognitive processes which might shape and determine those reactions. An exception to this criticism is a study by Calder and Sternthal [34] in which they suggested that cognitive responses to the product (or the message topic) itself rather than to the persuasive message may have been elicited after the messages had been seen under normal viewing conditions. Thus, many of the cognitions generated by the recipients were not closely related to the stimulus message (ie. one-versus two-sided) and the cognitive response did not parallel evaluative reactions to the persuasive message. As a result, problems of interpretation are associated with the findings of the studies as these findings may have been a function of the message chosen

(variation in headlines, themes, format, topic, etc) rather than due strictly to differences in message sidedness (ie. one- versus two-sided).

- (4) In most of the studies reviewed above, many other factors in addition to message sidedness, such as those related to the receiver, communicator, or the situation itself, were not measured or even held constant. As a result, the internal validity of the findings obtained by those studies is questionable.

However, there is considerable empirical evidence suggesting that using refutation within the context of the two-sided message has a major effect in inducing persuasion and resistance to subsequent counterpersuasive communication. This issue is therefore explored in more detail in the next section.

SECTION 3: THE EFFECTIVENESS OF VARIED-REFUTATIONAL VERSUS NONVARIED MESSAGES

It was indicated earlier that refutation in the context of persuasive communication is based on presenting both supportive and opposing arguments, and arguing against the position that is contrary to the source's position. The effectiveness of refutation in persuasive communication was confirmed by Aristotle a long time ago when he stated:-

"Refutation enthymemes, however, are more in refute than the confirmative, by reason of the refutative enthymeme being a setting contraries briefly together; and because things when put in contrast are more palpable to the auditor. Of all forms of reasoning, however, as well confirmative as refutative, those produce the greatest effect." [35]

In another translated version of his book, "Rhetoric," Aristotle had this to say about a varied-refutational message:-

"'Refutation' of the opponent falls under the head of arguments; and since a 'comparison' of both sides is an enlargement of your own case, it too appertains to this head. The speaker who so augments his case does so in order to prove something." [36]

He continued:-

"You are to break down his arguments, partly by objection, partly by counter-syllogism. In deliberative speaking, as well as in court, if you are the first speaker you should first present your own arguments by direct refutation or by pulling them to pieces in advance. If however, the opposition has many

proofs of its case, then begin with these, as Callistratus did in the Messenian assembly. First of all he demolished the arguments they were going to use against him, and then he presented his own ... You should therefore make room in the minds of the audience for the argument you are going to offer; and this will be done if you demolish the one that has pleased them."

[37]

As the above statements suggest, Aristotle argued strongly for the varied message, especially the refutational one, as an effective way for the communicator to get through to the minds of his audience. This approach may have significant implications for advertising communication where an increasingly competitive communication (eg. comparative advertising) is something that must be considered.

The effect of refutation in the persuasive communication was investigated in early research by Thistlethwaite and Kamenetzky [38]. In their study, they talked of refutation of opposing arguments rather than simple mention of opposing arguments. They tried to answer the question: "Is the communication more effective when the speaker avoids explicit denial or refutation of the arguments of opposed members of the audience, or is it better to present direct refutations of opposed arguments?" In other words, the question raised by the researchers was that of determining how far one should go in acknowledging and denying the arguments opposing the position advocated by the communicator. Is it better to present only materials supporting the position being advocated in the message, or is it better to acknowledge and discuss the opposing arguments?

Therefore, the study was aimed at investigating the effects of additional discussion of opposed arguments by comparing two types of presentation: (a) in the first, the counterarguments of

opposed members of the audience were acknowledged, but no attempt was made to deny or refute these arguments; (b) in the second, opposed arguments were acknowledged and then followed by a refutation of opposing arguments. The sequence of presentation consisted of submitting the main opposing arguments with elaborate supporting materials, followed by a rebuttal of these arguments.

To carry out their study, the researchers used two independent samples. One consisted of recruits in basic training at a military base; the second consisted of high school students. The subjects were exposed to a communication message discussing the question of whether the American Government had acted wisely in committing US military forces to fighting a limited war in Korea. The message was presented to the subjects in four experimental programmes. The first programme (refutation with denial of the counterarguments) acknowledged the counterarguments, but each acknowledgment of a counterargument was followed by a statement of facts supporting the counterargument. This in turn was followed by one or more statements explicitly denying the validity of the opposed argument. The second programme (refutation without denying the counterarguments) was identical to the first, except that all discussions of facts supporting the counterargument were omitted. The third programme (no refutation with denial of the counterarguments) was the same as the first, except that non-refutative statements were substituted for the refutations. The non-refutative statements were formulated so that there was no denial of the validity of the opposed point of view expressed. Rather, these statements attempted to convey the idea that, the counterargument notwithstanding, there were still other facts to consider. Finally, the fourth programme (no refutation without denial of the counterarguments) was identical with the third, except that all statements supporting the counterargument were deleted.

The results of the study indicated that "attitude change tends to be greater for members of the audience who more clearly comprehend the communicator's intended conclusion or who show fewer or less intense discounting reactions to the communication."

The researchers concluded that the programmes including a mention and refutation of opposing arguments had the effect of actually strengthening opposing attitudes. They suggested that listeners apparently discounted the programmes with refutation as "phony" attempts to seem impartial.

Finally, the researchers suggested that for a two-sided message to be most effective, it must not go too far in elaborating the counterarguments. If too much elaboration of counterarguments takes place the overall effectiveness of the appeal is weakened. However, the researchers formulated what they called "a tentative statement" of conditions under which elaboration of audience counterarguments will or will not be effective. This stated:-

"The introduction of facts in support of statements acknowledging the counterarguments of an opposed audience will weaken the appeal and reduce its effectiveness in changing attitudes when the facts introduced are not already familiar to the audience. The inclusion of 'facts on the other side' with which members of the audience are not already familiar will tend to strengthen their position, thereby reducing the effectiveness of the persuasive appeal. On the other hand, if the opposed facts are extremely salient for the audience, failure to mention them may be regarded as a sign that the communicator is biased and has neglected to consider the facts on the other side. Failure to acknowledge such facts will tend to evoke discounting tendencies, thereby reducing the effectiveness of the appeal."

However, the findings of the study showed some inconsistency regarding the effect of refutation among the subjects in each sample. For instance, the results indicated that among high school subjects, refutation of audience counterarguments produced more frequent discounting reactions and better comprehension of the communicator's conclusion. It is possible, therefore, that these two effects cancelled each other so that for the high school subjects, the refutation and no refutation treatments were equally effective in changing attitudes. However, the same pattern or relationship was not observed among the Air Force subjects. In the military setting, refutation did not produce a significantly greater degree of comprehension than no refutation. In addition, refutation did not elicit greater expression of discounting tendencies. This inconsistent finding can be interpreted on the basis of one possibility which suggests that additional cues were present in the military setting which attenuated the differential effects of refutation upon audience comprehension. Some of the recruits may have inferred that the Air Force agency which sponsored the presentation of the communication would endorse the conclusion that US policy in Korea was sound.

On the other hand, the identification of the communicator for the high school subjects was such that it was not possible for those subjects to predict the position the communicator would take on the issue. Thus, it might be speculated that among recruits, refutative communications actually tended to elicit greater discounting on the covert level. Therefore, differential discounting may not have been evidenced because of a perceived fear or uncertainty of the consequences.

Given this inconsistency of the effect of refutation, it can be concluded that the results obtained by the researchers are inconclusive. Even their 'tentative statement' does not provide an adequate basis for determining the conditions under which

refutation of the opposing arguments within a two-sided communication will or will not be effective. However, it is fair to say that the researchers' statement has significant implications for future research on the effectiveness of refutation in persuasive communication.

Support for the importance of refutation within the context of the two-sided message comes from Percy and Rossiter [39] who pointed out that refutation is a necessary strategy in situations where "a single negative cognitive salience is juxtaposed with one or more equally strong positive saliences." They added, "when this occurs, it is necessary to refute the negative salience in order to gain acceptance of the positive saliences as persuasible. If the negative salience is ignored, it will tend to override the positive saliences presented in the persuasive message at the evaluative stage of the buyer-response hierarchy." [40] However, the authors did not explore the extent to which their conclusion is applied under the condition of the receiver's familiarity/unfamiliarity with the negative saliences.

By contrast, Janis and Feirabend [41] have suggested that the mere presentation of opposition arguments, even to refute them, could put the receiver in a situation of conflict, especially if the opposition arguments are dealt with before the arguments supportive of the desired position. They argued that mentioning the opposition arguments might cause the receiver to switch sides, giving rise to possible problems resulting from defensive avoidance when the supportive arguments are presented later.

In a series of experiments, McGuire and his colleagues [42] demonstrated that "both refutational and supportive defences were superior to a no defence condition in making cultural truisms resistant to attack. Further, the refutational defence conferred greater resistance to persuasion than did the supportive defence." Because the findings of these experiments will be

discussed in more detail later in this chapter,* a review of these findings will not be considered here.

In 1967, Chu [43] conducted an experiment in which he attempted to test the persuasive effects of a varied-refutational (or two-sided with refutation of the opposing arguments) message versus a nonvaried (or one-sided) message in a nonwestern cultural setting (a boys' high school in Taiwan). The major purpose of the experiment was to test the suggestion by Hovland and his associates [44] that a two-sided message is perceived to be unbiased, whereas a one-sided message is perceived to be biased.

Considering this suggestion, Chu developed three basic hypotheses: the first asserted that "subjects who perceive bias in the communication are less likely to be persuaded than subjects who do not perceive bias." The second hypothesis asserted that "a one-sided argument is more likely to arouse detection of omission 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." The third hypothesis asserted that "a two-sided presentation will be more effective when people are familiar with an issue, but a one-sided presentation will be more effective when people are not familiar with an issue."

To carry out his experiment, Chu exposed his subjects (who were sophomore students in a boys' high school in Taiwan) to a communication discussing the topic, "the advisability of creating

* The effects of refutation in inducing resistance to persuasion (ie. counterargumentation) will be discussed in the context of the empirical research into "Inoculation Theory."

an international free trade zone in Kaohsiung," a harbour in Southern Taiwan. The topic was set before the subjects through two forms of presentation: one-sided and two-sided with refutation (or varied-refutational presentation). In the one-sided presentation, the topic discussed only the arguments that were in favour of the free trade zone. On the other hand, the two-sided with refutation presentation first discussed the arguments against the free trade zone, then refuted them, and finally presented the favourable arguments, which were identical to those used in the one-sided presentation. The one-sided message lasted 8 minutes, the two-sided with refutation, 11 minutes.

The results of the study revealed that for subjects initially favourable to the advocated position, there were no differences in postexperimental attitude as a function of either prior familiarity with pro and con arguments or one- versus two-sided with-refutation communication. However, among subjects who were initially unfavourable, the two-sided with refutation (ie. varied-refutational) message produced more agreement with the advocated position than the one-sided (ie. nonvaried) message.

Although this finding emphasises the importance of the audience's initial position as a major determining factor of the effectiveness of one- versus two-sided with refutation messages, Chu concluded that the differential responses to one- versus two-sided with refutation messages were probably due to perceived bias in the communications and not to rehearsal of counterarguments. He stated, "It should be noted, however, that the one-sided communication tended to be perceived as relatively biased in all conditions and yet resulted in reduced acceptance of the communicator's position only for initially unfavourable subjects who had been exposed to pro and con arguments. At best, then, perceived bias accounts for only part of the obtained effects."

However, perceived bias is not a necessary condition for the effectiveness of one- versus two-sided messages* since it represents only one of several ways in which the receiver may arrive at the impression that he is under pressure to adopt or reject a particular position (as in the case of the one-sided message). Therefore, no clear predication could be made about whether or not the one-sided communication would be perceived as more biased than the two-sided.

The evidence from Chu's experiment also suggests that the audience must indeed know relevant arguments on the issue, presumably including at least some opposed to the position advocated by the communication. Only subjects who had previously been exposed to relevant pro and con arguments showed less agreement with the advocated positions when they heard a one-sided communication than when they heard a two-sided one.

In effect, then, Chu's experiment supported the major reasoning of Hovland and his associates that the effectiveness of a two-sided communication may be due to the fact that it is perceived to be unbiased, or because people are less strongly motivated to rehearse its counterarguments. However, the differential effects are more probably due to the detection of omissions than to the rehearsal of counterarguments, because, as Chu himself admitted "the hypothesis of rehearsal of counterarguments was not directly tested in his experiment." [45] 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.

* Support for this conclusion was provided by a study conducted by Jones and Brehm reported earlier in this chapter.

However, it should be noted that Chu, in his operationalisation of the varied-refutational message, did not consider the contextual difference between the two-sided (or varied) message which presents opposing as well as supportive arguments to the position advocated by the communication, and the two-sided with refutation (or the varied-refutational) message. Therefore, his findings are valid with respect to the varied-refutational (or two-sided with refutation) messages rather than the varied (or two-sided without refutation) messages. Therefore, it is not easy to attribute the obtained results either to the presentation of the opposing arguments or to the refutation of these opposing arguments.

Also, refutation was found to be related to the perception of source credibility. Gillig and Greenwald [46] dealt with the question of refutational appeals and source credibility. They examined the effects of refutation on persuasion. Refutation was introduced into the message in two conditions: the counter-argumentation and the discounting conditions. The discounting condition attributed the message to a low credibility source. In the counterarguing condition, the subjects received a counterarguing defence prior to the communication. The authors expected to find that counterarguments were more effective, over time, in resisting persuasion attempts than in discounting. They found that messages relying on refutational appeals proved more effective over a period of time in a low source credibility condition. This suggests that for advertisers who could not afford the costs of hiring the high credibility communicators to be their spokespersons, using varied-refutational messages may be more feasible.

Thus, the findings of the study suggest that refutation tends to interact with the credibility of the source and in turn increase its persuasive effect.

Generally speaking, it could be concluded that the findings of the studies reviewed above indicated that refuting the opposing arguments is effective when the members of the audience are likely to be exposed to subsequent counterargument. In this respect, refutation has an immunity effect.* The mechanism at work here seems to suggest that, if a receiver is made aware that a strongly held belief is open to argument, the receiver will seek to bolster cognitive defences against any subsequent attempt to attack that belief [47].

In this regard, Wyer [48] speculated that a simple mention of arguments against a proposition may be sufficient to make a receiver aware of the vulnerability of held beliefs. This causes him to recognise cognitively all relevant beliefs, regardless of which ones are actually refuted in the original message. Also, the more vulnerable the receiver feels, the more likely he will be to take the necessary cognitive steps required to counterargue effectively when held beliefs are attacked through subsequent persuasive communication, and hence the more resistant to such persuasion he may become.

These empirical findings have demonstrated the relative effectiveness of a varied message (ie. a two-sided with/without refutation) under certain conditions (ie. when the members of audience are highly educated, initially oppose the message, and when they are likely to be exposed to subsequent counterarguments). They have also received considerable support in the field of advertising communication. In the section that follows we shall assess the empirical evidence derived from exploring the effects of message variation in an advertising context.

* The immunity effect of refutational appeals will be discussed later in this chapter.

SECTION 4: ASSESSING THE EFFECTIVENESS OF MESSAGE VARIATION IN ADVERTISING

For many years advertising practitioners have attempted to influence public attitudes through mass communication media with "one-sided" arguments. Traditionally, they have presented only supportive points in favour of the viewpoint advocated by the communication and have not mentioned any potential drawbacks or refuted opposing claims in the message.

However, "in the field of personal selling, on the other hand, the "two-sided" argument is often considered to be an effective sales approach." [49] Using the two-sided approach, the salesman presents both the positive and negative features of his product. With every negative argument, the spokesman follows with a counterargument or offsetting positive argument.

Although it is recognised by advertisers that the two-sided approach is often effective in the field of personal selling, "the consensus is that it is not sound to admit weak points when one is not in a position to defend them." [50] Because this position is widely accepted, the two-sided approach is seldom used in advertising. However, in recent years, objective evidence has been obtained in relation to advertising which indicates that two-sided (especially those without refutation) messages may increase the believability of some product claims and the credibility of the source [51].

On the other hand, refutational advertising appeals have been found effective in inducing resistance to persuasion in general [52], and in changing attitudes of users of competing products [53].

In the following pages, an attempt will be made to review the available literature supporting the effectiveness of message

variation in advertising. However, we shall deal separately with each of the two kinds of message variation: the varied (ie. two-sided without refutation) message and the varied-refutational (ie. two-sided with refutation) message.

(1) EFFECTIVENESS OF THE VARIED MESSAGE

It was indicated earlier in this chapter that the varied message can be very effective under certain conditions. Although this conclusion was based on studies in the fields of public opinion and propaganda, there is considerable evidence that the same conclusion holds true in an advertising context.

An early study conducted by Faison [54] attempted to determine the desirability of presenting two-sided advertising messages in mass communication media. Specifically, it explored the effects of two-sided commercials for different types of products, and for groups differing in age, intelligence, sex, and prior attitude. Both immediate and delayed effects of the communications were measured.

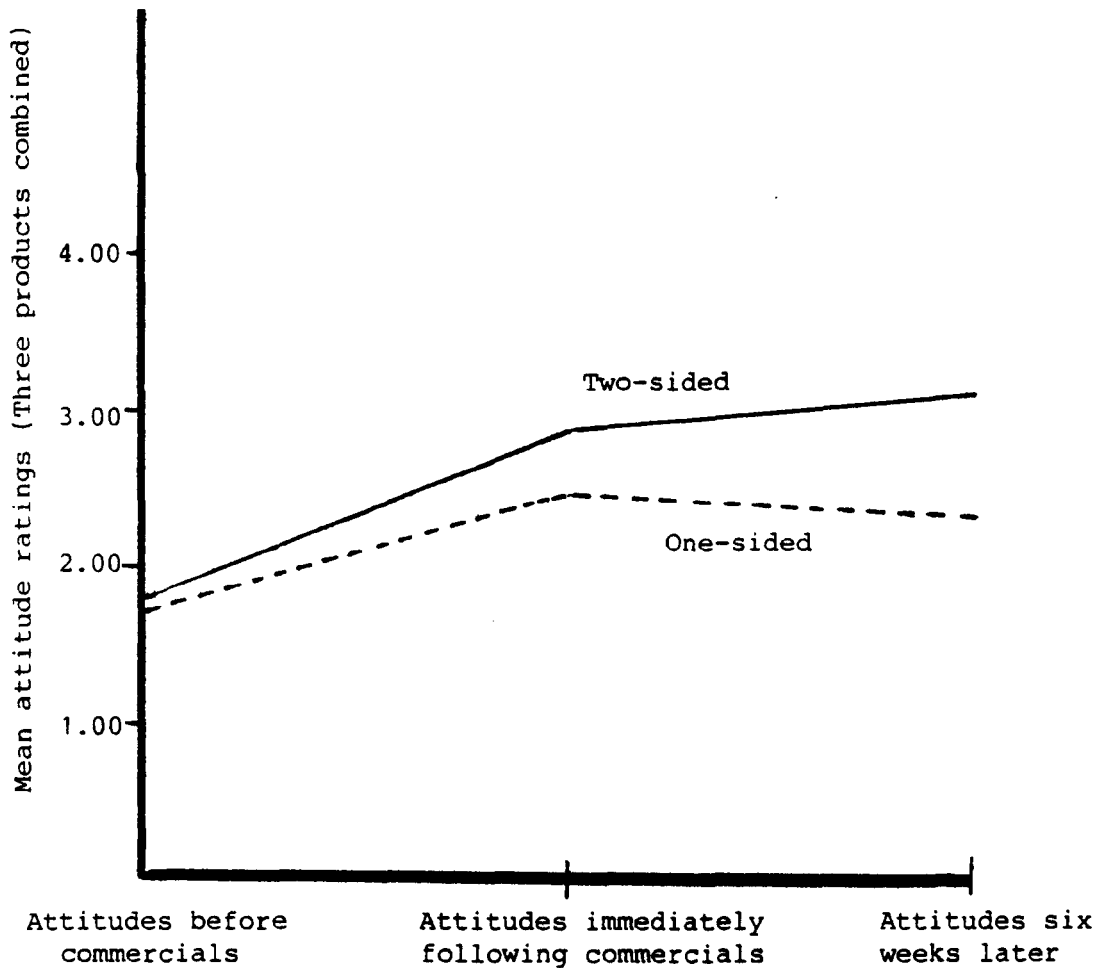
In the study, 496 vocational school, high school, and college subjects were exposed to three one-minute radio commercials about an automobile, a gas range, and a floor wax. Half the subjects were exposed to one-sided commercials presenting only the favourable attributes of the product (conventional commercials). The other half were exposed to comparable two-sided commercials, which presented attributes in relation to its competitors. The major conclusions which emerged from the study were:-

- (1) In terms of overall effectiveness, two-sided advertising communication seems to be an effective means of influencing attitudes. In the study, "the two-sided arguments for all three products were

significantly more effective in influencing attitudes than comparable one-sided mass communication."

- (2) The effectiveness of the two-sided advertising messages was dependent upon the intelligence level of the audience. More intelligent subjects were more influenced by two-sided arguments; less intelligent subjects were more influenced by one-sided presentation.
- (3) For audience members who were initially opposed to the point of view presented in the commercials (those who used competitive products), the two-sided arguments were superior. For those with a prior positive attitude (those who used the recommended products), the one-sided commercials tended to be superior.
- (4) Products of greater psychological value benefit more from two-sided commercials than products that are of lesser value (ie. the more a consumer has to lose if he makes a mistake, the greater the appeal of two-sided arguments).
- (5) Two-sided commercials are more resistant to counter-claims. When the attitudes of the subjects were measured six weeks after the commercials were presented, it was found that those who were exposed to the two-sided commercials maintained the attitude change that took place following the commercials to a greater degree than those who were exposed to the one-sided commercials. Thus, the two-sided commercials were significantly more effective than the one-sided commercials in inducing resistance to counterclaims after a lapse of six weeks. Figure (6-1) illustrates this conclusion.

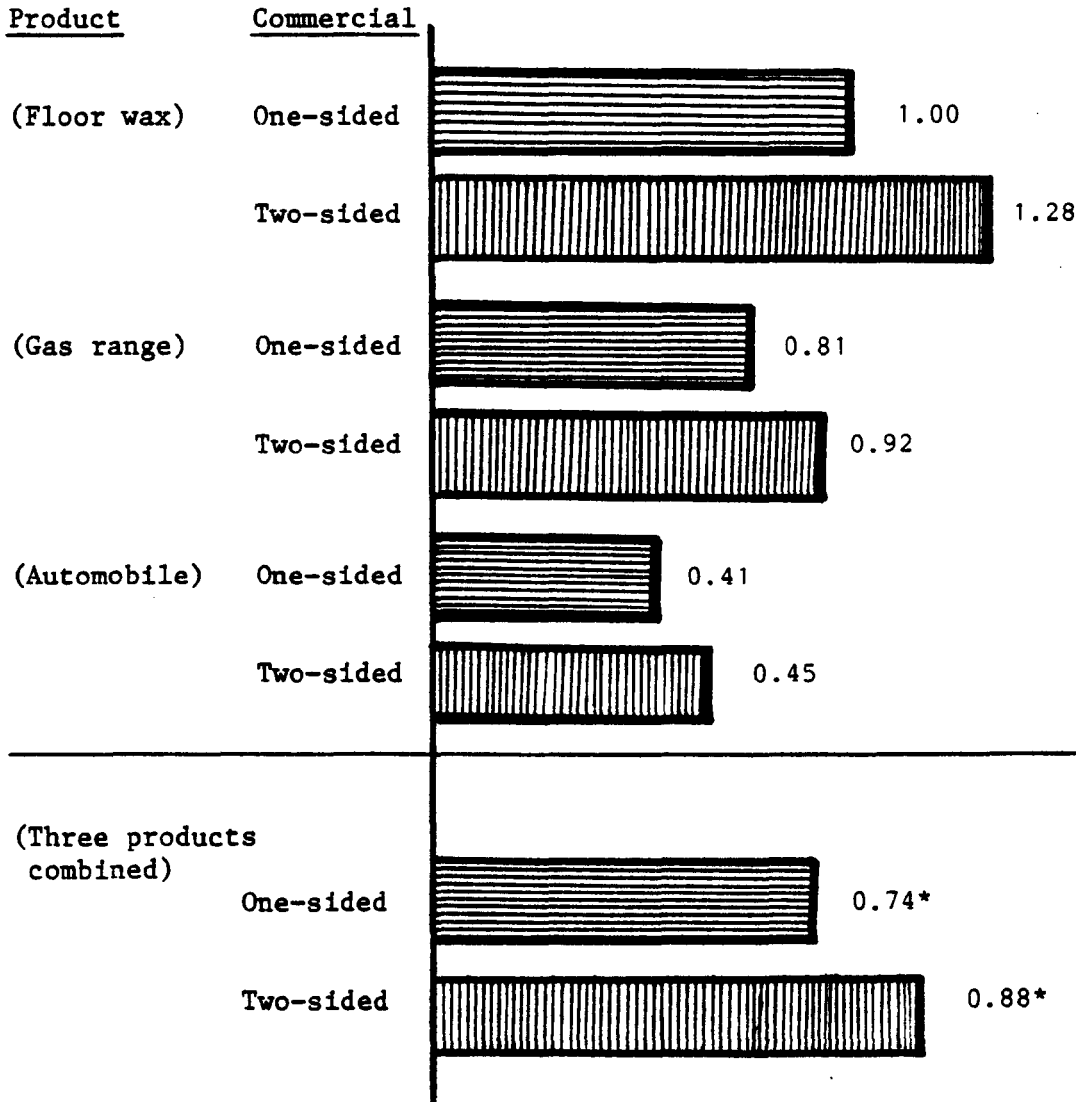
Figure (6-1): Comparison of delayed effects of one-sided and two-sided commercials



Source: Faison, E.W.J, Advertising: A Behavioural Approach for Managers, John Wiley and Sons, New York, 1980, p239.

Also, the effects of one-sided versus two-sided commercials for three products have been summarised in the following figure:-

Figure (6-2): Effect of one-sided versus two-sided commercials for three classes of products



* Combined differences between one-sided and two-sided commercials significant at 0.01 level.

Source: Faison, E W J, Advertising: A Behavioural Approach for Managers, John Wiley and Sons, New York, 1980, p238.

Finally, Faison suggested that "two-sided advertising deserves greater consideration from advertisers, particularly for products of high value or products designed for more intelligent users. Its greater effectiveness with users of competitive products is also important since this is the group of particular importance for most advertised products. Two-sided advertisements have two advantages: they give credibility to the message and they prepare consumers to resist counterargument." [55]

The importance of Faison's study does not stem only from the evidence on the conditions favouring either one- or two-sided messages, but also from the fact that it was the first attempt to apply hypotheses developed from related fields of public opinion and propaganda to an advertising context.

However, the study can be criticised for the following aspects:-

- (1) In the study, no carefully controlled "counter-propaganda" was presented at a later time. Rather, it was assumed that all persons would be continuously exposed to commercial messages of a number of competitors for the three products used in the experiment. Consequently, the explanation of the superiority of the two-sided commercials on the delayed measures is made on the basis of increased resistance to counterpropaganda. In this respect, the finding regarding the effectiveness of a two-sided message in inducing resistance to counterpropaganda could not be claimed as reliable.
- (2) For the purpose of his study, Faison selected the medium of radio as a test vehicle. Thus, results from his study may have limited general applicability to the other media. For example, print may be more or less effective for a two-sided message because a printed

message allows the recipients greater opportunity to process the message stimulus and to dwell on the credibility of the advertiser who disclaims superiority in respect of some attribute. For commercial messages presented in a very short time period (as is the case with radio), the information-processing rate is not under the receivers' control. Therefore, limitations of his ability to process the message would make it difficult for him to go through the processing procedure that would result in a positive or negative evaluation of the two-sided versus the one-sided message. It is worth pointing out that the ability of radio commercials to affect higher order responses such as attitudes and intentions is still a controversial issue. However, Ray [56] has suggested that initial processing can affect attitude structures over the long term through message repetition. Also, Krugman's [57] low involvement theory of television advertising effect suggests that individual commercial messages will have little or no effect on higher order level of response. Krugman argues that only through message repetition will gradual shifts in cognitive structure take place.

The low level of cognitive response activity assumed in Faison's study suggests that message recipients did not engage in detailed levels of cognitive processing for the commercial messages presented in the experiment. This lack of in-depth processing of the messages casts a veil of doubt over the reliability of the findings, and in turn limits their general application to other media.

- (3) Although the researcher administered the immediate post-test in the experimental setting (ie. classroom), he administered the follow-up test four to six weeks

later by sending a mailed questionnaire containing the same rating form previously used. In fact, the change of the conditions under which the experimental measurement took place may account for the high rate of experimental mortality (in the post-test, the number of subjects was 540 subjects, dropping to 219 subjects in the follow-up test). Also the lapse of time between the two tests might have had a maturation effect through which the subjects' responses might have been affected. All these effects may influence the statistical analysis and comparisons of the study.

- (4) Although the commercial versions presented in the study were written in collaboration with professional copywriters, the manipulation of the one- versus two-sided versions was not checked. Therefore, the subjects may not have understood or perceived each version in the way that the researcher intended.

The conclusions drawn from Faison's study were responsible for the efforts of several researchers to examine more carefully the relative effectiveness of two-sided messages in the context of advertising.

Within this area of research, Settle and Golden [58] found that varied message claims resulted in higher confidence ratings than nonvaried claims. The researchers concluded that, in advertising, disclaiming superiority on at least one unimportant product attribute is a way of enhancing the perceived credibility of the source.*

* This conclusion will be dealt with in more detail in our discussion of the interaction between source credibility and message variation in Chapter Seven.

The researchers illustrated that "it would be better for the advertiser to disclaim at least one feature of minor importance than to exclude it from the message entirely; one disclaimed product feature would provide enough variation to improve significantly confidence and total expectancy." [59]

Smith and Hunt [60] tried to examine the hypothesis that varied product claims produce greater truthfulness scores than nonvaried claims for two types of products. They found that perceived truthfulness scores were significantly higher for the varied claim advertisements. The varied claims also generated more dispositional (or favourable) attributions than the nonvaried claims.* They concluded that advertisers who are early adopters of the varied product-claim strategy are likely to benefit most from their use. They also suggested:-

"... It would appear that significant increases in source credibility could result from providing consumers with a more objective description of a product's characteristics. However, should varied product claims become common advertising strategy, it is possible that consumers would come to include this behaviour within their role expectations of advertisers." [61]

In suggesting a possible rationale to help differentiate the conditions under which the varied message might be preferred to the nonvaried one in promotional strategy terms, Kernan and his associates [62] tried to relate the level of variation in the

* The effect of message variation on the perceived source credibility will be dealt with in more detail in Chapter Seven.

message to the adoption process and adopter categories. They suggested that "if a product is widely accepted in the market, to the extent that it might be regarded as a legitimised part of the cultural inventory of most consumers, and assuming that a firm has no reason to expect competitors to make direct attacks upon certain of its features, we find that the wisest course might be to follow a one-sided approach in promotional-message structures. However, if the product is in the innovation stage, a two-sided approach could be more appropriate." They added, "the compatibility and complexity suggests that with many innovations, these factors might create a high degree of "opposition" to acceptance. Furthermore, certain characteristics of the innovator and early-adopted categories suggest that their educational level might be higher than that of later adopted groups, thus making them more amenable to the two-sided presentation."

The use of a two-sided message structure in the context of a comparative message has been examined by a number of researchers. For instance, Mazis [63] conducted a study in which "some positive effects for the two-sided comparative appeal were indicated by the cognitive response measures as more counter-arguments were generated by one-sided messages for the leading brand than by two-sided arguments for the less popular brand. However, this positive effect was not reflected in the outcome measures as the two-sided message was ineffective in terms of its impact on attitudes and purchase intentions." However, because no other measures of message acceptance were used, the relationship of the cognitive response measures to attitude and purchase intention could not be determined. Thus, problems of interpretation are associated with the findings obtained by Mazis. Overall, Mazis' results concerning the value of using one-sided or two-sided comparative and noncomparative messages are difficult to interpret. Although some significant copy type/message-sidedness interactions were discovered, no

consistent patterns could be detected. It is clear from Mazis' research, however, that, disregarding the copy type dimension, the two-sided messages were not more effective than one-sided messages. Several factors rather than message sidedness might moderate the effectiveness of comparative messages, however, including predispositions toward the brand named in the comparison. Moreover, the moderating effects of these factors may change as a function of message repetition, as was shown by Sawyer [64].

However, in another study, Etgar and Goodwin [65] tried to examine the effectiveness of one- versus two-sided comparative message appeals relating to new brand introductions. Using the basic concepts of inoculation theory,^{*} the researchers conducted a study in which they aimed at determining the relative effectiveness of one- versus two-sided messages on consumer attitudes to new products. The sample consisted of 120 business administration students from a School of Business in the northwestern US. The subjects were exposed to one of several experimental variations of a print advertisement. They were then asked to evaluate the brand and the advertisement.

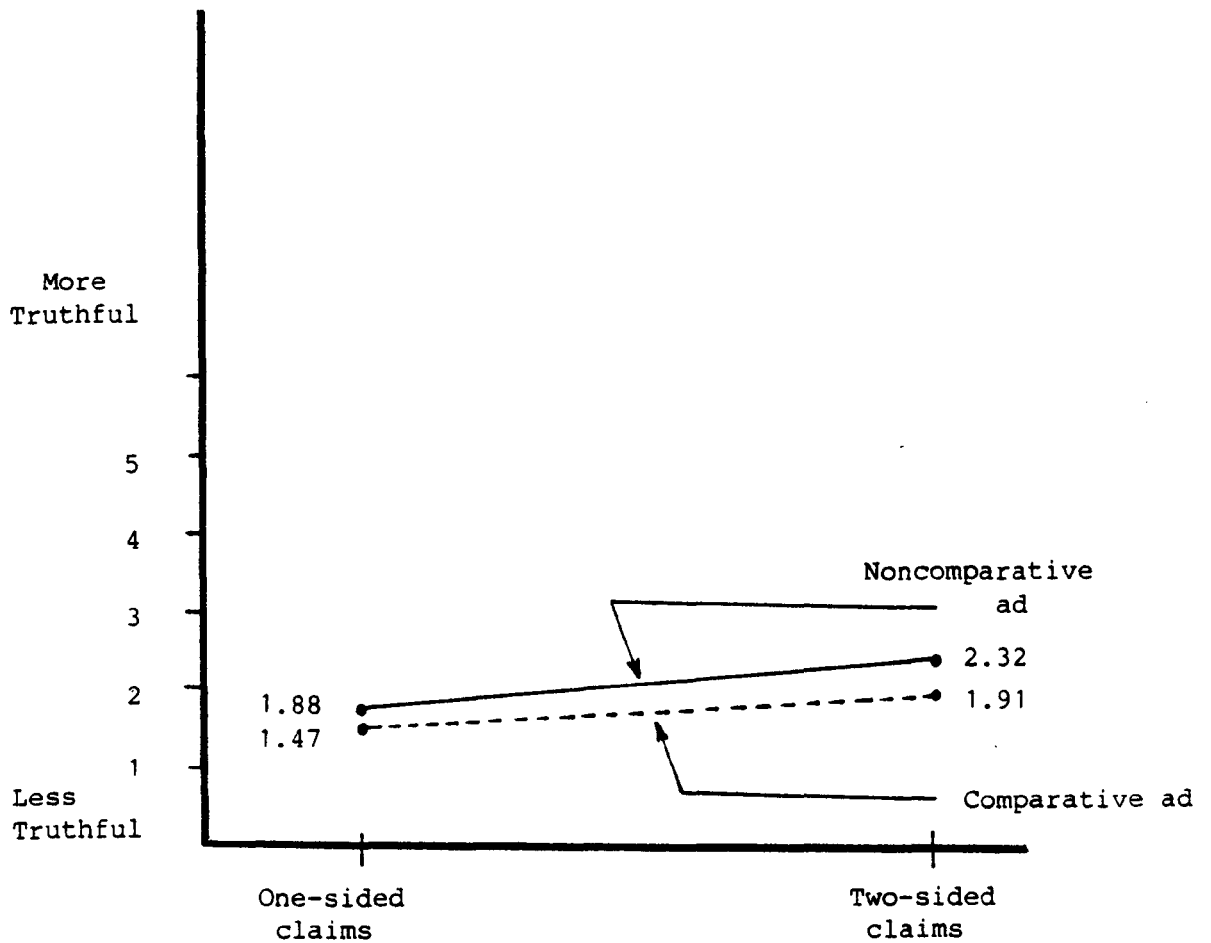
Using a multivariate analysis of variance framework to analyse the data, a two-sided comparative advertisement was found to be superior in respect of product-related measures (knowledge enhancement, quality perception, purchase intention) but inferior in respect of advertisement-related perceptual measures (believability, attractiveness, offensiveness, likeability). The results indicated that "the two-sided appeal produced more favourable attitudes to the new brand introduction. Product

* Inoculation theory will be discussed in more detail later in the next section.

category and amount of attribute information did not differentially alter attitudes to new brands." This conclusion is supported by Kernan's study, which indicated the effectiveness of a two-sided message in the introductory stage of the product life cycle (PLC). Support for this conclusion also came from DeLozier [66] who stated: "In introducing a new brand, a company would be wiser to use a two-sided ad campaign than a one-sided campaign. The new brand will eventually come under retaliation from the counterpropaganda of existing brands. The two-sided ad campaign should inoculate the consumer to such advertising."

In addition, Swinyard [67] attempted to explore the relationship between comparative advertising and copy claim variation. The results of the study indicated that comparative claims evoked significantly more counterarguing than noncomparative advertisements. This finding was accompanied by another, that comparative advertisements were perceived as less credible than noncomparative advertisements. On the other hand, two-sided product claims evoked fewer "discounting" counterarguments and consequently were more credible overall than advertisements containing one-sided claims. Compared with one-sided claims, two-sided claims also evoked greater evaluations of advertising truthfulness, as shown in Figure (6-3).

When two-sided claims were added to the comparative advertising format, more conviction and acceptability of the claims were obtained. It follows, therefore, that the inclusion of two-sided claims in a comparative advertising message should result in an advertisement which has the intended benefits of comparative advertising without all of the inhibiting effects. The study concluded that "the presence of two-sided product claims - in the current advertising environment, at least - evokes less counterarguing and facilitates advertising credibility."

Figure (6-3): Perceived credibility of test store advertising

Source: Swinyard, W.R, "The Interaction Between Comparative Advertising and Copy Claim Variation," Journal of Marketing Research, Vol XVIII, May 1981, p182.

However, in a recent study conducted by Belch [68], the effects of one- and two-sided comparative and noncomparative commercials were examined. For the purpose of the study, four television commercials were produced, a two-sided and a one-sided comparative advertisement and a two-sided and a one-sided

noncomparative advertisement. All four commercials made the same superiority claims for the brand advocated (ie. Shield).

The subjects were asked to respond to the dependent measures of message acceptance (attitudes toward using the brand advertised and purchase intentions concerning the brand). Other dependent measures were perceptions of advertiser objectivity and credibility. Prior preferences for the comparison brand (Crest) were assessed by using four measures, two behavioural and two attitudinal. Both types of measures were used in assessing prior preferences toward the comparison brand in order to capture the cognitive as well as the behavioural dimensions of brand loyalty.

The results of the study did not show any advantages of a two-sided message over a one-sided appeal. They were discouraging in terms of the usefulness of a two-sided or varied product claim appeal as a vehicle for enhancing message acceptance. These results proved to be true for both comparative and noncomparative messages. In the comparative conditions, where the disclaimer was perceived, the two-sided appeals did not generate more favourable cognitive responses or greater message acceptance in terms of attitude and purchase intentions.

It is worth noting that the ineffectiveness of the two-sided comparative message was explained by the researchers by the fact that the disclaimer may have been too subtle, particularly for television advertising.

In this respect, Belch compared his findings with those obtained in two studies by Settle and Golden and Smith and Hunt *

* The findings of these studies were reported earlier in this section.

which showed positive effects from the use of varied product claims. He suggested that "the consumer may perceive the advertiser as being more objective and factual when a multiple disclaimer is used than when only a single attribute is disclaimed. The use of a single disclaimer may have caused curiosity or bewilderment as to why the negative claim was made rather than a perception of the advertiser's objectivity and lack of bias."

Belch also argued that "print may be more effective than television as the medium for a two-sided appeal because a printed message allows the recipients greater opportunity to process the message stimulus." [69]

It seems clear, then, that the medium through which the two-sided message is transmitted is considered to be a major mediating variable in the effectiveness of a two-sided message.

However, Belch also claimed that his results were consistent with those obtained in studies^{*} by Etgar and Goodwin, and Mazis, who examined the communication effectiveness of comparative and noncomparative messages. However, he added that they "either failed to find significant differences with respect to the two types of messages or found only marginally significant effects." [70]

In conclusion, though Belch's study failed to confirm the results from several other studies on the effectiveness of two-sided messages, this lack of support may be due to the experimental procedure used by the researcher and the limitations imposed by

* Both studies were reported earlier in this section.

the use of television commercials as message stimuli. Indeed, this variation in the research findings suggests that further research is required to examine the effectiveness of the varied or the two-sided message in the context of advertising, especially by means of using the same message but varying the message channel (eg. print versus television). Also, the effectiveness of the varied message may be mediated by some source-related variables (eg. source credibility).*

In a study by Earl and Pride [71], the effects of advertisement structure, message sidedness, and performance test results on print advertisement informativeness were measured. After the researchers discussed the effectiveness of comparative advertising, which was based on the assumption that comparative advertisements are more informative than noncomparative messages, the results of the study provided partial support for the informativeness of comparative advertising. "Respondents exposed to comparative advertisements rated them as more informative than respondents exposed to noncomparative advertisements. However, the respondents were not able to recall product features any better when comparative advertisements were used."

The study also indicated that advertisements that present a two-sided message do not increase the respondent's awareness of the advertisement's informativeness over advertisements which present only a one-sided message (ie. arguments supporting the advocated position). However, the results indicated that the use of performance test results increases perceived advertisement informativeness.

* The persuasive effect of the interaction between message variation and source credibility will be discussed and tested in the present study.

However, in further research, Earl and Pride [72] tried to determine how disclosure attempts in advertising affect consumer confidence in product claims and advertiser credibility. In their study, the researchers exposed a group of 372 college student subjects to portfolios of print advertisements, including three nonexperimental advertisements and one experimental advertisement. The advertisements were varied by the use of comparative or noncomparative advertising, one-sided versus two-sided messages, and performance test results.

Subjects were asked to rate their levels of confidence in product claims and sponsor credibility for each advertisement. Comparative advertising led to increased confidence in product claims, but not in sponsor credibility.

The results of the study indicated that "the use of two-sided messages produced no significant impact on subjects' confidence in either product claims or sponsor credibility. However, subjects' confidence in both product claims and sponsor credibility was significantly improved through the use of performance test results showing a low differential in performance between a product and its competitor."

It is worth noting that the findings pertaining to the effectiveness of a two-sided message are consistent with the findings obtained by the researchers in their earlier study.

In conclusion, on the basis of the findings of the studies reported above, one might decide that the empirical evidence on the effectiveness of a two- versus a one-sided message is inconclusive. In some of the experimental studies reported above, an interaction between message variation (ie. sidedness) and other variables indicates that contextual factors have an important mediating effect on the impact of message variation on persuasion. Of particular interest in the present study is the

joint persuasive effect of message variation and source credibility, the subject of discussion in the next chapter.

(2) EFFECTIVENESS OF THE VARIED-REFUTATIONAL MESSAGE

It was indicated earlier that a refutational approach is one which expresses or acknowledges an opposing point of view and then proceeds to refute that claim. In addition, past research in the related fields of public opinion and persuasive communications had indicated that under certain favourable conditions the use of a refutational appeal might be more effective than the supportive or one-sided appeal.

The bulk of research specifically examining the relative effectiveness of refutational communication appeals has been reported by McGuire, and McGuire and Papageorgis.* The refutational approach was introduced by these researchers as a strategy to induce resistance to attacking persuasive communications (or competitive claims). However, with advertising claims being attacked by competitors, the government, and advertising agencies themselves (ie. by corrective advertisements), it is worth assessing the effectiveness of the refutational message as an advertising strategy to induce resistance to persuasion. Within this context, the refutational approach is really a defensive advertising strategy.

Ray [73] pointed out that when an advertising strategist sees realistically that consumers already have ideas that are counter to buying the product or brand, or when it is highly likely that

* The findings of this research will be discussed later in this chapter.

competitors' communications will either directly or indirectly attack the product or brand, it is necessary to have a message that will deal with this difficult communication situation. Ray added, "Such a message would not only promote the positive aspects of the message idea developer's brand but also attempt to answer, or at least counter, the attacks on the brand that are implicit in the media and in consumers' minds."

Moreover, Ray [74] attributed the effectiveness of the refutational advertising message to the following:-

- (1) In the drive and stimulus-cue area, refutations are more stimulating than supportive messages. They underline conflict and get people concerned about an area. This means that for advertising, a competitive tone might be used even in those situations where competition is not particularly great, ie. when people are really not too concerned about the area.
- (2) The refutational message seems to be effective because it refutes counterclaims and thus makes the competitive attacks seem less credible when they appear. This effect is due to the fact that refutation is quite rewarding to the audience. In socio-psychological terms, the statement of counterclaims can arouse dissonance or imbalance. In this respect, the refutation can restore balance and reduce cognitive dissonance.
- (3) A final reason for the effectiveness of refutational messages relates to the informational component of effective communication. Refutational messages do contain some supportive information. Even though such information is less than in supportive messages, this content probably contributes somewhat to the

effectiveness of the message.

However, it should be acknowledged that little research on the problem of inducing resistance to persuasion has been directly applied to advertising. Moreover, "Almost none of the advertising textbook literature deals with what might be said in an ad in order to reduce the effectiveness of inevitable competitive claims, that is, inducing resistance to persuasion."
[75]

Therefore, in the following pages we shall assess the effectiveness of the refutational message as reported in the available empirical advertising research, and then the extent to which the refutational approach has been applied in advertising.

2.1 EVIDENCE FROM ADVERTISING RESEARCH

Conventional tests of advertising effectiveness may be biased against refutational advertisement appeals. Copy tests which involve some measure of recall or preference for presented alternatives generally favour advertisements with relatively simple, straightforward product benefit appeals. The relatively uncomplicated supportive appeal (such as one-sided message appeal) may have an unfair advantage in terms of simple recall or recognition measures. Similarly, since McGuire [76] found that the motivating aspect of the refutational appeal requires some time lapse to work most effectively, the supportive appeal may benefit from tests that measure effects immediately following exposure to advertisements.

Research concerning marketing communications in general, and advertising in particular, has indicated that refutational appeals are a very effective approach in inducing resistance to later competitive communications.

In two studies conducted by Ray [77], it was found that there seems to be some intelligence or knowledge requirement necessary before consumers can effectively process a refutational message. In the two studies, those respondents who had completed high school were more favourably influenced by refutational-type messages than were those who had not completed high school.

Ray concluded that unless an individual knows the possible counterarguments to a brand or product, the refutational message would make very little sense. Also, the refutational message is less appropriate for the introductory and growth stages of the product life cycle (PLC) where the goals and events related to the product category have not been developed. In contrast, refutational advantage is much greater with market segments that contain competitive brands. For these people, a refutational message seems to be effective in answering the negative thoughts they may have in their minds about a particular brand.

Percy and Rossiter [78] suggested that a refutational strategy in the message is necessary in those advertising situations where two or more competing products are presented, but the advertised product is shown in a more favourable position (eg. the comparative advertising).

Sawyer [79] conducted an experiment which was designed to test the applicability of two-sided, refutational appeals to advertising and, in addition, to test hypotheses about the relative effectiveness of repetition of refutational and supportive advertising message appeals. The basic assumption was that the refutational appeal, because of induced inoculation, less perceived bias, reduced credibility of the competitor, and/or less psychological reactance, should perform better with repetition than the repeated supportive appeal. Therefore, it was hypothesised that "the relative persuasive effects measured by the purchase intention measure summed over all pairs of

competing advertisements would result in a positive interaction between repetition and the refutational appeal." [80]

Repetition should also help to overcome any tendency to screen the refutational communication selectively. Therefore, it was hypothesised that "repetition would interact positively with the refutational appeal on a measure of recall of the ad's copy points." [81]

To carry out his experiment, the researcher used a laboratory setting similar to that which was used in a previous experiment conducted by Ray [82]. Adult female shoppers in a shopping centre were asked to enter a mobile testing unit in order to watch a "shopping of the future" demonstration. This setting helped to disguise the true purpose of the experiment. After hearing a description about a futuristic in-home shopping system in which product advertisements and descriptions were shown via closed-circuit television, the subjects watched a series of slides of print advertisements on a 16" rear-view screen. These slides included either refutational or supportive advertisements for five products (test brands); the advertisements being exposed either 1, 2, 3, 4, 5, or 6 times. Each subject was randomly assigned to one of two treatments in which either refutational or supportive advertisements were repeated.

After exposure to the advertisements, the subjects were asked to fill out a questionnaire concerning the demonstration. Then they answered questions set to measure unaided recall of the advertisements, brand attitudes, purchase intention, and brand usage.

The findings of the study revealed that "there were no differences in purchase intention resulting from repetition of the refutational advertisement appeal in comparison with the supportive appeal. However, differences were found when

respondents were categorised as to their reported usage of each test brand and competitive brand. The effects of repeated exposure to the refutational and supportive advertisements varied for those subjects who, because of their brand usage, were likely to differ in initial attitudes and reactions to the message."

Sawyer concluded that "the greater effectiveness of refutational ad appeals for people who had never used the advertised brand helped to identify situations in which refutational ad appeals may be most effective. These situations might include: (1) a new product which must overcome some consumer objections (such as a rubbish compactor); (2) a brand with a low market share that wants to refute a large competitor's claims of superiority (such as the Avis versus the Hertz campaign); and (3) a high selling brand able to isolate a segment which is negatively oriented toward that brand (such as Allstate Insurance and the segment of "Consumer Reports" readers)." [83]

Finally, Sawyer tried to explain the findings of his study by stating:-

"The unique potential disadvantage of incomplete or negative recall of the refutational appeal is very salient in advertising where exposure, attention, perception, and learning are commonly unmotivated and often selective. A common format of current refutational print ads presents the attacking statement or question in the headline and then proceeds to refute that claim or answer the question in the body copy. Such a format may be quite attention-getting and clever. However, in order to help eliminate the danger of incomplete negative recall, advertisers should perhaps sacrifice some cleverness and emphasise the refuting answer at least as much as the attack."

However, two critical points regarding Sawyer's findings can be raised:-

- (1) There is some speculation that refutational appeals might be less effective in the more intrusive (less choice) medium of television (which was used in the Sawyer study) than in the less intrusive (more choice) print media [84]. Therefore, the refutational appeal might be more successful if print media was used in the experiment. In this regard, Sawyer's findings pertaining to the effectiveness of the refutational message are inconclusive.

- (2) Given replication of the laboratory results, the findings of the study should be tested in field experiments and in actual advertising campaigns.

Szybillo and Heslin [85] attempted to apply some techniques from inoculation theory^{*} in an advertising context.

* Inoculation theory will be discussed later in this chapter.

For the purpose of their experiment, the researchers exposed 272 students at Purdue University to a communication message discussing a certain belief, "Inflatable air bags should be installed as passive safety devices in all new cars." This belief was selected in accordance with the basic assumption of inoculation theory which states that, for an effective application of this theory, it may be necessary to have an issue which is relatively new and for which the subject population has not been called upon to refute explicit arguments against it.

The communication message was presented to the subjects in four versions: (1) a supportive advertisement which had an introductory paragraph mentioning that the belief in question was obviously valid, but that it was wise to consider some of the arguments as to why it was indeed valid; (2) a refutational-same advertisement which began with a similar introductory paragraph mentioning that the belief was obviously valid, but since occasionally one heard misguided counterarguments attacking it, it was wise to consider some of these arguments and show where they had erred. The arguments against the belief which were refuted in this advertisement were the same arguments which subsequently appeared in the attack advertisement; (3) a refutational-different advertisement which followed the same development as that of the refutational-same argument with one exception. The refuted arguments against the belief were not the same as those which subsequently appeared in the attack advertisement; finally, (4) a no-defence argument.

The researchers also varied the credibility of the source of a subsequent attacking message. "Consumer Reports" (issued by a government agency) was selected to represent a high credibility source for messages associated with automobiles. The American Automobile Manufacturers Association was selected as a medium to low credibility source for messages associated with installation

of air bags in automobiles.

The source's name appeared at the top of every attack advertisement. The researchers hypothesised that the refutational-same advertisements would be most effective in inducing resistance to the subsequent attack advertisement, followed by refutational-different, supportive, and no-defence advertisements.

The findings of the study indicated that "the refutational-same appeal conferred greater resistance to persuasion than did the supportive appeal, while the refutational-different appeal alone did not confer such an effect. However, when the refutational-different appeal was combined with the refutational-same, the resulting combination proved to be more effective than the supportive appeal in maintaining belief levels." These findings suggest that the refutational appeal is generally more effective than the supportive appeal in inducing resistance to subsequent persuasive communication attacking the position advocated by a previous communication.

On the other hand, the effects of the supportive appeal did not decay at a faster rate than that of the refutational appeal. It was found that "when the attack was immediate, there were no significant differences in the delayed conditions. The effects of the supportive appeal did not decay, whereas the effects of the refutational appeals decayed down to the level of the supportive appeals. Interestingly, there was somewhat less decay of the refutational appeals in the low-credibility-attack condition than for the high-credibility-attack." The researchers attributed this finding to the fact that subjects discounted the trust component of source credibility and assumed equivalent technical expertise between the two sources. However, it is worth indicating that the finding also suggests some interactive effect between the refutation and source credibility, ie. in the

long term the refutation in the message increased the perceived credibility of the source of low credibility by reducing the discounting cues of the low credibility source. Furthermore, the researchers suggested that just presenting the names of the sponsors may not have been a powerful manipulation of the source factor. The researchers concluded that "a time interval longer than three days might be necessary to find the hypothesised time advantage of refutational advertising appeals."

Support for this latter speculation by Szybillo and Heslin came from a previous study by Faison [86] who found that subjects of his study who had listened to two-sided commercials showed an increase in attitudes toward the brands four to six weeks after initial advertisement exposure.

One interesting conclusion which might be drawn from the findings of the studies reported above is that refutation of an attack's arguments confers more resistance to persuasion than supportive claims over time. However, there does seem to be a variety of situations in which the refutational approach can be effectively applied as an advertising strategy. These situations seem to be those in which there are some competitive counterarguments or the potential for them. The target segments for the refutational messages must have some minimal understanding about the product category, and the messages work best with those groups who are somewhat antagonistic to the brand or product in question.

An important reservation that must be considered is that "refutational appeals might be less effective in the more intrusive (less choice) medium of television than in the less intrusive (more choice) print media." [87]

This conclusion has been supported by Krugman's [88] low involvement model of television advertising effect which

suggested that individual commercial messages will have little or no effect on higher order levels of response which might be induced by a refutational message. The lack of in-depth processing for the commercial messages sent through television may limit the likelihood of finding significant effects for the refutational message.

With an increasingly competitive tone in current advertising, it seems clear that the refutational message approach is a useful strategy to be adopted by advertisers. Burgoon and Burgoon [89] suggested several reasons for this: first, society is becoming more educated. Second, the mass media present such a barrage of information on most issues of social import that it is unlikely that any target audience (eg. consumers) will be unaware of at least some of the opposing arguments (or competing brands). These mass media are available to any advertiser for conveying his claims. Finally, one cannot always determine whether a receiver initially agrees with or opposes the advertiser's position. A refutational message is thus probably less risky in most persuasive communication situations (including advertising).

At this point, we now turn to assess the extent to which the refutational strategy is applied in contemporary advertising.

2.2 THE REFUTATIONAL STRATEGY IN CONTEMPORARY ADVERTISING

Most advertising messages, of course, present only supportive points in favour of the viewpoint (or brand) advocated and do not mention any potential arguments opposing their position. By contrast, "refutational advertisements deal with competitor claims and then refute them." [90]

Ray [91] has shown that, "although advertisements presenting only the advantages of a brand may appear to be more effective in the

usual before-after commercial test situations, these situations do not take into account the longer-run impact of advertising nor the competitive environment in which most advertisements are read. Refutational advertisements may be superior when these two elements are considered." Ray also argued that when the competitive attack follows exposure of the message, "the refutational approach might often be superior to the supportive in advertising, despite the results in one-shot copy tests and despite the general belief that the competition should be ignored in advertising and marketing communication in general."

There is some evidence that advertisers have begun to realise this and have utilised the refutational approach. For instance, Hertz for many years used a supportive approach to promote the many benefits of renting a Hertz car. Avis, on the other hand, refuted the implicit claim that "No 1 equals the best," by suggesting that "No 2 tries harder." After a time, Hertz felt it was necessary to refute Avis's claims.

Ray [92] provided the following examples of refutational advertising:-

- (1) Mutual of New York refuted the counterargument that people would be better off putting less money in life insurance and more in stocks and bonds. The company used this advertisement:

"I'm in stocks and bonds. I'll take them over life insurance. But a MONEY man gave me a new look at life insurance. As an investment cornerstone it would protect my family ... and build cash, too!"

- (2) The text of a Polaroid Colour Pack Camera advertisement was a perfect refutational advertisement. It said:

"Sure you can live without it. The new Polaroid Pack Camera won't mow your lawn or drive you to the station. What it will do is deliver a beautiful colour picture a minute after you take it. And bring a new kind of kick into your life."

- (3) The following advertisement is another example of refutational advertising used by Renault:

"I won't buy a Renault no matter how good it is,"
 "It's not German. How good could it be?" "Sure,
 they save money, but I wouldn't take a long trip
 in one."

Aaker [93] cited an advertisement for British Caledonian Airways as an interesting version of refutational advertising. In the advertisement, "Fiona MacIntosh" is referred to as "the world's most hated Stewardess," in obvious contrast to her picture, which shows her with a happy child clinging to her. The theme is promoted by reference to British Caledonian as "the airline airlines hate."

Another interesting refutational advertisement was the Citroen 2CV car advertisement as a tortoise. The copy referred to the car as "it taught us all we know." The copy said:-

"It's not all bad being a tortoise. They do live to a very old age. They suffer few mechanical breakdowns. They have a very poor appetite for consuming petrol. They're not, as we know, the swiftest of creatures. But need we remind you of the story of the tortoise and the hare." [94]

The advertisement portrayed the car as a developed version of the tortoise. This pattern of advertising came at a time when virtually all car manufacturers were attempting to show how beautiful, luxurious, and large their cars were.

It is possible to overrefute or misguide a viewer as the previous example of the Renault advertisement showed. It is necessary in this case to include some supportive aspects in the advertisement and the headline should not be ambiguous or threatening like the Renault headline [95].

In general, although refutational messages are found to be superior to supportive messages in almost all studies of inducing resistance to persuasion (including those conducted in advertising), one disadvantage of refutational messages is that "they provide a viewer with information about the competitor's product and thus might help the competitor." [96] It is, nevertheless, a preferred approach in market situations where there are some competitive counterarguments or the potential for them. In such situations, the goal of an advertiser is to build resistance to attitude change and defend his brand against competitive advertisements which may lead the consumer of one brand to switch to another [97]. Therefore, the refutational appeal can work effectively.

In addition to demonstrating the relative effectiveness of a varied message (ie. a two-sided with/without refutation), the empirical findings reported have received considerable theoretical support. In the section that follows, an attempt will be made to examine the adequacy of inoculation theory in explaining the effectiveness of refutation in persuasive communication and the findings of empirical research conducted in its context.

**SECTION 5: INOCULATION THEORY AS A TOOL TO EXPLAIN THE
EFFECTIVENESS OF REFUTATIONAL MESSAGE**

In this section, we examine the adequacy of inoculation theory in explaining the effectiveness of refutation in inducing resistance to persuasion.

Inoculation theory was formulated and has been extensively explored by McGuire [98]. It describes the mechanism by which an individual's resistance to attacking persuasive communication can be induced.

The name of the theory derives from the obvious analogy to medical inoculation where an individual is immunised against some attacking virus by the introduction of a small amount of that virus (which causes the disease) into the individual's system. This mild dose stimulates the individual's defences so that he will be better able to overcome any massive viral attack to which he may later be exposed.

From this analogy, McGuire predicted that pre-exposure to a weakened form of an attacking argument would create greater resistance to subsequent heavy persuasive counterargument than merely providing the receiver with a prior message in support of his own belief, provided that the weakened attacking argument is not so strong as to be threatening. Accordingly, McGuire suggested that an effective defence should have:-

- (1) A threatening component which produces realisation of the vulnerability of the belief and which supplies motivation to acquire belief-bolstering arguments.
- (2) An information component which provides the required arguments.

He reasoned that a prior defence which merely offers support (ie. information component only) for a belief fails to induce resistance to subsequent attack since it belabours the obvious.

With reference to the above predictions, McGuire assumed that:-

- (1) Prior defensive treatment, such as a refutation of the attack, would serve as a threat to the belief by alerting the individual to the possibility of attack.
- (2) Prior defensive treatment would motivate the individual to accept the information in the message and develop a new defence whose validity will support his position.
- (3) Supplying motivation alone is inadequate for an effective defence. Because of the believer's lack of prior practice, he may not be able to bolster his belief sufficiently unless he is given careful guidance concerning how to develop defensive material. Also, if he is required to develop such material on his own initiative, he must at least be given considerable time to do so.

The above assumptions have been extensively investigated by McGuire and his colleagues in a series of experiments. In these, the researchers dealt with long-held beliefs, ie. beliefs that the person has seldom, if ever, heard attacked. The researchers chose "cultural truisms" as the beliefs to be made resistant to persuasive attacks. "Cultural truisms" were described as "beliefs that are so widely shared within the person's social milieu that he would not have heard them attacked, and indeed, would doubt that an attack were possible." [99]

One important factor with which the researchers were concerned was the amount of threat contained in the defences. Accordingly,

two basic types were used: (1) a supportive defence, in which the message ignored all opposition arguments. It was thus non-threatening, and consisted of giving the believer (ie. the subject) various arguments in support of the truism. (2) a refutational defence, in which the message presented arguments attacking the belief, and then proceeded to refute these attacking arguments. Such a defence was more threatening.

These refutational defences, considered in relation to the subsequent attacks, were one of two types. Either they mentioned and refuted the same arguments that were subsequently used in the attacking message against the truism, or they mentioned and refuted arguments different from those to be used in the subsequent attack. So, the former type was termed a "refutational-same" defence, and the latter a "refutational-different" defence. This refutational-same versus refutational-different defensive variation was useful "in determining whether any increased resistance to persuasion derives from the generalised motivational effect of the threatening mention of the arguments against the truism (as required by inoculation theory), or whether it stems from the useful defensive material provided directly by the refutation." [100] However, because the experiments varied in relation to their purposes, each of them will be reported separately.

In a first experiment; McGuire and Papageorgis [101] tried to test the relative effectiveness of supportive versus refutational-same messages. The subjects (who were college students enrolled in introductory psychology courses at a large state university) were asked, in a regular meeting, to read a defensive essay on one truism and write a defensive essay on another. Two days later, they read messages attacking these two truisms and also a third, non-defended truism. On a fourth truism, they received neither defence nor attack. Subjects then filled out a questionnaire measuring their beliefs on all four truisms.

For approximately half of the subjects, each defensive essay was supportive. It mentioned four arguments supporting the truism and then either presented a paragraph substantiating each argument, or asked the student to write a substantiating paragraph for each argument. For the other half of the subjects, each defensive essay was refutational. It ignored supportive arguments and instead mentioned four arguments against the truism. It then either presented a paragraph refuting each (the "passive condition"), or called upon each subject to write a refuting paragraph against each argument (the "active condition").

The findings of the study indicated that "the more threatening, refutational defence was clearly superior to the supportive defence in conferring resistance to the subsequent attack." However, the supportive defences were apparently superior to the refutational ones in terms of their direct strengthening effects.

The researchers commented on this finding by stating "the defenses which left the beliefs seemingly strongest tended to be the defenses which conferred the least resistance to subsequent attacks. This reversal, called the 'paper tiger' phenomenon, shows the peril of assuming the immunizing effectiveness of a defence to be a direct function of its apparent strengthening effect, and is in accord with the inoculation theory."

In a later experiment, Papageorgis and McGuire [102] tried to compare the resistance-conferring efficacy of the refutational-same defences versus the refutational-different defences. The major purpose of this experiment was to test the hypothesis that "if, as implied by the inoculation theory, the refutational defence derives its immunizing efficacy from mentioning of arguments stimulating threat against the truism, then its effectiveness should be general and manifested even against attacks using novel arguments. On the other hand, if the

refutational defence gains its effectiveness solely from the refutation rather than the mention of the arguments, the resistance it confers should be more specific to attacks by the same arguments that had been refuted."

Thus, the study was designed to distinguish between these two explanations. However, in order to carry out their study, the researchers used alternative forms of passive (reading) refutational defence for a truism stating that: "regular tooth brushing is good for your health." Each form employed a different pair of arguments against the truism. Correspondingly, there were two forms of the message attacking the truism, each form mentioning and then confirming one of these pairs of attacking arguments. Therefore, each given pair of arguments refuted in a defence was followed by an attack using the same arguments for half the subjects, and by one using the different pair of arguments for the other half. All the subjects took part in two sessions, defending in one, attacking in the other, the sessions being separated by a one-week interval.

The findings of the study indicated that the refutational defences conferred appreciable resistance to subsequent attack even when refuted arguments in the defence were different from those used in the attack (ie. refutational-different defence). However, resistance developed against the subsequent counter-arguments which was similar to those used in the attack (ie. refutational-same defence) was slightly higher than that developed against the refutational-different.

The researchers concluded that "these outcomes tend to conform to inoculation theory, since the refutational defence confers resistance even to novel attacks. Indeed, the resistance to novel attacks that was produced is significantly less than the resistance to attacks by the very same arguments that were refuted."

In a further attempt to identify the mechanisms underlying the resistance conferred by the refutational defence, McGuire [103] carried out an experiment in which the aim was to compare the immunising efficacy of combinations of supportive and refutational defences with that of single defences. In keeping with inoculation theory, the researcher attributed the ineffectiveness of the supportive defence to the believer's lack of motivation to assimilate its arguments. He suggested that "the supporting statements seemed to belabour the obvious. The refutational defence did supply some motivation by its threatening mention of arguments against the truism, but did not, in the case of the refutational-different defence, supply any specifically useful material to the unpractised subject for acting on this induced motivation to bolster the truism." The researcher predicted that the supportive and refutational defences when used together would confer more resistance than the sum of their individual effects. He further predicted that the interactive effect would be more significant when the supportive defence is added to refutational-different than when added to refutational-same defences.

To test these predictions, McGuire used a sample of 162 students enrolled in introductory college courses. The subjects received three forms of defences: (1) supportive-only, (2) refutational-only, or (3) supportive-plus-refutational defences. Each of these defences was related to different truisms. In the case of refutational defences, half were refutational-same, and half, refutational-different. The attacking session followed immediately after the defensive.

The findings of the study showed that both of the combination predictions were confirmed. However, when used alone, neither the refutational-different nor the supportive defence conferred significant resistance to the immediate attacks. Specifically, the results revealed that the combination of the supportive and

the refutational-different defences was especially effective. Also, there was a significant interaction between the refutational-only versus refutational-plus-supportive defence and refutational-same defence versus refutational-different defence. In the author's words: "The refutational-different defence profited more from the addition of the supportive defence as regards producing resistance to an immediate post-defence."

McGuire [104] examined the persistence of the resistance induced by the different types of defences (ie. supportive versus refutational-same versus refutational-different). He tested the effects of time between original and attack messages on the three original message conditions: (a) a refutational-same appeal, in which a refutational appeal refutes the opposition arguments that are subsequently used in the attacking message, (b) a refutational-different appeal, in which the messages refute opposition arguments different from those subsequently used in the attacking message, and (c) a supportive appeal, in which the original message ignores all opposition arguments. The opposition arguments were presented either immediately after the original message or two to seven days later.

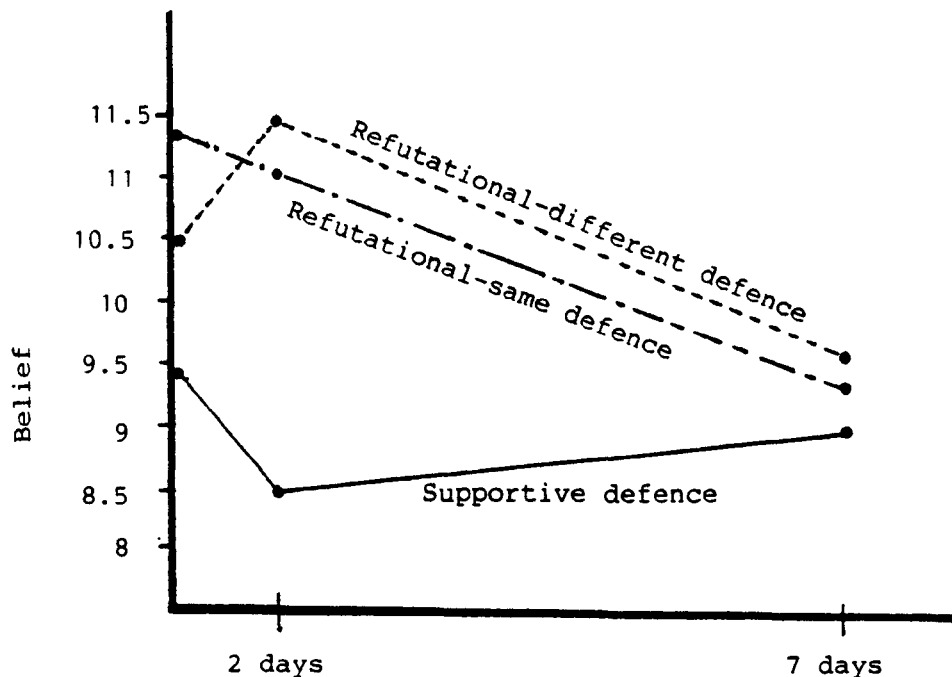
Each of the 160 subjects received the defence of one truism several days before the attack (for 80 subjects, it was 2 days before; and for the other 80, 7 days before). All received another defence a few minutes before the attack. The design thus included three different intervals between defence and attack. Equal numbers of subjects received supportive, refutational-same, and refutational-different defences at all three intervals.

The findings of the experiment indicated that the persistence of the resistance induced by the refutational-same appeal decayed at a much slower rate than the others. It persisted for the first few days, then decayed; the refutational-different appeal showed some increase in resistance with the passage of time during the

first few days, then decayed to about the same level as the refutational-same message. The supportive appeal on the other hand, began at a lower level of resistance than either refutational appeal, and simply decayed over a period of time.

In addition, a predicted nonmonotonic effect in the refutational-different condition was confirmed. "Resistance to attacks 2 days later is actually greater than to immediate attacks. This predicted delayed-action effect was significant at the 0.05 level. The predicted greater persistence during the first 2 days of the resistance conferred by the refutational-different over that conferred by the refutational-same defence was significant at the 0.05 level." Figure (6-4) shows these findings:-

Figure (6-4): Persistence of the resistance to persuasion induced by the three types of defences



Source: McGuire, W. J., "Persistence of the resistance to persuasion induced by various types of prior belief defences," Journal of Abnormal and Social Psychology, Vol 64, 1962, p 241.

However, it is worth noting that all the studies conducted within the context of inoculation theory dealt with conferring resistance on a special type of belief, namely the "cultural truism." The same predictions regarding the immunising efficacy of the refutational defences might yield different conclusions when they are applied in an advertising context. Hence, as McGuire [105] stated, "generalisation from the above studies to other types of belief is not warranted. Further experiments will have to determine if inoculation theory will predict the immunizing efficacy of various types of defenses in the case of controversial beliefs as successfully as it has for truisms." Perhaps, "it may be necessary to have an issue which is relatively new and for which the subject population has not been called upon to refute explicit arguments against the belief."
[106]

Finally, in the absence of conclusive evidence on the persuasiveness of both source credibility and message variation, it could be predicted that a varied message (with/without refutation) would produce a more persuasive effect when it is presented by a high credibility source. Each of the two variables will profit from the effectiveness of the other, and thus a more persuasive effect will be produced from their interaction. In the next chapter, an attempt will be made to examine the persuasive effect of the interaction between source credibility and message variation.

SUMMARY AND CONCLUSION

Throughout this chapter, an attempt was made to conceptualise message variation and to assess its effectiveness in inducing both persuasion and resistance to persuasion. In addition there was an attempt to assess the effectiveness of message variation in an advertising context. Finally, the chapter contains an examination of the adequacy of inoculation theory in explaining the effectiveness of refutation in inducing resistance to persuasion. Specifically, the discussion in this chapter was divided into five major sections as follows.

The first section was devoted to the definition of the message variation concept. In this context, several definitions were discussed. The common thread among all those definitions was that message variation implies the presentation of opposing arguments, as well as arguments supportive of the communicator's position. However, when the concept of message variation is broadened, it may imply the refutation notion which is based on presenting opposing arguments then proceeding to refute (or deny) them. According to this rationale, message variation involves two levels; variation by presenting the two sides (ie. the supportive and opposing arguments) of an advocated position, and variation by presenting both types of arguments and then refuting the opposing arguments. Thus, two types of varied message can be distinguished: a varied message which is based on the presentation of the two sides of the communicator's position, and the varied-refutational (or refutational) message which is based on the presentation of the two sides of the communicator's position and then refutes the opposing arguments. Thus the distinction between the two types is based on the extent to which the opposing arguments are refuted in the context of the persuasive message.

The second section dealt with the relative effectiveness of varied versus nonvaried messages. It was concluded that a varied message is more effective than a nonvaried message, especially under the conditions where (1) the members of audience are highly educated, (2) the members of audience are likely to be exposed to subsequent counterarguments, and (3) the audience initially disagree with the communicator's position. However, a nonvaried message proved to be effective in situations different from those mentioned above.

In the third section, we examined the effectiveness of the varied-refutational message approach in inducing resistance to subsequent persuasive communications. The major theme in this section was the use of the varied-refutational approach as a strategy to induce resistance to persuasion. It was concluded that refuting the opposing arguments in the context of the persuasive message is effective in inducing resistance when the members of the audience are likely to be exposed to subsequent attacking communications (ie. counterarguments). In this respect, refutation may have the effect of providing immunity against counterarguments.

Section four, however, was devoted to assessing the effectiveness of message variation (with/without refutation) in advertising. To facilitate this task, the discussion was divided into two subsections. In the first, the effectiveness of the varied message was assessed. In the second, the discussion dealt with the effectiveness of the varied-refutational message. Again, the findings of the empirical research conducted in the field of advertising provided considerable evidence that a two-sided message is more effective than a one-sided message.

On the other hand, it was concluded that a refutational approach is increasingly gaining wider support as an effective defensive strategy to be used by advertisers in present-day advertising,

where a high degree of competition is clearly seen to exist.

Finally, given the relative effectiveness under certain conditions of varied versus nonvaried messages, it was necessary to establish a theoretical base to explain the effectiveness of message variation as a persuasive communication approach. Therefore in section five, an attempt was made to examine the adequacy of inoculation theory as a means of explaining the effectiveness of refutation in inducing resistance to persuasion.

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CHAPTER SEVEN

**THE RELATIONSHIP BETWEEN SOURCE CREDIBILITY
AND MESSAGE VARIATION**

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AND MESSAGE VARIATION

INTRODUCTION

In Chapter Five, the issue of the persuasive effect of source credibility was addressed and a number of empirical studies examining this effect were reviewed. On the basis of these studies, it was concluded that there is no consistent or uniform empirical evidence regarding the persuasive effect (either the main or the interactive effects with other variables) of source credibility. However, experimental research* examining the interaction between source credibility and other variables suggest that source credibility operates more effectively when it interacts with these variables rather than in isolation.

Therefore, the particular interest in this chapter is to assess the possibility of a mediating effect by message variation on the persuasive impact of source credibility.

Although most of the empirical literature has focused on the interactive persuasive effects of the communicator's credibility and some message variables such as message discrepancy, threat and the use of evidence, no study has explored the interactive

* The findings of the empirical research regarding the interaction between source credibility and other variables (which are related to the source, message, receiver, and media) were extensively reported in Chapter Five.

persuasive relationship between source credibility and one important message-related variable, message variation, (ie. presenting supportive, as well as opposing arguments with/without refuting the opposing arguments).

Cognisant of the notion that "a message sender is, in a sense, a part of the message itself," [1] this chapter attempts to examine the interactive persuasive effect of source credibility and message variation, and to explore the validity of message variation as an approach to be recommended for use by advertising strategists in order to enhance the persuasiveness of the source and in turn, to maximise the effectiveness of advertising. Specifically, this chapter is designed to consider the following issues:-

- (1) The basic models of attribution theory: a conceptual framework.*
- (2) The interaction between source credibility and message variation: the empirical evidence.

Each of these issues will be dealt with separately.

* The rationale behind starting with this issue is that all the empirical research on the interaction between source credibility and message variation has been conducted under the rubric of Attribution Theory.

**SECTION 1: THE BASIC MODELS OF ATTRIBUTION THEORY:
A CONCEPTUAL FRAMEWORK**

Because of the high potential of attribution theory to order the interactive effects of source credibility and message variation, it is appropriate to examine the basic models of this theory, so that we can develop what might be considered a conceptual base for predicting the interactive effect of message variation and source credibility.

Attribution theory can be used "to explain how people infer the causes of other people's behaviour." [2] Basically, attribution theory is a set of conceptualisations, developed largely by social psychologists. The theory "seeks to describe the cognitive processes involved when an individual assigns an observable event to its underlying cause(s)." [3] In this sense, attribution theory is primarily "a means of dealing with questions of social perception. If a person advocates a certain position, does this reflect his true opinions, or is it to be explained in some other way?" [4]

In persuasive communication situations, "attribution theory is a useful instrument in explaining how message recipients' own behaviour in response to a persuasive communication affects their subsequent attitude toward that behaviour. It also can be used to specify the process by which people evaluate communications from others and it identifies the attitudinal effects of this evaluation." [5]

In fact, attribution theory can be separated into three distinctive paradigms which refer to "attribution of effects elicited by one of three types of causal "objects:" an inanimate object such as a product, another person such as an advertiser or source of communication, and oneself." [6]

However, investigation of the mediating effect of message variation in the persuasiveness of source credibility basically implies the "another person" attribution paradigm which postulates how an individual ascribes or attributes property X to person Y. More specifically, given an opinion or attitude expressed by another person, how does an observer (or receiver) determine whether the act (the expressed opinion) was caused by the other person's true beliefs or by some other situational constraints (eg. lack of choice). Therefore, "the other person attribution paradigm merely postulates the process by which one person judges the trustworthiness of an act as an indicator of the other person's true disposition." [7]

In general, the mediating effect of message variation in the persuasive impact of source credibility can be efficiently explored by means of four basic attributional conceptualisations. These are: (1) the naive psychologist model as developed by Heider, (2) the correspondent inference model as developed by Jones and Davis, (3) Bem's model of self-perception and (4) the causal inference model as developed by Kelley. All these models dwell on the conditions which determine whether a behaviour (or event) is attributed to internal (or dispositional) causes or to external (or situational) causes.

Because these models have been widely used in studies investigating the mediating effect of message variation in perceived source credibility in advertising, each will be extensively analysed.

1.1 THE NAIVE PSYCHOLOGIST MODEL

This model was developed by Heider [8]. Its focus was on how individuals understand and attempt to validate their perceptions of others. In this context, the individual's (or observer's)

task is to interpret or infer the cause(s) of the observed action. Accordingly, the individual seeks to find sufficient reason(s) to explain why the other person (ie. the actor) acted and why the act assumed a particular form.

The perceiver's explanation-seeking process ends when an intention or motive is believed to have the quality of being a sufficient reason for the observed action. In this regard, Heider suggested that "individuals seem to operate as "Naive psychologists" in understanding the behaviour of others." He proposed that "people do this by perceiving others as the "prototypes of origins," ie. that their actions best explain causality."

Heider's second focus was on distinguishing between personal and impersonal responsibility (ie. the personal versus the impersonal causality) for the action under consideration. Obviously, according to Heider's attributional analysis, "the cognitive process of establishing sufficient reason for an action involves processing available information about, or making assumptions about the links between stable individual dispositions and observed action." [9]

Thus, to make attributional inference, two conditions are required: the first is the assumption of knowledge of the action's consequences which the actor could not have foreseen. The second is the perceiver's judgment of the actor's ability to bring about the event observed. Simply put, when a person's action has certain consequences, it is important for the perceiver (or the observer) to determine whether these consequences are in response to the actor's intentions. Whether the perceiver's judgment (or conclusion) is correct or incorrect, this judgment obviously will affect the perceiver's behavioural response (such as his attitude or behaviour) to the actor's behaviour and his intentions.

Along this line of thinking, Heider suggested that "the more the perceiver (or observer) feels that personal force is behind the actor's behaviour (ie. the action), the more he could infer from that behaviour."

Although Heider's model is considered to be the first attempt to develop many of the basic concepts of attribution for person-perception, upon which most of the subsequent attributional research was based, the model fell short of providing an integrated conceptual framework for direct application to promotional situations (eg. advertising). For this reason, we turn to examine another model of attribution theory.

1.2 THE CORRESPONDENT INFERENCE MODEL

The correspondent inference model was developed by Jones and Davis [10]. It is based on the basic notions of Heider's model. However, it made the latter "more amenable to empirical tests." [11]

The correspondent inference model describes particular types of attributions rather than causal inferences in general. Specifically, the model systematically accounts for a perceiver's inferences about what an actor is trying to achieve by a particular action. Therefore, the model focuses on the effects of action rather than the actions themselves.

According to this model, a person attributes events to either "internal" or "external" causes. "Internal causes reflect the actual dispositional properties of the actor (eg. his truthfulness), whereas external causes reflect situational constraints." [12] In any person-attribution situation, the major problem facing the observer (or perceiver) is to determine whether the actor's dispositions correspond to the observer's

perception of the actor's behaviour. Within this context, Jones and Davis defined correspondence in this manner:-

"Given an attribute-effect linkage which is offered to explain why an act occurred, correspondence increases as the judged value of the attribute departs from the judge's conception of the average person's standing on that attribute." [13]

Therefore, "correspondence" refers to the match between the actor's observed behaviour and his dispositions as inferred by the observer. Accordingly, if an observer attributes an actor's behaviour to the true feelings or dispositions (internal causes) of the actor, he has made a correspondent (or dispositional) attribution. That is, the actor's behaviour corresponds to his disposition. On the other hand, if an observer attributes an actor's behaviour to situational (external causes) factors, the causal inference is noncorrespondent, because there is no necessary relationship between an actor's behaviour and his true feelings.

Furthermore, Jones and Davis indicated that the more correspondent the attribution, the more information about the personal dispositions of an actor will be inferred by an observer. This notion is consistent with Heider's conclusion that "the more the perceiver feels that personal force is behind the actor's behaviour, the more he could infer from that behaviour."

As a result, correspondent attributions are made with more confidence and hence accentuate the behavioural implications of the causal inference process.

Jones and Davis proposed three criteria that the individual uses for making attributions. These are:-

- (1) Choice and effects - the individual is assumed to have a choice among actions (or inactions).
- (2) The commonality of effect - according to the correspondent inference model, "noncommon effects" are useful for inferring internal (or dispositional) attributions about an actor, as opposed to external (or situational) attributions.
- (3) The desirability of the effect or its cause; the more undesirable the action or its subsequent effect, the more readily and more confidently causality can be inferred.

Based on the above criteria, correspondence is viewed as "an inverse function of (a) the number of noncommon effects following the action, and (b) the assumed social desirability of these effects." [14] To illustrate, the correspondent inference model postulates that noncommon effects indicate the basis of choice more clearly than do common effects. Common effects reflect external (or situational) constraints. Therefore, to the extent that a choice results in noncommon rather than common effects, it yields a stronger inference of correspondence. Moreover, the fewer the number of noncommon effects, the more is the correspondence, for a few noncommon effects indicate the actor's intentions more precisely than a larger number.

The model also holds that the effects of the choice should be more descriptive of the uniquely personal characteristics of the actor than of the external factors. It follows that the lower the social desirability of a chosen alternative, the stronger is

the correspondent inference. In this regard, Jones and Davis stated:-

"To learn that a man makes the conventional choice is to learn only that he is like most other men ... In general, we learn more about uniquely identifying intentions and dispositions when the effects of a chosen action are no more universally desired than the effects of a nonchosen action." [15]

It may be helpful in summarising the correspondent inference model's ideas to consider the joint operation of effect desirability and effect commonality as determinants of correspondence. Figure (7-1) shows this relationship:

Figure (7-1): Effect desirability and effect commonality as determinants of correspondence

		Assumed desirability	
		High	Low
Number of Noncommon effects	High	Trivial Ambiguity	Intriguing Ambiguity
	Low	Trivial Clarity	High Correspondence

Source: Jones, E.E, and Davis, K.E., "From Acts to Despositions: An Attribution process in person perception," In Leonard Berkowitz (ed), Advances in experimental social psychology, Vol 2, Academic Press, New York, 1965, p229.

As the figure above illustrates, actions which lead to effects deemed highly desirable to most persons cannot help but be trivial from an informational point of view. Also, when the number of noncommon effects is high, an observer cannot escape from the ambiguity of his information in making inferences either to common or idiosyncratic personal characteristics. In line with the stated theoretical relationship, the high correspondence cell of the figure (7-1) is that in which assumed desirability and the number of noncommon effects are both low.

Within this context, Jones and Davis suggested that the prior probability that the action or its subsequent effects are desirable and common is a major determinant of correspondence. When the actor's behaviour is perceived by an observer as uncommon or unexpected (ie. abnormal behaviour), the low prior probability condition is satisfied. On the other hand, if an actor's behaviour is perceived by an observer as highly common and desirable (ie. widely shared in the cultural environment), the high prior probability condition is satisfied. While an actor's behaviour is attributed to his true feelings (or dispositions) under the low prior probability condition, this behaviour would be attributed to environmental (or situational) causes under the high prior probability condition.

It is worth mentioning that "most social psychological research has treated the concept of correspondent inference as equivalent to that of a strong internal attribution which may reveal that an actor is truthful, and then the perceived credibility of the actor (eg. the source) should be increased." [16]

It seems clear that the focus of Jones and Davis's conceptualisation primarily involves the person-perception, although person-perception may intervene in object-perception as is the case in the credibility of advertising where two attributional processes may take place, viz an other person

(eg. the source) attributional process; and an object (eg. the advertising message) attributional process. In this context, the perceiver's (or the observer's) response to the advertising message will be an outcome of the interaction between the message and the source who delivers it.

In addition, the concepts of noncommon and desirable effects woven by Jones and Davis suggest "the sequence of attribution and the influence of Heider's concepts of actor knowledge and ability. Their model states that the actor must have knowledge of the effects that will be produced from his action, as well as the ability and intention to perform the action." [17]

1.3 BEM'S CONCEPTUALISATION

Just as the other attributional theorists proposed that people attempt to understand their environment by perceiving others' actions to make attributional inference, Bem [18] has another approach in inferring causation and disposition. He argued that "Individuals also look to their own actions or verbal reports to judge inferences about themselves." [19] For example, individuals judge their own attitudes and beliefs about environment by observing their own behaviour and the conditions under which they feel it occurs.

Bem believes that only slight differences exist between self- and person-perception in the type of information available. The common problem in this respect concerns the person's judgments of his own ability, feelings, attractiveness, etc.

However, a specific focal concern in Bem's conceptualisation of how people make causal attributions about the environment is the process a person uses to infer his true attitude from verbal reports or similar actions. In developing his conceptualisation,

Bem employed Skinner's distinction* between "tact" and "mand." In order to determine whether a response had tact or mand properties, Bem used a simple presence or absence test. According to this test, the presence of a strong reward or threat would suggest mand properties, ie. a strong inference of environmental causation. If no strong reinforcement was present, this would suggest tact properties and lead the individual to infer an internal cause (eg. his true attitude) for the behaviour.

It is worth mentioning that Bem's model of self-perception was readily adaptable to Kelley's attributional model, and many conceptual bridges between the two models exist. These can be explored through our discussion of Kelley's model in the next part.

1.4 THE GENERAL CAUSAL INFERENCE MODEL

Drawing upon the work of Heider, Jones and Davis, and Bem, Kelley [20] developed the general causal inference model.

In his description of the attribution process, Kelley distinguished between the attributional processes for the two basic types of situations in which attributions are made. The first situation refers to the multiple observations of the effect over time. The second refers to the single observation situation. In each of these two situations, the attribution process is subject to different attributional principles.

* Skinner developed this distinction as an alternative explanation for cognitive dissonance in early attitude-change studies.

According to Kelley, in a multiple observation situation, the "covariance principle" of causal attribution is evoked. In the single inference situation, however, the "configuration principles" (ie. discounting and augmentation) are evoked. For their significant contribution to the understanding of source credibility in advertising, each of the two general principles will be discussed in some detail.

1.4.1 COVARIANCE PRINCIPLE

The covariance principle as postulated by Kelley's attributional model states, "An effect is attributed to the one of its possible causes with which, over time, it covaries. The principle applies when an observer has information about the effect at two or more points in time." [21]

It should be noted that the principle of covariance between effects and their potential causes is the major theme in Kelley's conceptualisation of the attribution process. In this conceptualisation, Kelley delineated three dimensions of potential causal inference: (1) the stimulus object, which is placed on the entities' dimension, and which refers to the person or object being observed, (2) the observer(s) of the effects, placed along the person's dimension, and which refers to the person who interacts with the entities, and (3) the context, in terms of time and/or modality, in which an effect occurs. The interaction of these three dimensions leads to attributing causality to one or several of these factors.

Drawing upon these notions, the actor (or communicator) must express the same opinion or attitude in different situations, to different people, at different times. Observation over time and contexts allows an individual observer to rule out possible situational (or environmental) causal factors present in any one context.

Kelley [22] suggested that "the framework afforded in this case is the basis for making causal inferences about the communicator and message."

1.4.2 CONFIGURATION PRINCIPLES

In making attributions in a single observation situation, an observer may use one of two basic principles: the discounting and augmentation principles.

According to Kelley [23], the discounting principle is appropriate where there are several factors present which cause the effect. Specifically, the role of a given cause in producing an effect is discounted if other plausible causes are also present. On the other hand, the augmentation principle is applicable if inhibitory factors are present. In this regard, Kelley stated:-

"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." [24]

It seems clear that the augmentation principle implies a slightly different configuration. It describes "the trade-off between two quantitatively graded causes." [25]

A final point in Kelley's attributional model concerns choice. In this respect, Kelley formulated four distinctive criteria which are supposedly used by an observer to ascertain whether the impression reflects the inherent properties of the entity (ie. the communicator) rather than some environmental (or

situational) influences. These criteria are:-

- (1) Distinctiveness - the effect is attributed to the entity (or the communicator) if it uniquely occurs when the entity is present and does not occur in its absence.
- (2) Consistency over time - each time the entity is present, the observer's reaction must be the same, or nearly so.
- (3) Consistency over modality - the reaction must be consistent even though the mode of interaction with the entity (the communicator) varies.
- (4) Consensus - actions or their effects are perceived the same way by all observers.

Kelley proposed that:-

"To the degree that a person's attributions fulfil these criteria, he feels confident that he has a true picture of his external world. He makes judgments quickly and with subjective confidence ... When his attributions do not satisfy the criteria, he is uncertain in his views and hesitant in action." [26]

Generally speaking, for several reasons, Kelley's conceptualisation of attributional process provides a promising framework for most promotion (including advertising) research. First, although the majority of problems confronting advertisers involve the consumer's evaluation of the advertised product, which requires the processing of information about products and services, rather than about other persons, Kelley's conceptualisation made it clear that person-perception can

mediate object-perception. Therefore, Kelley's model provides a useful instrument in understanding how a consumer judges the source's credibility in advertising situations. Second, Kelley's conceptual framework provides a major stream of concepts which can be borrowed and applied in most promotional research.

The preceding discussion focused on the major attributional models which constitute the cornerstone of attribution theory. Although these models have many aspects in common, it should be recognised that they differ in others. Table (7-1) summarises the major similarities and differences among the four models in relation to several dimensions.

In conclusion, the basic notions postulated by the models of attribution theory provide an integrated conceptual framework which can be used in predicting the interaction between message variation and source credibility. Of particular importance are two distinct attributional paradigms: the "other person" and the "object" attributions. The "other person" attribution paradigm postulates how an observer determines whether an opinion or attitude expressed by another person (eg. a communicator) is caused by the other person's true beliefs (or his trustworthiness) or by some situational constraints (eg. the lack of choice). In other words, the other person attribution describes the process by which one person judges the validity of an act (or effect) as an indicator of the other person's true dispositions.

On the other hand, the "object" attribution paradigm postulates how an observer determines whether an opinion or attitude expressed by another person is caused by the qualities (or properties) of the object or by several situational causes.

According to attribution theory, if an individual is presented with a message promoting a particular brand, the credibility of

Table (7-1): Comparison of the major models of attribution theory

The dimension \ The models	Heider's model "Naive Psychologist"	Jones and Davis model "Correspondent Inference"	Bem's Conceptualisation	Kelley's General Inference Model
1 Major focus	Person-perception	Person-perception	Self-perception	Object and general perception
2 Basis for attribution	Naive analysis of actions, using levels of personal responsibility	Commonality and desirability of effects	Perceived freedom of choice, salience of initial attitude	Covariance causal analysis
3 Data used for making attributions	Others' actions or knowledge of others' actions	Perceived effects of others' action	One's own behaviour	Actions or effects of actions (events)
4 Major contribution	Originator of modern attribution theory	Made Heider's attribution theory empirically testable	Extended attribution theory to self-perception	Extended attribution theory to object and generalised perception
5 Outcome of attribution	Judgment of extent actor is personally responsible for action	Intention and underlying disposition of the actor	Perception of personal or environmental causality	Cause of an action or effect

Source: Constructed by the researcher from the literature review of the four models.

the source (or the communicator) would be judged through a combination of two distinct attributional processes: an "other person" attributional process, associated with an "object" attributional process. Therefore, the individual (ie. the observer) would attribute the message to (1) the source's true beliefs about the brand being promoted, or (2) the variable situational causes such as the source's desire to sell the brand.

Within the context of this dual attributional process, two attributional notions constitute the most applicable operative mechanisms: first, the notion of information value as formulated by the correspondence model of Jones and Davis [27]; second, the augmentation principle as developed by Kelley [28].

The idea of information value suggests that, when people follow average or expected behaviour patterns, we do not obtain much information about their dispositions. Rather, it is when they depart from these normal behaviour patterns that their actions manifest their true feelings.

Therefore, a correspondent causal inference occurs if the observer attributes an actor's behaviour to the actor's true disposition (ie. his truthfulness). According to correspondence theory, this normally happens when the observed behaviour is unusual or unexpected, ie. reflects low prior probability. Since the communicator (or the source) has selected uncommon behaviour in the situation, he must strongly hold the underlying disposition. As a result, when the observer's attribution is high in correspondence, the observer has perceived meaningful information about the actual dispositions of the communicator.

Thus, according to the correspondence formulation, "the presentation of a position that is unexpected from a source increases individuals' certainty that the message constitutes a veridical representation of reality. By contrast, when the

advocacy is expected from a source, message recipients are likely to be uncertain about the validity of the message. People are uncertain as to whether the message represents reality or the source's viewpoint." [29]

The hypothesis of uncommonality is consistent with another hypothesis formulated by Jones and Davis, which states that the strength of an internal attribution (ie. the correspondence) varies inversely with the assumed social desirability of a choice. If most other people would not have made the choice, the communicator is less likely to have been perceived on the basis of the external constraints (or situational causes). Rather, he is more likely to be judged on an internal disposition basis.

The hypothesis of assumed social desirability is consistent with Kelley's hypothesis of the choice distinctiveness. In Kelley's terms, "the choice is high distinctive if most people would not have made it."

Fortunately, the attributional notions discussed above were extensively used by researchers investigating the possibility of a mediating effect by message variation on perceived source credibility. Therefore, it is of particular interest in the next section to review the empirical research conducted on the issue (ie. the effect of message variation on source credibility).

SECTION 2: THE INTERACTION BETWEEN MESSAGE VARIATION AND SOURCE CREDIBILITY: THE EMPIRICAL EVIDENCE

Although there is no direct empirical research on the interactive persuasive effect of message variation and source credibility, considerable evidence exists indicating that variation in the message structure enhances the perceived credibility of the source which in turn, facilitates its persuasive effect.

Fortunately, most of the available empirical research in this regard has been conducted in a promotional communication (advertising) context, and under the rubric of attribution theory.

The attributional analysis was first applied to a promotional situation by Settle and Golden [30]. In their experiment, they attempted to present a theoretical model of the consumer's attribution process, and to examine the applicability of the attributional ideas to promotional situations.

The researchers hypothesised that the readers of advertisements would evoke attributional processes (in the form of covariance analysis).^{*} Specifically, the researchers predicted that when consumers are exposed to an advertisement, they are expected to attribute the promotional claim to either the actual characteristics of the brand being advertised or to the advertiser's desire to sell the brand. According to Settle and Golden, "if the message is attributed to the advertiser's desire to sell, the consumer would be uncertain about the actual characteristics of the brand and the probability of purchasing it

* The covariance principle of attribution theory was discussed earlier in Section One.

would be expected to decrease. An attribution to the actual characteristics, on the other hand, would be expected to lead to higher certainty and a higher probability of purchase of the brand."

Drawing upon this conclusion, the consumer's attitude toward the brand may be dependent in part on this attribution. In addition, the researchers assumed that "if the advertiser increases the number of positive claims for his brand, perceived covariance with the brand characteristics would diminish, and covariance with advertisers would increase in the mind of the audience member who is also exposed to other advertisers' messages. To a greater degree, the message might be attributed to such factors as the advertiser's desire to sell his brand, and the certainty value that any particular claim was valid would probably decrease as a result. Now, assume the advertiser decreases the number of positive claims for this brand, or that he disclaims superiority on some characteristics. The covariance of brand characteristics has increased while the covariance with the individual advertisers has decreased. To a greater extent, the audience would tend to attribute the message to the actual characteristics of the brand. Under these circumstances, they would hold positive experiences about fewer claims, but each with a higher certainty value associated with it." [31]

To test these propositions, Settle and Golden presented and administered a three-part questionnaire to 120 student subjects in business administration classes at the University of Florida. Subjects were presented with two different versions of printed advertisements for five different products. The first version (nonvaried product claim) promoted the product as superior on five preselected characteristics (three of which were thought to be important and two of which were thought to be relatively unimportant). The second version (varied product claim) promoted

the product as superior on the three important characteristics but not superior on the two unimportant characteristics.

The advertisements for the five products were then combined to form a booklet and given to subjects to read. The booklet contained different combinations of varied and nonvaried product claims. Following exposure to these treatments, measures were taken of the importance of each product claim to the respondent, and his confidence in each claim. The analysis of the data revealed that "the believability of some product claims and the credibility of the source may be increased by disclaiming superiority on some product features." Specifically, the researchers concluded that:-

"it would be better for the advertiser to disclaim at least one feature of minor importance than to exclude it from the message entirely; one disclaimed product feature would provide enough variation to improve significantly confidence and total expectancy."

They added:-

"The increase in confidence obtained by disclaiming two of the five product features did exactly compensate for the loss of expectancy value resulting from the two features disclaimed."

In our view, the study by Settle and Golden provides two major conclusions. First, it presents a direct support for the early results obtained by Faison^{*} regarding the effectiveness of two-sided (varied) advertisements in producing favourable attitudes

* The findings of Faison's study were reported earlier in Chapter Six.

toward the brand advertised. Second, the study suggests a mediating effect by message variation on the persuasive impact of source credibility.

It must be noted that the study constitutes an intriguing possible application of attribution theory to advertising situations. However, it has created considerable controversy among researchers.

Burnkrant [32] focused his criticism on Settle and Golden's basic assumption that their experimental stimulus would evoke a causal inference process. In this regard, he noted:-

"The first problem concerns their (ie. Settle and Golden's) failure to measure the attributions made by the subjects or to provide other validating evidence to support their contention that their treatments manipulated these attributions. The obtained dependent measures (ie. predicted ratings of expectancy values) were assumed to be the result of attributions, however, were not verified by any direct measurement." [33]

In this context, Settle and Golden's failure to assess directly the first and most important relationship in their attributional analysis represents a major drawback in their study. Thus, regardless of the confidence in claims or total expectancy scores, there is no explicit evidence to support an attributional interpretation of the results. Therefore, their interpretation of the results remains highly speculative and, in the final analysis, equivocal.

Also, Settle and Golden's study has attracted sharp criticism from Hansen and Scott [34]. They criticised it from two separate stand points: conceptual and methodological. From the conceptual stand point, Hansen and Scott addressed themselves to two general problem areas: the first is that Settle and Golden combined two

basic types of attribution paradigms,* "the other person," and "the object" paradigms, without making the combination explicit. This occurred in their treatment of source credibility. Hansen and Scott pointed out that "Investigation of source credibility implies the "other person" attribution framework which postulates how an individual ascribes or attributes property X to person Y. That is, given an opinion or attitude expressed by another person, how does an observer determine whether the act (stated attitude) was caused by the other person's true beliefs or by some situational constraints (eg. lack of choice, payment or reward, etc)?" In this sense, the other person attribution paradigm describes the process by which one person judges the trustworthiness (or the validity) of an act as an indicator of the other person's true feelings and dispositions.

Hansen and Scott suggested that, in judging the credibility of source in advertising, two distinct attributional processes would take place: an "other person" process followed by an "object" process. Accordingly, "the statement by Settle and Golden that a message "may be due to (1) the actual characteristics of the object or (2) the desire to sell" should be amended to read that the message may be due to (1) the source's true beliefs about the object or (2) variable situational contingencies such as the desire to sell the product." [35]

In Hansen and Scott's terms, "the statement requires a leap of faith, as it implies that the communicator has perfect expertise or knowledge and that his true beliefs can be accepted as fact."

* Both paradigms will be discussed later in the next section.

The second conceptual problem stated by Hansen and Scott concerns the failure of Settle and Golden to realise the situations under which attributions are made. In this regard, Hansen and Scott criticised Settle and Golden's interpretation of the "covariance principle" of attribution theory. As postulated by this theory, the covariance principle "refers to observations of the same cause-effect couplet over time, contexts, etc, not to observations across cause-effect couplets." Hansen and Scott argued that because Settle and Golden allowed one single observation of the experimental stimulus, the covariance principle which they used in their analysis was not the appropriate attributional mechanism to be used. Instead, Kelley's configuration principles^{*1} (ie. discounting and augmentation) were argued to be more relevant. According to attribution theory, "The discounting principle is appropriate where there are several factors present which could cause the effect: the role of a given cause in producing an effect is discounted if other plausible causes are also present. The augmentation principle is applicable if there are inhibitory factors present: if for a given effect both a plausible inhibitory cause and a plausible facilitative cause in producing the effect will be judged greater than if it alone were present as a plausible cause for the effect." [36] Thus, "a careful reading of relevant literature indicates a substantial discrepancy between attribution theory as set forth in social psychological research and that described by Settle and Golden."^{*2} [37]

*1 Kelley's configuration principles were discussed earlier.

*2 A comprehensive discussion on attribution theory was conducted in Section One.

From the methodological stand point, Hansen and Scott criticised the use of booklets of advertisements for five different products as an appropriate experimental manipulation to evoke attribution.

In discussing this experimental treatment, Hansen and Scott stated:-

"One is led to expect a test between an advertisement for a brand that claims superiority on all attributes and an advertisement for the same brand that does not claim superiority on all characteristics. In the experiment, however, subjects were asked to read five advertisements for five different products (not five brands of the same product)." [38]

However, in a rejoinder, Golden [39] asserted that:-

"The analysis for H_1 was performed by booklet, not advertisement. In our design, as the number of consistent advertisements increases, the number of claims for superiority increases. Thus, as the number of inconsistent advertisements in a booklet increases, the covariance with advertisements in the respondents' environment increases. Using this expanded concept of "covariance," one would predict that an inconsistent advertisement would produce higher confidence in the claims it asserts than would a consistent advertisement. Naturally, therefore, the greater the number of such inconsistent advertisements in a booklet, the greater the expected average confidence scores for claims made by the booklets' advertisements." [40]

A final criticism was levelled by Hansen and Scott concerning Settle and Golden's second hypothesis which stated:-

"product claims that vary over product characteristics will result in higher total expectancy values than will claims which do not vary over characteristics."

Hansen and Scott indicated that because the totals from the high and low consistency treatments are almost equal, the authors (ie. Settle and Golden) state that "the increase in confidence obtained by disclaiming two of the five product features did exactly compensate for the loss of expectancy value resulting from the two features disclaimed." However, Hansen and Scott surveyed the same data presented by Settle and Golden for their conclusion and found "decidedly mixed results."

Therefore, generalisations from Settle and Golden's study to broader populations of consumers or products are subject to the usual limitations and must be made with caution.

In another study, Smith and Hunt [41] argued that "the conceptual foundation for the study conducted by Settle and Golden was Kelley's conceptualisation of the general causal inference process. However, it appears that a more specific attribution model, correspondence theory* is better suited to the varied-nonvaried product claim research paradigm."

* The correspondence theory as developed by Jones and Davis was discussed earlier in this chapter.

In their study, Smith and Hunt tried to answer three questions regarding attribution theory's application to promotional situations, including advertising. These questions are: "(1) are attributions evoked by consumers? (2) what model best explains their behaviour? (3) can they increase the perceived source credibility?"

Armed with the basic notions of the correspondence theory as developed by Jones and Davis, Smith and Hunt developed their own model called "a product claim attribution model," as a more valid attributional approach to predict the mediating effect of message variation on the perceived source credibility.

According to the model, in an advertising situation the message represents the observed behaviour of the communicator (or the source) and the consumers may attribute certain dispositions to the source, depending on message content. In this context, a varied product claim message should possess low prior probability because it has not been commonly used, and appears to be contrary to sales goals. Thus, exposure to such a stimulus (ie. varied message) will probably evoke product attributions, because the source (or the communicator) is engaging in unusual and novel behaviour by disclaiming superiority on some product characteristics. Here, according to the model, the consumer's claim attributions should lead to correspondence. As a result, the message claim is more likely to be attributed to the actual disposition of the source of the message, such as truthfulness or honesty. Thus, if a dispositional attribution results from the varied product claim message, and if the disposition that is revealed by the consumer's attribution process is the truthfulness of the source, then the perceived credibility of the source should be high.

On the other hand, a nonvaried product claim message should possess high prior probability because consumers expect this type

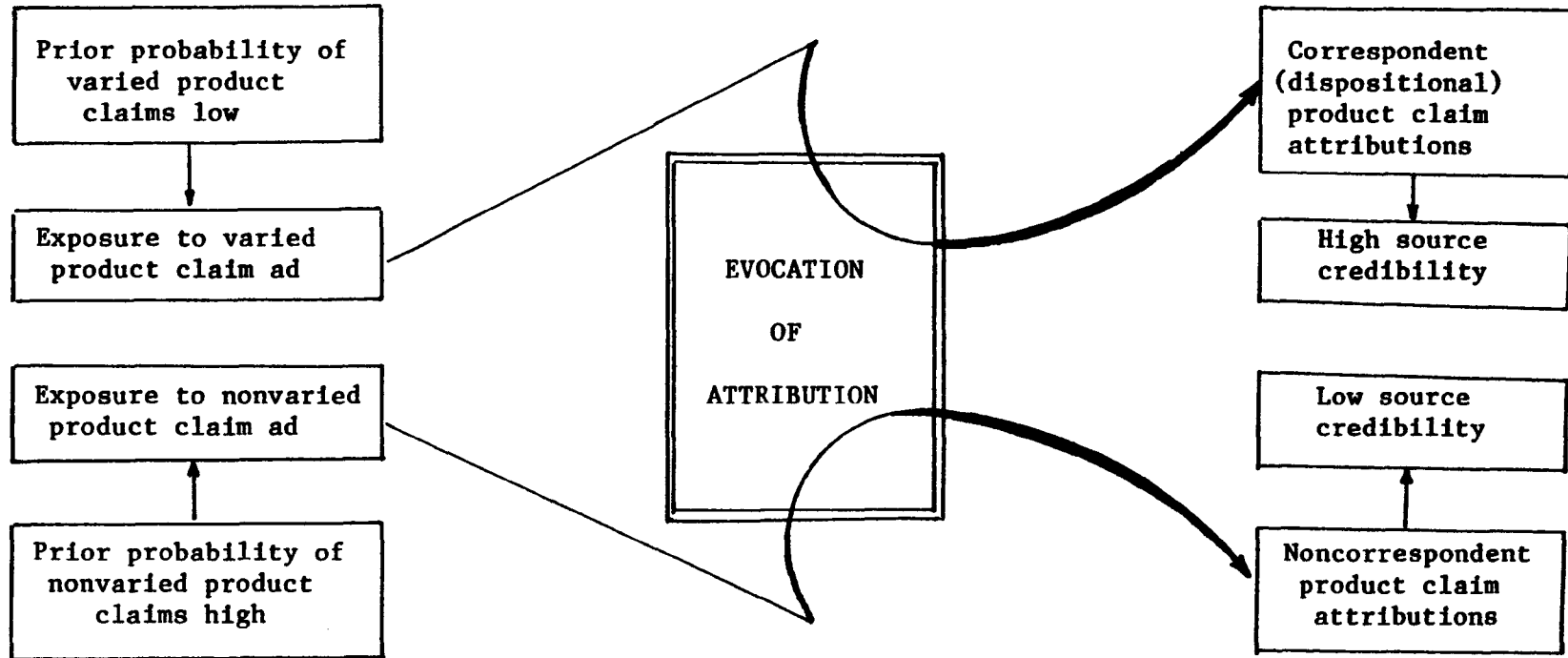
of message in an advertising situation. Therefore, the message would be unlikely to generate correspondent claim attributions, as they are so commonly used. Because of the message's lack of novelty, consumers would not be likely to infer much about the source except that, like most advertisers, there is a desire to promote and sell their products being advertised. Since a nonvaried claim message is expected, resulting attributions will be noncorrespondent and hence, no dispositional information about the source is revealed. As a result, consumers are likely to assign causation for the message to external factors such as the desire to sell the product. Finally, as the dispositional attribution of truthfulness was not inferred, there is no reason for consumers to assign high credibility to the source. Thus, perceived truthfulness should be lower for consumers exposed to the nonvaried as compared to the varied product claim.

Figure (7-2) illustrates the basic assumptions of the "product claim attribution model" which represents an integration of correspondence theory and the varied-nonvaried product claim paradigm.

After they presented their model (the product claim attribution), Smith and Hunt attempted to test the linkages of their model. Specifically, they tried to answer three questions regarding attribution theory's application to marketing: (1) are attributions evoked by consumers? (2) what model best explains their behaviour? (3) can they increase perceived source credibility? Of particular interest is the third question, because it addresses the assumed linkage between variation in the message structure and perceived source credibility.

In a field experimental setting (a booth in a shopping centre mall), 220 subjects were informed that they would be given information on a new product and then asked to fill out a questionnaire. Subjects were then randomly allotted to one of

Figure (7-2): Product claim attribution model



740

Source: Adapted from product claim attribution model of Smith and Hunt, p151.

four experimental treatment groups, and were given a booklet that contained instructions, a one-page print advertisement, and a questionnaire. The advertisements were black and white professionally produced advertisements for two products (television and house paint) which were "about to be introduced in the market." The advertisement for each product was presented to the subjects in two versions: the first (varied) claimed superiority for the advertised brand on three important characteristics (importance was determined in a pretest), but disclaimed superiority on two relatively unimportant characteristics. The second (nonvaried) stated that the advertised brand was superior to the comparison brand on all five characteristics.

After exposure to the promotional message, each respondent was asked to fill out a questionnaire designed to provide data on the subjects' information-processing techniques.

The results of the study supported two important contentions:-

- (1) That low prior probability or novelty and unfamiliarity are potent generators of attributional processes. Accordingly, this result was taken as evidence that causal inference processes are evoked by consumers to interpret promotional messages.
- (2) The potential for varied claim messages to generate greater perceived source credibility than nonvaried product claim counterparts, due to the operation of causal inference processes. This result seems to demonstrate cogently the applicability of correspondence theory to the varied-nonvaried product claim paradigm. "The fact that correspondence accounted for 32 percent of the variation in truthfulness scores indicates that correspondence can

be an important component of source credibility." [42]

The most important finding is that "subjects in the varied product claim treatment group assigned relatively more causation for message claims to dispositional properties of the source. Importantly, message content was used to infer internal characteristics of the source. The variation in truthfulness scores demonstrates that the effect of these correspondent attributions comes in the form of greater source credibility." This finding provides direct support for Smith and Hunt's fourth hypothesis.

At the end of their study, Smith and Hunt concluded that:-

"It would appear that significant increases in source credibility could result from providing consumers with a more objective description of a product's characteristics ... Presenting consumers with a reasonable basis to have more faith in the business community could be an important long-run effect of varied product claim advertisements." [43]

From our point of view, the results obtained by Smith and Hunt seem to demonstrate cogently the applicability of correspondent attribution theory to the varied-nonvaried product claim paradigm. That is, consumers seem to attribute internal or external causes to the product claims based on the degree to which the claim (or the effect) is perceived as common or uncommon. Moreover, the study provides a direct support to the hypothesised interaction between message variation and source credibility. However, the researchers did not go beyond this relationship. There is an assumed subsequent relationship between source credibility and persuasion. Unfortunately, this relationship was neither conceptualised nor tested by the researchers.

On the other hand, the data used in the analysis were collected using an experimental research design. Accordingly, the interpretation of the results should be tempered with a consideration of the external validity of the study. In this regard, the researchers acknowledge that "there is always the possibility that individuals participating in the experiment do not take the task seriously and/or do not process the advertisement in a "normal" manner. These possibilities are usually accentuated to the extent that respondents guess the true nature of the study, or believe the situation to be contrived or artificial." [44]

Overall, in the light of the above review of the two studies by Settle and Golden and Smith and Hunt, it could be noted that the two studies have some aspects in common. For instance, in their conceptualisation of the mediating effect of message variation on source credibility, the researchers depended on the attributional analysis. Moreover, they began their conceptualisations with varied and nonvaried product claim messages and ended with their effects on the perception of source credibility. However, both studies have failed to show how credibility is related to attitude change (or persuasion). That is, the two studies were not able to predict or test the interactive persuasive effect of message variation and source credibility.

Also, in both studies, the researchers employed similar manipulation of message variation. Varied product claim messages were manipulated by claiming superiority for the advertised brand on three important characteristics, but disclaiming superiority on two relatively unimportant characteristics. The nonvaried product claims promoted the brand as superior on all five characteristics.

However, there is a major difference between the two studies regarding the theoretical explanation of how their results were

reached. The study by Settle and Golden was based on "the covariance principle" of attribution theory (although Hansen and Scott suggested the inadequacy of the covariance principle as an operative mechanism in the single observation situation wherein Settle and Golden undertook their study). On the other hand, the study by Smith and Hunt used correspondence theory to conceptualise the mediating effect of message variation on perceived source credibility.

However, the two studies by Settle and Golden and Smith and Hunt can be criticised from four major stand points:-

- (1) The findings obtained by each of the two studies have not been replicated by any further research. This replication is a necessary condition to the generality (or external validity) of these findings.
- (2) The two studies have failed to integrate the refutation notion in their manipulation of the message variation concept.* The inclusion of the refutation in the context of the variation in the message structure may generate another type of attribution and may lead to different conclusions regarding the mediating effect of message variation on the perception of source credibility.
- (3) Both studies have failed to examine the hypothesised subsequent relationship between the source credibility inferred from the message variation and persuasion, ie. the interactive persuasive effect of message

* In both studies, message variation has been manipulated by using a one-sided (as a nonvaried) message, or a two-sided (as a varied) message.

variation and source credibility. This constitutes a major drawback in the conceptualisation of the two studies.

From our discussion of the attributional models, it appears that the attribution process has a cognitive dimension. Specifically, it seems to result in a formed belief. In this regard, Kelley [45] noted that "attribution has to do with the processes by which man knows his world and, more importantly, knows that he knows, that is, has a sense that his beliefs and judgments are veridical." Fishbein [46] has stated that "... a belief about an object may be defined as the probability or improbability that a particular relationship exists between the object, concept, or goal." It follows that attribution made by an observer is expected to manifest itself in belief in what he observed (ie. the communicator's behaviour).

In Fishbein's terminology, the stimulus (or object) attribution suggests a high probability that the information presented in the context of the persuasive message is related to the position advocated by the communicator.

"In general, the stronger the stimulus attribution, the stronger the belief formed. In situations where the consumer is unsure about the correct attribution, either because of the perceived lack of covariance between cause(s) and effect(s), or some idiosyncratic attribution style, the consumer will be unable to form a strong belief. In cases of person-perception or self-perception, the respective relevant beliefs deal with other persons (usually beliefs about personality traits or motives) or with one's own attitudes and motives." [47]

Mizerski and his associates [48] also developed a general model of the way in which causal attributions may lead to affecting attitude and in turn, behaviour. According to the model, consumers make attributions concerning incoming information about stimuli either through the full covariance approach or the application of configuration principles (ie. discounting and augmentation). Subsequently, beliefs are formed as a result of the attribution process. These beliefs have a different impact on the next behavioural stage depending on how involved the consumer is in the situation. According to the model:-

"In the high involvement condition, the beliefs are integrated into the formation of affect or attitude. Low-involvement conditions do not necessitate this step, and overt behaviour, eg. purchase, may occur before affect or attitude is formed. In either case, the consumer's resultant behaviour is itself a source of stimuli that are subject to attribution through self-perception." [49]

Thus, there is evidence to suggest that the source credibility inferred from the message variation may lead to persuasion. Therefore, one of the major concerns of the present study is to examine this evidence in terms of an interactive persuasive effect of message variation and source credibility.

- (4) Finally, neither study used an integrated attributional approach to conceptualise their hypothesised relationship between message variation and source credibility (although Smith and Hunt were more able to do so in terms of the correspondence theory). The

attributional models discussed in the previous section provide an integrated approach which can be effectively used in explaining the interaction between source credibility and message variation. Correspondence theory with its two major hypotheses (ie. uncommonality and social desirability), together with the augmentation principle, can constitute a reasonable integrated attributional approach to understand and predict the interactive persuasive effect of message variation and source credibility. Unfortunately, Settle and Golden did not mention the basic ideas of the augmentation principle, and Smith and Hunt did not use these ideas although they are akin to the concept of information value developed by Jones and Davis in their original theory of correspondence.

CONCLUSION

Having discussed the basic notions of attribution theory and the empirical research conducted within its context regarding the mediating effect of message variation in the perception of source credibility, it could be concluded that attribution theory can be effectively used in predicting the interaction between message variation and source credibility. In this regard, two distinct attributional approaches can be used: the correspondent inference approach and the augmentation approach. Because both approaches have significant implications for predicting the mediating effect of message variation in source credibility, we shall summarise the mechanism by which each of the two approaches operates to explain this effect within an advertising context:-

- (1) Using the correspondent approach, the notions of uncommonality and assumed social desirability constitute the operative mechanisms. Here, the advertised message represents the observed effect, and the consumers may attribute the message's advocacy (eg. the brand) to either the true dispositions of the source, or to his desire to sell the brand, or to achieve any personal gains (such as a Commission). In this context, if the source chose to provide unfavourable information about the brand, and his choice appeared to be voluntary, the message would be perceived as an uncommon and unique effect. Because the message contained unfavourable information which is undesirable for the source of the message (or is against his best interest), the message will be perceived as an uncommon effect, and it must reflect an underlying personal disposition of the source, or what Jones and Davis call "correspondence of inference." Thus, according to correspondence theory, high correspondence of inference tends to occur only with

certain combinations of noncommon and undesirable effects. In this case, the observer (or the consumer) finds it extremely difficult to attribute the effect (or the message) to causes other than the personal dispositions of the communicator, and he can be certain that the communicator's credibility is the characteristic which best explained the communicator's provision of the unfavourable information in his message.

Because a varied message contains supporting, as well as opposing arguments (which are undesirable for the communicator), they have not been commonly employed in an advertising context. Therefore, varied messages should possess a low prior probability. When a communicator presents his audience with a varied message, the audience will attribute the communicator's behaviour (ie. the presentation of a varied message) to the personal dispositions of the communicator, therefore a higher degree of correspondent causal attribution will be produced. Accordingly, the high correspondence condition will result in a high perceived communicator's credibility.

On the other hand, a nonvaried message contains only supporting arguments, but does not contain or mention any arguments opposed to the advocated position; therefore, it would be unlikely to generate correspondent attributions as commonly used and hence possesses high prior probability. While consumers would be likely to infer much about the source's dispositions (such as his true feelings) in the varied message situation, they would be unlikely to do so in the nonvaried message situation.

- (2) The augmentation approach developed by Kelley is also a valid operative mechanism in predicting the interaction between message variation and source credibility. By definition, the augmentation principle is applicable in those communication situations where both a plausible inhibitory cause and plausible facilitative cause in producing the effect are presented. In these situations, "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." [50]

In advertising, the augmentation principle has important implications for predicting the interaction between message variation and source credibility. In the varied message, the plausible inhibitory causes are represented by the opposing arguments, whereas the plausible facilitative causes are represented by the supporting arguments. Because both kinds of arguments are presented in the varied message, the inclusion of the opposing arguments "should in fact increase the perceived trustworthiness of the source." [51]

By contrast, a nonvaried (or one-sided) message presents only the supportive arguments to the advertised brand without mentioning or acknowledging any disadvantages of the brand. The message will therefore be less persuasive than the varied message, and this will decrease the perceived source credibility.

Finally, the empirical research conducted in this area provides supportive evidence on the applicability to advertising of the attributional notions discussed above. Specifically, it suggests that the believability of some product claims and the credibility of the source may be increased by disclaiming superiority of a

particular brand on some of its unimportant features in the context of the message claiming that brand's superiority. Although this evidence is inconclusive, and requires further research to validate it, it has important implications for advertising. Advertisers who are early adopters of the varied product claim strategy are likely to benefit most from its use. The major benefit from the practice of varying claims would be an increase in the general confidence with which the audience regarded advertisers.

Given the suggestion that this confidence (or credibility) operates more effectively when it interacts with variation in the message structure, it is therefore of particular interest to test the mediating effect of message variation on the persuasiveness of source credibility in advertising, this being one of the major purposes of the present study.

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CHAPTER EIGHT

RESEARCH DESIGN AND METHODOLOGY

CHAPTER EIGHT**RESEARCH DESIGN AND METHODOLOGY****INTRODUCTION**

This chapter discusses the design and methodology of the empirical research. The results are reported in the next chapter.

Eight aspects are discussed:-

- (1) Research objectives.
- (2) Research hypotheses.
- (3) Product choice.
- (4) Overview of the experimental design and sequence.
- (5) Part I: The preparatory stage.
- (6) Part II: The main experiment.
- (7) Sample.
- (8) Method and procedure.

(1) RESEARCH OBJECTIVES

The literature review in Chapters 5, 6 and 7 suggested that source credibility, message variation and the interaction between them are important determinants of the extent to which a persuasive message is accepted by the individual. However, the empirical research on the persuasive effects of these three variables was inconclusive. For instance, source credibility effects are not well documented, and even the conclusion that a highly credible source is more persuasive than a low credibility source still requires more empirical evidence. The evidence obtained in the fields of public opinion and other related fields (eg. propaganda) indicates that a varied message presenting opposing as well as supportive arguments is more persuasive than a nonvaried message (which presents only the supportive arguments). If we are to extend these findings to the field of advertising, an intensive empirical investigation is required.

In addition, experimental research examining the persuasive effect of the interaction between source credibility and other variables indicates that source credibility operates effectively when it interacts with other contextual variables. This evidence - although it is inconclusive - has significant implications for the development of advertising strategy. In particular, it suggests that source credibility and message variation could be important factors in determining the persuasiveness of the advertising message. Unfortunately, however, the interactive effect of these two variables has not been empirically examined in either persuasive communication or advertising research.

The general objective of the present empirical study can therefore be summarised as follows:-

To examine the persuasive effects of source credibility, message variation and the interaction

between them in an advertising context. For the purpose of the empirical study, 'persuasive effects' will be operationalised in terms of inducing:

- favourable attitudes toward a (hypothetical) advertised brand.
- positive impressions of the brand.
- intention to buy it.
- argumentation activated by these variables.

Evidence in support of these effects should have significant implications for advertising strategists.

(2) RESEARCH HYPOTHESES

The following hypotheses will be tested:-

HYPOTHESIS 1

In advertising, it is predicted that a highly credible source will induce both a more favourable attitude toward the advertised brand and the behavioural intention to buy it than will a low or medium credibility source.

The rationale for this hypothesis is that despite the extensive empirical evidence on the relationship between source credibility and persuasion, the finding that highly credible sources enhance persuasion is still inconclusive. However, the persuasive power of a highly credible source can be explained by cognitive response theory. According to this theory, a highly credible

source is more likely to inhibit counterargumentation than a low credibility source. In turn, the reduction of counterargumentation stimulates persuasion. This is unlikely to happen to the same extent with a low credible source. It would also be predicted that a medium credibility source would inhibit more counterargument than a low credible source, but not to the same extent as a high credible source. Hence the medium source would be expected to score between the low and high credibility source in inducing attitude and behavioural change.

Although the present study is not designed to be a test of the formulations of cognitive response theory, the discussion of this theory was introduced in order to provide a theoretical rationale which can explain the mechanisms underlying the predicted persuasive effect of source credibility. Measures of support and counterarguments are therefore used in the study to provide ancillary measures of the mediating mechanism of cognitive response.

Based on the same rationale, the second hypothesis can be developed as follows:-

HYPOTHESIS 2

A high level of source credibility will result in greater positive attributions about the advertised brand than will both the medium and low credibility levels. Again, the medium source will induce more favourable attributions than the low source, but less than the high.

Hypotheses 3 and 4 are as follows:-

HYPOTHESIS 3

In advertising, it is predicted that a varied (with- and without-refutation) brand claim will produce a more favourable attitude toward the advertised brand and behavioural intention to buy it than will a nonvaried claim.

HYPOTHESIS 4

In advertising, a varied (with- and without-refutation) claim will result in greater positive attributions about the advertised brand than a nonvaried claim.

The rationale underlying these two hypotheses is that the literature suggests that one of the differences between varied and nonvaried messages concerns their effects on the receiver's susceptibility to the message and in turn the impression he forms and attributions he makes about the advertised brand. A possible explanation which would account for differences in the persuasiveness of varied and nonvaried messages is that a varied message presenting the arguments for both sides (ie. supportive, as well as opposing) will be perceived by the audience as a fair, objective and unbiased message. On the other hand, a nonvaried message presenting only the arguments supporting the advocated issue (ie. the brand) may raise many doubts in the minds of the audience about the truth underlying the message and as a result may be perceived as biased and untrue.

According to this assumption, it is predicted that a varied (with- and without-refutation) message will inhibit the receiver's rehearsal of counterargumentation, and in turn, facilitate his acceptance of the message. Conversely, a nonvaried message will facilitate the receiver's rehearsal of counterargumentation, and in turn, facilitate his rejection of the message.

Hypothesis 5 could be significant to both the advertising theorist and the advertising practitioner. It states:-

HYPOTHESIS 5

In advertising, there will be a significant interaction between source credibility and message variation. Specifically:

- (a) Under the varied claim condition, it is predicted that both low and medium credibility sources will induce both a more favourable attitude toward the advertised brand and the behavioural intention to buy it than they will under the nonvaried claim condition. However, the effects will be greater for the medium credibility source.
- (b) Under the nonvaried claim condition, it is predicted that the highly credible source will induce both a more favourable attitude toward the advertised brand and the behavioural intention to buy it than will both the low and medium credibility sources.
- (c) Under the varied without-refutation condition, it is predicted that the medium credible source will induce both a more favourable attitude toward the advertised brand and the behavioural intention to buy it than it will under the varied with-refutation claim condition.
- (d) Under the varied with-refutation claim condition, it is predicted that the low credibility source will induce both a more favourable attitude toward the advertised brand and the behavioural intention to buy it than will the medium credibility source.

The rationale for these hypotheses essentially follows from the notion that varied (with- and without-refutation) claims, because they have potential to provide explicit information aiding the evaluation of the relative merits of products, should be more effective in communicating key benefits than are nonvaried claims. They will be perceived as unbiased, and will be subject to less counterargumentation. Thus, in advertising, coupling source credibility with varied product claims should augment the credibility of the source.

If a low credibility source is expected to generate more counterargumentation and less overall acceptance, it is predicted that his credibility will be enhanced when he presents a varied claim. He will therefore be expected to induce a more favourable attitude toward the advertised brand and the behavioural intention to buy it than when he presents a nonvaried claim. In this context, the variation in the message structure provides a way of determining the reliability of the credibility effects.

The augmenting effect of message variation can also be applied to the medium credibility source. When a medium credibility source presents a varied claim, it is predicted that the varied claim cues of fairness and unbiasedness will enhance the credibility cues. In this situation, the credibility of the source is enhanced by the variation in the message.

However, under the high credibility condition, there will be no significant difference between the varied without-refutation and the nonvaried claims in inducing favourable attitudes towards the advertised brand and behavioural intentions to buy it.

HYPOTHESIS 6

A varied (with- and without-refutation) claim is expected to increase the credibility of the source more than will a nonvaried claim. However, the varied with-refutation claim will enhance the credibility of the low credibility source.

This hypothesis follows from the basic notions of the correspondent attribution theory developed by Jones and Davis [1].

According to this theory, behaviour which conforms to clearly defined role requirements is perceived by the observer as uninformative about the source's personal dispositions (such as his credibility), whereas a considerable amount of information may be extracted from out-of-role behaviour. Within this context, it is predicted that a nonvaried claim will be perceived by the receivers as the normal (or common) role behaviour which is expected from advertisers. This behaviour would include attempts to sell the advertised brand by communicating only its superior attributes (or characteristics). Frequently, this expected behaviour could include exaggerated or deceptive claims to accomplish the sales goal. Therefore, assignment of causation for product claim to the source's desire to sell the advertised brand would represent noncorrespondent attributions. In this instance, no information is inferred about the source's credibility; only that he is trying to fulfil his expected role through a common advertising technique. Conversely, disclaiming superiority on a few unimportant product attributes along with claiming superiority on a greater number of important product attributes with- or without-refuting the disclaimed product attributes, is not likely to be included in the receiver's role expectations of an advertiser. Therefore, correspondent attribution concerning the advertiser's credibility will be

inferred within the context of correspondent attribution theory. The more that the advertised brand is felt to possess the characteristics on which the superiority is claimed, the higher is the perceived credibility of the source.

HYPOTHESIS 7

- (a) In advertising, it is predicted that the highly credible source will generate more support argumentation and less counterargumentation than will the low credibility source. However, there will be no significant difference in the support argumentation generated by each of the medium and high credibility sources.
- (b) In advertising, it is predicted that the varied without-refutation claim will generate more support argumentation and less counterargumentation than will the nonvaried claim. However, the support argumentation generated by the nonvaried claim will be more than that generated by the varied with-refutation claim.
- (c) Over the passage of time, the varied with-refutation claim will induce more support argumentation than will the varied without-refutation claim.

Subhypothesis (a) is based on the notions of cognitive response theory discussed in the rationale for the first hypothesis. Specifically, a highly credible source is more likely to inhibit counterargumentation, while a low credibility source facilitates the generation of the counterargumentation. Also, one of the basic tenets of communication theory upon which earlier models of information acceptance are based is the notion that cues

contained within the incoming information are of primary importance in shaping attitudinal acceptance [2].

If, as seems the case, individuals such as consumers tend to resist influence attempts and critically analyse the information, questions about the nature of these cognitive evaluation processes become most important. The receiver can be expected to attempt to evaluate the incoming information according to his cognitive structure. These cognitive activities thus generate spontaneous critical thoughts, which some research suggests are the actual primary mediators of message acceptance.

A counterargumentation is activated when incoming information is found to be discrepant with the receiver's cognitive system. The spontaneous thought to be activated is assumed to neutralise or counter the message evidence. For example, in response to the advertisement's claim that a pocket calculator offers "a variety of functions," the receiver may immediately think of a counter-argument (eg. he has no need for many functions to be performed by the pocket calculator).

On the other hand, it is reasonable to assume that support argumentation may also be important. By evaluating incoming information, the receiver may activate thoughts indicating that congruent associations have been discovered or that the message argument is supported by the receiver's cognitive system.

In the example above, the thought generated might be: "the variety of functions performed by the pocket calculator is indeed important to me." Generation of such thoughts would indicate that the message has a chance of acceptance and would immunise the receiver's attitude.

The literature suggests that varied (particularly without-refutation) message claims are more persuasive than nonvaried message claims, when potential counterarguments are available to the message recipients. The varied without-refutation claim may be particularly effective because its appeal should offset the negative reactions of message recipients. Thus, the positive effects from the use of a varied without-refutation claim may increase the message recipients' opportunity to generate support arguments. Because the varied with-refutation claim underlies a defensive mechanism (by refuting the negative reactions), it is expected to induce more support arguments about the message advocacy with the passage of time than is the varied without-refutation claim.

HYPOTHESIS 8

With the passage of time, there will be a change in the initial attitude produced by the low credibility source.

This hypothesis is based on the discounting cue hypothesis developed by Hovland and his associates [3]. According to that hypothesis, it is predicted that an increase in the initial attitude produced by a low credibility source over the passage of time will occur.

The discounting cue hypothesis underlies two key processes - discounting and dissociation - both of which are required to produce the delayed increase (or what is called the sleeper effect). Discounting refers to the suppression of the initial attitude. Dissociation refers to the spontaneous breakdown of the pairing between the message advocacy and the discounting cue. According to the discounting cue hypothesis, the message and discounting cue are supposed to become spontaneously dissociated over time, and attitudes after dissociation are supposed to

depend on whatever residual impact the message has at the time of dissociation. A sleeper effect is supposed to result whenever the residual impact that the message has at the time of dissociation is greater than the initial impact it has when it is paired with the discounting cue.

The purpose of the present study is not to test the discounting cue hypothesis but to report the extent to which the sleeper effect exists. The discounting cue hypothesis is used to provide a theoretical explanation of the results.

(3) PRODUCT CHOICE

The product used in the experiment was a pocket calculator. This was chosen because it was familiar to students who comprised the experimental subjects. It also possessed a range of product attributes that could be validly manipulated to fit the experimental design. Also, its attributes are fairly generalisable to many other products whose ultimate target market is students. Finally, the pocket calculator represents one of the most important advances in the consumer-electronics field.

(4) OVERVIEW OF THE EXPERIMENTAL DESIGN AND SEQUENCE

4.1 DESIGN

To carry out the empirical study, a 3 x 3 factorial experimental research design was used at each of three separate stages. The independent variables were: source credibility with three levels (high, medium and low) and message variation with three levels (no variation, variation without-refutation and variation with-

refutation). Subjects were randomly allocated to each of the resulting nine cells (see Section 7 below).

Table 1 below summarises the experimental design layout:

Table 1: Experimental Design

Message Variation	Source Credibility		
	High	Medium	Low
No variation	Group 1	G4	G7
Variation without-refutation	G2	G5	G8
Variation with-refutation	G3	G6	G9

4.2 EXPERIMENTAL SEQUENCE

Basically, the research design comprised two major parts: a preparatory stage and the main experiment. The latter was conducted by means of two experimental stages (sessions) separated by a period of approximately 10 days. The experimental sequence can be outlined as follows:

Part 1: The preparatory stage. This consisted of the following steps:

- (a) Defining the research variables

- (b) Constructing the independent variables
 - source credibility
 - message variation
- (c) Constructing the dependent variable measures

Part 2 The main experiment. This was conducted through two sequential stages, in the following order:

Stage 1:

(a) Precommunication measures

- 1 - initial attitude toward pocket calculator
- 2 - subjects' overall impressions of a pocket calculator
- 3 - subjects' intentions to buy a pocket calculator



(Introduction of source credibility)



- 4 - measure of perceived source credibility



(Introduction of message variation)



(b) Post communication measures

- 5 - attitude toward the experimental brand (the ATAI-C pocket calculator)
- 6 - subjects' overall impression of the experimental brand (the ATAI-C pocket calculator)
- 7 - subjects' intentions to buy the ATAI-C pocket calculator
- 8 - subjects' attributions (or feelings) about the ATAI-C pocket calculator
- 9 - repeat measure of perceived source credibility
- 10 - argumentation activated by the subjects about the ATAI-C pocket calculator.

Stage 2:

The repetition of the experiment after ten days. In this stage, all the measures collected in the first stage were collected again, but without presenting the experimental manipulations of source credibility and message variation.

Each of the above parts will be discussed in the following pages:

(5) PART I: THE PREPARATORY STAGE**5.1 THE RESEARCH VARIABLES**

Two independent variables and two dependent variables of major importance were used in the present study. In addition, one ancillary independent variable and four ancillary dependent variables were also measured. The major independent variables were source credibility and message variation. The ancillary independent variable was existing ownership of a pocket calculator. The major dependent variables were attitude toward the product (a pocket calculator) and behavioural intention to buy it. The ancillary dependent variables were impression of the product, attribution about it, perceived source credibility (the source credibility manipulation check) and finally, argumentation.

5.2 CONSTRUCTING THE INDEPENDENT VARIABLES**5.2.1 SOURCE CREDIBILITY****(a) DIMENSIONS**

Source credibility was measured on the dimensions of status, expertise and knowledge, and on a general evaluative dimension

(this included trustworthiness, reputation, sincerity, safety and reliability). However, the credibility of the source was manipulated on the dimension of specific expertise, as defined by knowledge about computers and knowledge about calculators. This dimension of specific expertise was chosen for two reasons: first, it was suggested as important by the literature review, as discussed extensively in Chapter 5. Second, it is an important criterion in judging the credibility of a source presenting a durable product such as pocket calculators.

Depending upon the treatment to which subjects were assigned, each of the three versions of the advertising testimonial was attributed to a high, medium or low credibility source introduced before exposure of the subjects to the advertising testimonial.

(b) EXPERIMENTAL DESCRIPTIONS

In each condition, Mr Paul Ross was introduced as the source. In the highly credible condition, Mr Ross was described as having a higher degree in Computer Science. He had extensive experience of several leading brands of computing systems and was a recognised expert whose advice was widely sought by business and educational institutions. His credibility was further enhanced by his being described as a strong supporter of consumer protection in relation to microcomputing systems. In addition, he was referred to as a distinguished author of several computer packages and software for teaching purposes. He was also presented as having recently addressed many consumer groups on the advantages and disadvantages of the use of microcomputers. His occupation was reported as being a professor of computer science in a well-known university (see Appendix A for the source manipulations and Appendix B for the experimental questionnaire).

The medium credibility source had a higher degree in Business Administration, and extensive experience in advertising development research. He was a recognised expert whose advice

was widely sought by business and advertising institutions. He was strongly in favour of the use of up-to-date advertising techniques. In addition, Mr Ross was described as a distinguished author of several books on advertising procedures and research. His credibility was further enhanced by his having addressed many business groups on the advantages and disadvantages of certain advertising procedures. He was presented as a professor of advertising research in a well-known university.

The low credibility source had a higher degree in French Language. He had extensive experience in the study and analysis of Medieval French Literature, and was a recognised expert whose advice was widely sought by educational institutions. He was a strong supporter of educational approaches that combined the study of French Language with that of French history. He was also a distinguished author of several books on French Language and history who had recently addressed a conference on recent developments in the study of Medieval French Literature. Finally, Mr Ross was described as a professor in a well-known university.

(c) SOURCE CREDIBILITY PRETEST

The source credibility induction was extensively pretested. Three separate pretests were conducted to establish its validity.

In the first pretest, the high and medium credibility sources described in the previous section were introduced as representing high and low credibility sources respectively. A biography of Mr Ross in the two credibility conditions was accompanied by 14 seven-point semantic differential scales measuring different dimensions of source credibility. The scales were: low status - high status; untrustworthy - trustworthy; unattractive - attractive; insincere - sincere; not expert - expert; bad - good;

subjects were given the biography of the high credible source, and the other half the biography of the low credible source. Subjects rated the source on the 17 scales (ie. the original 14 plus the additional three).

The results of the second pretest are given in Table 2, Appendix C. They indicated that there were significant differences in the perceived credibility of the two sources on the three additional scales. The high credible source was perceived to be more knowledgeable about computers ($\bar{x} = 6.78$) than was the low source ($\bar{x} = 3.78$). Also, the high credibility source was perceived as being more knowledgeable about calculators ($\bar{x} = 6.06$) than was the low source ($\bar{x} = 4.34$). As intended, the low credibility source was perceived as being more knowledgeable about his specific area of expertise, advertising ($\bar{x} = 6.60$) than was the high source ($\bar{x} = 4.10$). There were also no significant differences between the two sources on the original 14 rating scales.

These results indicated that the manipulation of source credibility was successful. The sources varied on the intended expertise dimensions, and were similar on all others except expertise in their own fields. The second pretest also showed that the manipulations were methodologically valid, since similar results on the neutral statements were obtained from two samples which were independent of each other and tested on different occasions (see Tables 1 and 2, Appendix C). However, a potential weakness still existed in the manipulations in that the low source had medium rather than low expertise on the manipulated variables. For this reason a third pretest was carried out, in which an attempt was made to extend the manipulation to provide high, medium and low credibility sources. A third source was therefore constructed.

All sources were then rated on the 17 scales used in the second pretest, plus an additional one to test the specific knowledge-

ability of the low source: "not knowledgeable about French literature - knowledgeable about French literature."

The sample of this pretest consisted of 60 undergraduate students from the University of Strathclyde who were studying in the main library of the university. To enhance the methodological validity of the manipulations, the procedure in the third pretest was changed to allow each person to rate all three sources, thereby removing between subject variance by making each person act as his own control. The order of presentation of the sources was controlled by dividing the sample of 60 into six groups of 10 students each, each group rating the sources in a pre-determined order as shown in Table 2.

Table 2: The Third Pretest Design

<u>Order of Presentation</u>	The pretest groups					
	G ₁	G ₂	G ₃	G ₄	G ₅	G ₆
Rated first	H	H	M	M	L	L
Rated second	M	L	H	L	H	M
Rated third	L	M	L	H	M	H

The results of the third pretest of source credibility induction are shown in the following table:

Table 3: Mean and Standard Deviation of the 18 Rating Scales of Source Credibility (the three credibility conditions)

(N = 60)

No	Source credibility rating scales	Mean (\bar{x})			Standard Deviation (SD)		
		H ¹	M ²	L ³	H	M	L
1	Low status - high status	6.35	6.22	6.20	0.70	0.69	0.96
2	Untrustworthy - trustworthy	5.72	4.88	5.55	0.95	1.37	0.99
3	Unattractive - attractive	4.43	4.18	4.22	1.26	1.30	1.36
4	Not knowledgeable about computers - knowledgeable about computers	6.92	4.40	2.37*	0.28	1.62	1.26
5	Insincere - sincere	5.42	4.38	5.23	1.00	1.34	1.30
6	Not expert - expert	6.67	6.12	6.35	0.60	1.37	1.29
7	Not knowledgeable about French literature - knowledgeable about French literature	2.10	2.35	6.92*	1.21	1.44	0.28
8	Bad - good	4.93	4.57	5.00	1.05	1.09	1.02
9	Dangerous - safe	4.93	4.25	5.17	1.31	1.34	1.34
10	Disreputable - reputable	6.12	5.55	6.17	1.02	1.35	0.93
11	Aggressive - not aggressive	4.07	3.18	4.62	1.46	1.38	1.44
12	Not knowledgeable about advertising - knowledgeable about advertising	4.02	6.72	3.07*	1.85	0.84	1.74
13	Untrained - trained	6.63	6.37	6.12	0.60	0.95	1.40
14	Not experienced - experienced	6.44	6.38	6.27	1.12	1.02	1.05
15	Not knowledgeable about calculators - knowledgeable about calculators	6.43	4.05	2.20*	0.59	1.71	1.21
16	Not dynamic - dynamic	5.12	5.75	4.57	1.33	1.13	1.74
17	Not knowledgeable - knowledgeable	6.18	5.90	6.33	1.10	1.16	0.85
18	Unreliable - reliable	5.43	5.03	5.53	1.24	1.06	1.04

- (1) High credibility source
 (2) Medium credibility source
 (3) Low credibility source

* P < 0.001

As Table 3 indicates, subjects who received the biography of the source under the high credibility condition perceived the source to be significantly more knowledgeable about computers and knowledgeable about calculators than those who received the biography of the medium credibility source, who in turn scored higher than the low credibility source on the same rating scales. The mean scores on the knowledge about computers rating scale were 6.92, 4.40 and 2.37 for the high, medium and low sources respectively. The equivalent scores for the knowledge about calculators rating scale were 6.47, 4.05 and 2.20 respectively. There were also no significant differences between the three sources on all other dimensions except for the specific factual dimensions relevant to the medium and low sources, ie. knowledge about advertising and French literature respectively. The manipulations were therefore achieved as intended: the high, medium and low credible sources varied in expertise in the product field to be advertised (calculators) and a related field (computers) but not on any other dimension with which expertise might be confounded. These source credibility scales were repeated at the beginning of the main experiment, thus checking (and validating) the manipulation of this variable.

It should be noted that the manipulation of this experimental variable is independent of the methodology used. In other words, the differences obtained between the high, medium and low sources reflect the genuine manipulation of the variable and are not a function of the data collection techniques used. The reason for this is that two different methodologies were used in the three pretests (Table 4). The first, used during pretests 1 and 2, replicated judgments from independent samples; the second, in pretest 3, had each person acting as his own control. Examination of key credibility scales used in all three pretests (Table 5) indicates that the scores for these measures remained constant across both types of methodology, thus indicating their stability across different data collection methods. This provides an extremely powerful test and validation of the experimental manipulation of this variable.

Table 4: Methodologies Used in Pretesting Source Credibility

	Methodology I				Methodology II					
	First Pretest		Second Pretest		Third Pretest					
	Group 1	Group 2	Group 1	Group 2	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6
Source credibility conditions (high, medium and low)	High	Low	High	Low	High	High	Medium	Medium	Low	Low
					Medium	Low	High	Low	High	Medium
					Low	Medium	Low	High	Medium	High

Table 5: Mean Scores and Standard Deviations of the Key Credibility Scales**Across the Three Separate Pretests***

No	Credibility Rating Scales	High Credibility Source			Low Credibility Source		
		Pretest 1	Pretest 2	Pretest 3	Pretest 1	Pretest 2	Pretest 3
1	Low status - high status	6.30 (0.68)	6.08 (0.69)	6.35 (0.70)	6.30 (0.64)	6.20 (0.72)	6.20 (0.96)
2	Unattractive - attractive	4.23 (0.96)	4.22 (1.01)	4.43 (1.26)	4.35 (1.04)	4.42 (1.08)	4.22 (1.36)
3	Unreliable - reliable	5.70 (0.93)	5.68 (0.90)	5.43 (1.24)	5.40 (1.18)	5.20 (1.13)	5.53 (1.04)
4	Bad - good	4.95 (0.97)	5.02 (0.91)	4.93 (1.05)	4.95 (1.02)	5.02 (1.03)	5.00 (1.02)
5	Untrained - trained	6.30 (1.42)	6.66 (0.65)	6.63 (0.60)	6.60 (1.02)	6.48 (1.04)	6.12 (1.40)
6	Not experienced - experienced	6.68 (0.61)	6.40 (0.96)	6.33 (1.12)	6.58 (1.02)	6.44 (0.90)	6.27 (1.05)

* Based on the complete analysis of the three pretests given in Appendix C.

5.2.2 MESSAGE VARIATION

The message variation variable was operationalised to fit three experimental conditions: no variation, variation without-refutation, and variation with-refutation.

The experimental stimulus in the three conditions consisted of a testimonial advertisement for a pocket calculator that was about to be introduced to the market. The calculator had a fictitious brand name (ATAI-C) to eliminate any effect of past use or experience with the product.

Three experimental conditions of message variation were constructed. (Full details are given in Appendix C.) In the no variation condition, the message was a one-sided one claiming the superiority of the advertised brand (ie. ATAI-C) over other competing brands (without mentioning their names) on five characteristics of a pocket calculator. Three of these characteristics were pre-defined as important. The importance of these characteristics was measured in a pretest.

The sample for the pretest consisted of 40 undergraduate students at the University of Strathclyde. They were given a list of ten characteristics of pocket calculators and asked to evaluate each of these on a five-point scale varying from 'very important (+5)' to 'not very important (+1)'. The most important characteristics were the variety of functions ($\bar{x} = 4.50$), ease of use ($\bar{x} = 4.40$) and the clarity of display ($\bar{x} = 4.25$). The least important characteristics were the length of guarantee ($\bar{x} = 3.10$) and the flatness of screen ($\bar{x} = 2.55$). (Full details of the pretesting of this variable are given in Appendix C.)

In the variation without-refutation condition, the message was a two-sided one which contained the same five characteristics of the pocket calculator mentioned in the no variation version. However, in this condition, superiority was claimed on the three most important characteristics, and disclaimed on the two least important ones.

In the variation with-refutation condition, the message was identical to that used in the variation without-refutation condition with the exception that it refuted the two least important characteristics on which the superiority of the advertised brand was disclaimed.

(6) PART II: THE MAIN EXPERIMENT

For the purpose of the present study, the impact of source credibility and message variation on the subjects' attitude toward the advertised brand (ie. ATAI-C) and the subjects' behavioural intention to buy it was assessed. In addition, the following ancillary dependent variables were also measured: the perceived source credibility (in addition to the source credibility manipulation check), impression of the advertised brand, attribution about the brand and argumentation. As already outlined above, each of these variables was measured at two separate stages. These stages are described in detail below:

6.1 STAGE 1*

6.1.1 PRECOMMUNICATION MEASURES

Initially, four measures were collected prior to subjects being exposed to the communication: the initial attitude toward pocket calculators in general (Measure 1),** the impression of pocket

* See the overview of experimental sequence given in Section 4.2 earlier.

** The measure numbers refer to those listed in Section 4.2.

calculators (Measure 2), the behavioural intention to buy a pocket calculator (Measure 3), and the perception of source credibility (Measure 4). The measures are discussed in detail below:

(a) INITIAL ATTITUDE TOWARD POCKET CALCULATORS

The first set of measures taken concerned the subjects' initial attitude toward a pocket calculator.

Attitudes were measured on seven seven-point semantic differential scales. (The same scales were also used in measuring postcommunication attitudes toward the advertised brand). The seven scales featured pairs of adjectives derived from actual pocket calculator advertisements. These purpose-designed scales were considered more appropriate for the evaluation of a pocket calculator than theoretical factors such as those identified by Osgood, Suci, and Tannenbaum [4]. Despite this, they show substantial similarity to Osgood et al's evaluative dimension [5].

The responses on each attitude scale were summed to form an overall score for each subject. Scales were scored by allocating +7 to the more favourable end of the dimension and +1 to the least favourable. The adjective pairs used were:

Easy to use - difficult to use

Convenient - inconvenient

Good - bad

Useful - not useful

Educational - not educational

Reliable - unreliable

Clear - not clear

The subjects' overall attitude towards pocket calculators could thus range from 7 to 49. The higher the score, the more favourable the subject's attitude towards the product. Coefficient alpha was computed to test the internal consistency of the attitude measure [6]. The attitude items were found to be highly reliable ($\alpha = .83$).

(b) SUBJECTS' OVERALL IMPRESSIONS OF A POCKET CALCULATOR

Next, the subjects' overall impressions of a pocket calculator were measured by means of a single seven-point scale ranging from '1' (for 'disliking a pocket calculator') to '7' (for 'liking of a pocket calculator'). The higher the score, the more favourable the subject's impression of a pocket calculator. This scale was used to provide an additional measure of the attitude variable to enhance construct validity.

(c) SUBJECTS' INTENTIONS TO BUY A POCKET CALCULATOR

After the impression data were collected, the subjects' behavioural intentions to buy a pocket calculator were recorded. They were measured through a five-point verbal behavioural intention scale commonly used in market research [7]. This standard scale varied slightly according to whether subjects already owned a pocket calculator. Those owning a calculator were asked to indicate whether they would buy another pocket calculator in the next six months in place of the one they already owned. Subjects were required to choose one of the following five statements:-

- I will certainly buy another pocket calculator in the next six months, in place of the one I already own.

- I might buy another pocket calculator in the next six months, in place of the one I already own.
- I am not sure whether I will buy another pocket calculator in the next six months, in place of the one I already own.
- I don't think I will buy another pocket calculator in the next six months, in place of the one I already own.
- I certainly will not buy another pocket calculator in the next six months, in place of the one I already own.

The scale was scored from 1 to 5, with 5 representing certain purchase.

For subjects who did not already own a pocket calculator, the same scale was used to measure intention to buy except that the word "another" and the statement "in place of the one I already own" were omitted from each of the scale phrases.

(d) PERCEIVED SOURCE CREDIBILITY

The final part of the initial measures consisted of recording subjects' perceptions of source credibility. These were used as a manipulation check for the source induction.

These measures were taken immediately after subjects received the biography of the appropriate source. The source was rated on the same 18 seven-point semantic differential scales as were used in the third pretest.

6.1.2 POSTCOMMUNICATION MEASURES

After being introduced to the appropriate source, subjects were asked to imagine themselves in a buying situation. They were then exposed to one of the three advertisements featuring the testimonial from Mr Paul Ross. Their attitudes toward the ATAI-C pocket calculator were then measured on the same seven semantic differential scales used for the initial attitude measurement (Measure 5).^{*} The initial seven-point scale measuring the subject's overall impression of the brand was then repeated (Measure 6), followed by the repetition of the behavioural intention measures (Measure 7).

These three measures were followed by the attribution measure (Measure 8). Subjects were asked to indicate whether they felt that the ATAI-C pocket calculator actually possessed the features stated in the testimonial. Attributions were measured by responses on a seven-point semantic differential scale ranging from 'definitely yes' (scored as 7) to 'definitely no' (scored as 1).

The rationale for this measure derived from the correspondent attribution theory developed by Jones and Davis [8]. This predicts that correspondent attribution occurs when causation for the event is assigned to dispositional properties of the actor (such as his honesty) rather than to external or situational causes (such as his desire to induce the receiver's behaviour in the intended manner). In advertising, assignment of causation for message claims to the advertiser's (ie. the source's) "desire to sell the advertised brand," would represent noncorrespondent attribution. In this case, the only causation assigned is that an advertiser wants to fulfil his expected role through common

* The measure numbers refer to those listed in Section 4.2.

advertising techniques (ie. claiming brand superiority). Conversely, assignment of causation for the advertising claim to the "actual characteristics of the brand" would represent correspondent attribution. The former case reflects low perceived source credibility, whereas the latter case reflects high perceived source credibility.

The final two measures consisted of re-measuring subjects' perceptions of source credibility (Measure 9),* and recording argumentation generated about the brand (Measure 10). The purpose of repeating the first measure was to examine whether the variation in the message structure had any moderating effect on the subjects' perception of source credibility. The same source credibility measures were used as before.

The final measure taken was the argumentation generated about the brand. The generation of support and counterargumentation was measured in order to try to examine their moderating role in the independent variables' effects on the dependent variables. Specifically, the support and counterargumentation measures were used to assess the mediating effect of the generated arguments (or thoughts) in facilitating or inhibiting the receiver's acceptance of the message (ie. ATAI-C). This measure was also used as an indicator of the immunity induced by the message.

To achieve this measurement, subjects were asked to list all the thoughts that came to mind about the ATAI-C pocket calculator. Three minutes were given to the subjects to complete this task. They were then asked to categorise their thoughts as either favourable, neutral or opposed to the advertised brand (ATAI-C). Another three minutes were given to the subjects to complete this task.

* See measure numbers in Section 4.2.

In carrying out the latter task, subjects were instructed to label a favourable thought by placing a "+" sign next to it. An unfavourable (or opposed) thought had a "-" sign placed next to it. A blank box signified a neutral thought.

For each subject, thoughts labelled as favourable to the advertised brand were summed to form a support argumentation score. Those categorised as unfavourable to the advertised brand were summed to yield a counterargument score. This procedure is similar to that used by Sternthal and his associates [9]. A higher support argumentation score represents a high level of immunisation. By contrast, a higher counterargumentation score represents a low level of immunisation effects.

6.2 STAGE 2: THE REPETITION OF EXPERIMENT AFTER TEN DAYS

The dependent variable measures were repeated after 10 days on the same sample. The main purpose of the repeated measurement was to assess the persistence of the effects induced by the major independent variables (ie. source credibility and message variation) and to examine the sleeper effect of the credibility of the source over the passage of time. The measures were collected without repetition of the experimental material.

(7) SAMPLE

For the purpose of the present experiment, a convenience sample of 165 students at the University of Strathclyde was used. One hundred and thirty-nine of the subjects were members of the second year Marketing II undergraduate class; the remainder were postgraduate MSc students undertaking a course in Market Research. The subjects' ages ranged from 18 to 30 with an

average age of 20 years. Sixty-five of the subjects (33 percent) were males and 100 of them (67 percent) were females. The use of a convenience sample composed of students is justifiable because college-educated consumers represent a realistic target market for pocket calculators, especially in the early stages of the product life cycle (PLC).

The researcher - with the help of his supervisor - made all the administrative arrangements with the course instructor that were required to conduct the experimental sessions. All the subjects were selected on the basis of their attendance at a normal scheduled class. The subjects participated on a voluntary basis.

(8) METHOD AND PROCEDURE

8.1 PREPARATION OF THE TEST BOOKLET

All of the experimental conditions were presented in a test booklet (Appendix B). Nine versions were constructed, one for each experimental condition. Each contained a short questionnaire measuring the major dependent variables.

8.2 ASSIGNMENT TO EXPERIMENTAL SESSIONS

After the test booklet was prepared, revised thoroughly and typed, the booklets were categorised in sets of nine, each set containing one booklet for each experimental condition. All nine experimental conditions were then run simultaneously by handing out the sets systematically. This procedure ensured that subjects were randomly assigned to treatment conditions.

It was intended that each cell in the factorial design should contain an equal number of subjects. This goal was not achieved absolutely because some of the subjects who attended the first session did not attend the second session. The final cell frequencies varied from 15 to 18 subjects per treatment condition. This resulted in an overall sample size of 150 experimental subjects (ie. a 10% drop out over the 10 day period). This overall sample is statistically acceptable to provide an adequate F-test of the major hypotheses, despite the minor fluctuations between cell sizes [10]. The final effective sample size per cell is given in Table 6.

Table 6: The Final Effective Sample Size Per Cell

Message Variation	Source Credibility		
	High	Medium	Low
No variation	N = 18	N = 17	N = 17
Variation without-refutation	N = 16	N = 17	N = 17
Variation with-refutation	N = 16	N = 15	N = 17
The total effective sample size			150

8.3 EXPERIMENTAL SESSIONS

Two experimental sessions were conducted with a ten-day interval in between. Each of the sessions lasted twenty minutes.

The first session was held during regularly scheduled classes on February 25 and March 6, 1986. At the beginning of the meeting, the class lecturer announced that an academic experiment was being conducted and the subjects were told that they were about to participate in a consumer opinion survey. The subjects were asked to participate on a voluntary basis.

After the announcement, experimental instructions were given to the subjects. These were given both verbally and in writing on the blackboard. The instructions were as follows:-

- (1) Please read the content of the booklet to be distributed.
- (2) There are no "right" or "wrong" answers to any of the questions that you may be asked.
- (3) Please complete the booklet without the help of others involved in the study.
- (4) If you have any questions, please raise your hand and we will assist you.
- (5) Please do not turn back and look at the previous questions you have answered.

The test booklets were then distributed and the subjects were instructed to begin the task of answering.

Since the subjects were in close proximity, and each had a slightly different questionnaire, it was imperative that no discussion took place. They were therefore instructed to complete the booklet without the help of others involved in the study. All were very co-operative in this respect. After the session ended, the subjects were asked to write their names and addresses on the cover sheet of the test booklet and informed that they were to participate in a second experimental session ten days later.

After ten days, the same experimental procedure was repeated except that the test booklets did not contain the experimental conditions. The booklets were distributed, completed and collected within a period of twenty minutes. The subjects and the class lecturer were thanked for their co-operation.

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CHAPTER NINE

FINDINGS OF THE EXPERIMENTAL STUDY

CHAPTER NINE**FINDINGS OF THE EXPERIMENTAL STUDY****INTRODUCTION**

The previous chapter described the experimental design and the research methodology used to carry out the present experimental study. This chapter reports the major findings.

The experiment was conducted in two separate experimental sessions. In the first session, two sets of measures were collected: the precommunication measures and the postcommunication measures. In the second session, the postcommunication measures were repeated 10 days later. The findings of the experimental study are therefore reported separately for each session.

(1) FINDINGS OF THE FIRST SESSION

1.1 PRECOMMUNICATION - SOURCE CREDIBILITY MANIPULATION CHECK

Analysis of the subjects' responses to the source credibility rating scales initially focused on the adequacy of the experimental manipulation of source credibility. This check was taken prior to the introduction of message variation. Analysis of variance was used to analyse the effects of source credibility, message variation and their interaction. The analysis of the subjects' responses to the 18 rating scales indicated that the subjects had perceived the three sources as being significantly different on 11 of the 18 rating scales. There were no significant effects from message variation or from the interaction between message variation and source credibility. These latter findings were expected considering that the experimental conditions for message variation had not then been introduced. Table (9-1) describes these effects.

From the analysis of the data in the table, four major points can be stated:-

- (1) The three sources differed much in the expected manner in terms of specific expertise with regard to calculators, computers and French literature, as intended.
- (2) However, contrary both to what was intended and to the results of the pretesting:- the medium and high credibility sources were rated more highly on the following scales: low status - high status, untrained - trained, not experienced - experienced, not dynamic - dynamic.

Table (9-1): Main and interactive effects of source credibility and message variation on the perceived source credibility - precommunication stage

	Credibility Rating Scales	F-Ratios			Source credibility Mean scores			Significant comparisons Newman-Kauls test
		Source Credibility (SC)	Message Variation (MV)	SC X MV	Low (L)	Medium (M)	High (H)	
1	Low status - high status	4.71**	1.32	1.47	5.67	6.16	6.08	M & H > L
2	Untrustworthy - trustworthy	2.73	0.62	0.89	5.24	5.49	5.70	
3	Unattractive - attractive	4.09**	0.21	2.20	4.10	4.76	4.42	M > L
4	Not knowledgeable about computers - knowledgeable about computers	161.49***	1.52	1.01	2.49	4.51	6.68	H > M > L
5	Insincere - sincere	9.30***	0.59	0.95	4.73	4.55	5.34	H > M & L
6	Not expert - expert	2.23	0.44	0.23	6.16	6.06	6.48	
7	Not knowledgeable about French literature - knowledgeable about French literature	144.37***	0.14	0.79	6.59	2.92	2.60	L > M & H
8	Bad - good	0.23	1.12	0.32	4.78	4.82	4.78	
9	Dangerous - safe	1.21	0.36	0.59	5.02	5.02	5.30	
10	Disreputable - reputable	0.20	0.28	0.84	5.90	5.92	5.80	
11	Aggressive - not aggressive	4.68**	2.10	2.40	4.49	3.84	4.38	L & H > M
12	Not knowledgeable about advertising - knowledgeable about advertising	74.86***	0.76	1.23	3.18	6.41	4.28	M > H > L
13	Untrained - trained	6.91***	0.10	0.39	5.96	6.59	6.44	M & H > L
14	Not experienced - experienced	6.22***	0.26	1.55	5.55	6.29	6.36	H & M > L
15	Not knowledgeable about calculators - knowledgeable about calculators	66.51***	0.23	1.33	3.18	4.18	5.90	H > M > L
16	Not dynamic - dynamic	13.98***	2.69	0.13	4.16	5.41	5.14	M & H > L
17	Not knowledgeable - knowledgeable	0.75	0.29	0.18	6.10	6.02	6.26	
18	Unreliable - reliable	1.60	2.96	2.57	5.33	5.37	5.64	

* < 0.05
 ** < 0.01
 *** < 0.001

- (3) Other differences also occurred, but in relation to more idiosyncratic qualities. The medium credibility source was perceived as more aggressive and attractive. The high credibility source was seen as more sincere.

- (4) Although the means for the medium and the high credibility sources differed significantly from the mean of the low credibility on the credibility rating scales of low status - high status, unattractive - attractive, insincere - sincere, untrained - trained, not experienced - experienced and not dynamic - dynamic, the low credibility source was not perceived in a totally negative light on these scales. In fact, the low credibility source scored higher than the midpoint of these scales.

These findings clearly show that the three sources were perceived to differ on several characteristics other than those which refer to specific expertise. Thus for some reason or other (possible reasons will be discussed later), and despite the extensive pretesting, the independent experimental manipulation of the source credibility factor failed. This made the analysis of the findings much more complicated than had been anticipated. Because of the failure to maintain the independence of the source credibility factor, the results cannot be described in relation to the initial hypotheses, since these hypotheses were based on predictions referring to a factorial experimental design with independently manipulated factors. Clearly, if the design fails to manipulate one of the critical independent factors, then the testing of hypotheses formulated in relation to these factors fails by definition. For this reason, the results will be described and then summarised without reference to the hypotheses. The implications of this procedure are discussed in the final chapter.

1.2 POSTCOMMUNICATION FINDINGS

1.2.1 SUBJECTS' PERCEPTIONS OF SOURCE CREDIBILITY MODERATED BY MESSAGE VARIATION

Table (9-2) shows the findings obtained from the analyses of variance of the subjects' responses to the rating scales after the advertisement had been presented.

(a) THE MAIN EFFECTS

The main effects produced by the source credibility factor resulted in differences in the subjects' perceptions of the sources in terms of seven rating scales. The high credible source scored the highest on knowledge about computers, expertise and knowledge about calculators. The medium credible source scored the highest on the knowledge about advertising and training scales, whereas the low credibility source scored the highest on knowledge about French literature and was seen as less aggressive.

There were also main effects for message variation on the subjects' perceptions of source credibility. The varied without-refutation claim produced higher scores on the trustworthiness and expertise scales than the varied with-refutation claim. However, there were no significant differences between the nonvaried and the varied without-refutation claims.

(b) THE INTERACTIVE EFFECTS

The interactions can be displayed in two ways: by plotting the interaction mean differences (which represent the differences between the actual mean and expected mean in each cell of the

Table (9-2): Main and interactive effects of source credibility and message variation on the perceived source credibility - postcommunication stage

	Credibility Rating Scales	F-Ratios			Source credibility Mean scores			Significant comparisons Newman-Kuls test	Message Variation Mean Scores			Significant comparisons Newman-Kuls test
		Source Credibility (SC)	Message Variation (MV)	Interaction of SC X MV	Low (L)	Medium (M)	High (H)		Nonvaried Message (1)	Varied without-Refutation (2)	Varied with-Refutation (3)	
1	Low status - high status	0.54	1.00	2.55**	5.69	5.92	5.80		5.79	5.96	5.65	2 > 3
2	Untrustworthy - trustworthy	0.22	3.13*	1.90	5.18	5.06	5.18		5.29	5.30	4.81	
3	Unattractive - attractive	0.71	0.62	3.26**	4.33	4.41	4.40		4.42	4.24	4.68	
4	Not knowledgeable about computers - knowledgeable about computers	73.16***	0.20	1.06	3.24	4.41	6.38	H > M > L	4.79	4.64	4.56	2 > 3
5	Insincere - sincere	1.37	2.27	1.19	4.76	4.53	4.88		4.81	4.90	4.46	
6	Not expert - expert	7.81***	3.59*	0.72	5.25	5.73	6.30	H > L & M	5.94	5.98	5.33	
7	Not knowledgeable about French literature - knowledgeable about French literature	116.49***	2.87	0.17	6.45	3.08	2.76	L > M & H	3.71	4.32	4.35	2 > 3
8	Bad - good	0.58	0.51	1.24	4.84	4.65	4.82		4.69	4.88	4.75	
9	Dangerous - safe	0.25	0.74	1.53	4.82	4.82	4.78		4.83	4.76	4.83	
10	Disreputable - reputable	0.38	2.70	3.17*	5.39	5.43	5.22		5.38	5.44	5.00	2 > 3
11	Aggressive - not aggressive	3.48*	1.04	3.20*	4.43	3.80	4.14	L > M	4.06	4.32	4.00	
12	Not knowledgeable about advertising - knowledgeable about advertising	27.04***	0.75	1.10	3.71	5.90	3.90	H > L & M	4.67	4.30	4.48	
13	Untrained - trained	3.63*	0.55	3.22**	5.76	6.29	6.16	M > L	6.15	6.10	5.94	2 > 3
14	Not experienced - experienced	0.71	0.30	2.48*	5.73	5.76	6.02		5.83	5.94	5.73	
15	Not knowledgeable about calculators - knowledgeable about calculators	33.84***	0.29	2.02	3.49	3.82	5.58	H > L & M	4.37	4.34	4.17	
16	Not dynamic - dynamic	2.93	1.73	0.63	4.31	4.78	4.94		4.63	4.94	4.44	2 > 3
17	Not knowledgeable - knowledgeable	0.97	0.41	1.03	5.82	5.67	6.00		5.90	5.88	5.71	
18	Unreliable - reliable	0.29	1.32	2.11	5.14	4.98	5.12		5.19	5.18	4.85	

* > 0.05
 ** > 0.01
 *** > 0.001

interaction matrix), and by plotting the raw interaction means only.

The interactions shown in the main body of the text are presented in the second format (ie. plotting the raw interaction means). However, they are also presented in the first format, in Appendix D. Both diagrammatic forms were used in interpreting the findings.

The interactive effects obtained were as follows:

**(b).1 THE INTERACTIVE EFFECT ON THE PERCEIVED STATUS
OF THE SOURCE**

The interactive effects of source credibility and message variation on the source status are presented in Figure (9-1). The low credibility source was perceived as being of higher status when varied (with- and without-refutation) claims were used, whereas the high credibility source was perceived as being of higher status when nonvaried and varied without-refutation claims were used. Message variation had no clearly discernible effect on the perceived status of the medium credibility source.

**(b).2 THE INTERACTIVE EFFECT ON THE PERCEIVED ATTRACTIVENESS
OF THE SOURCE**

The interactive effect of message variation and source credibility on the perceived attractiveness of the source is presented in Figure (9-2).

The low credibility source was perceived as more attractive when a varied with-refutation claim was used. The medium credibility source was perceived as more attractive when nonvaried or varied

Figure (9-1)

Significant interaction effects of source credibility and message variation on the communicator's status

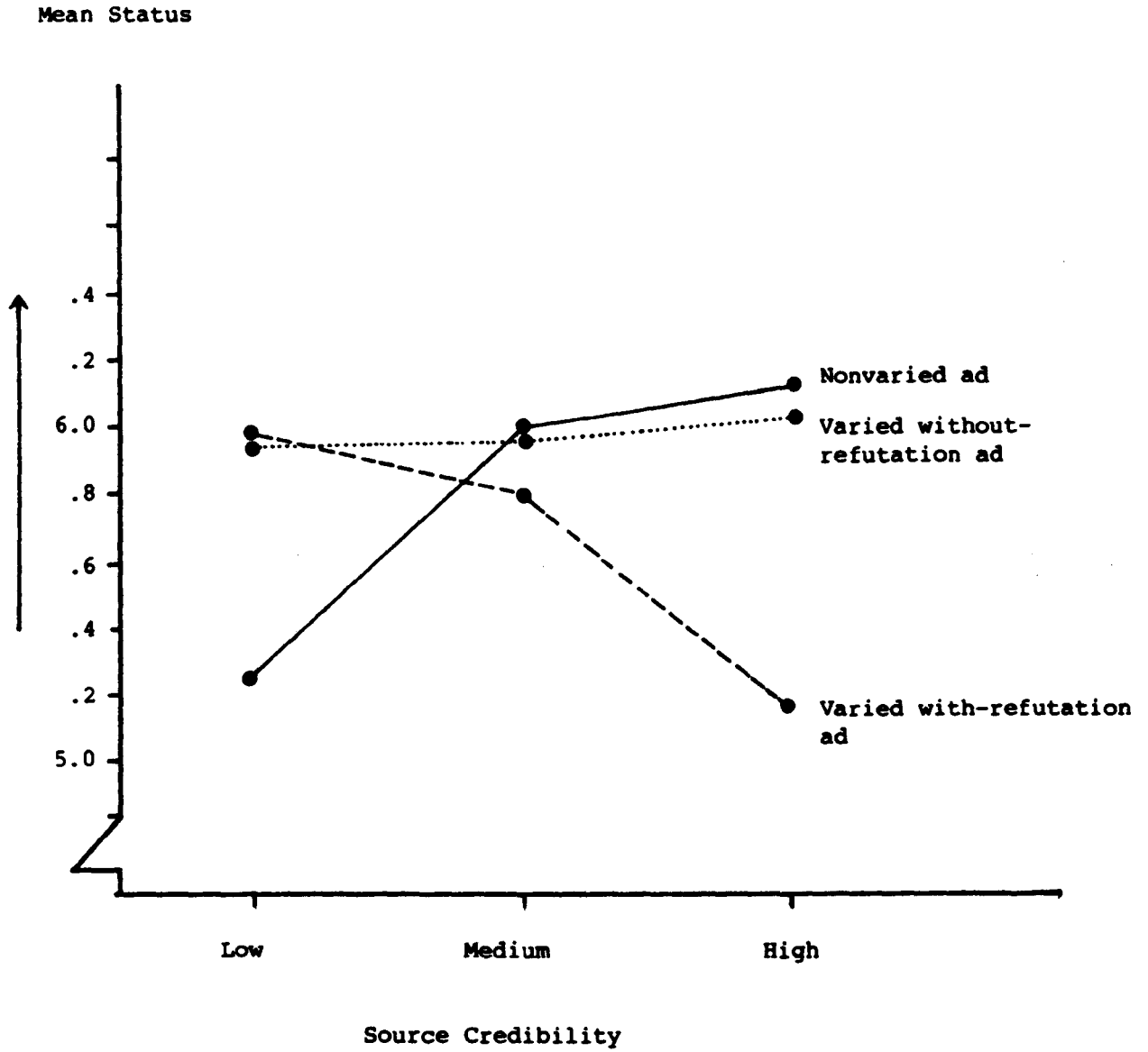
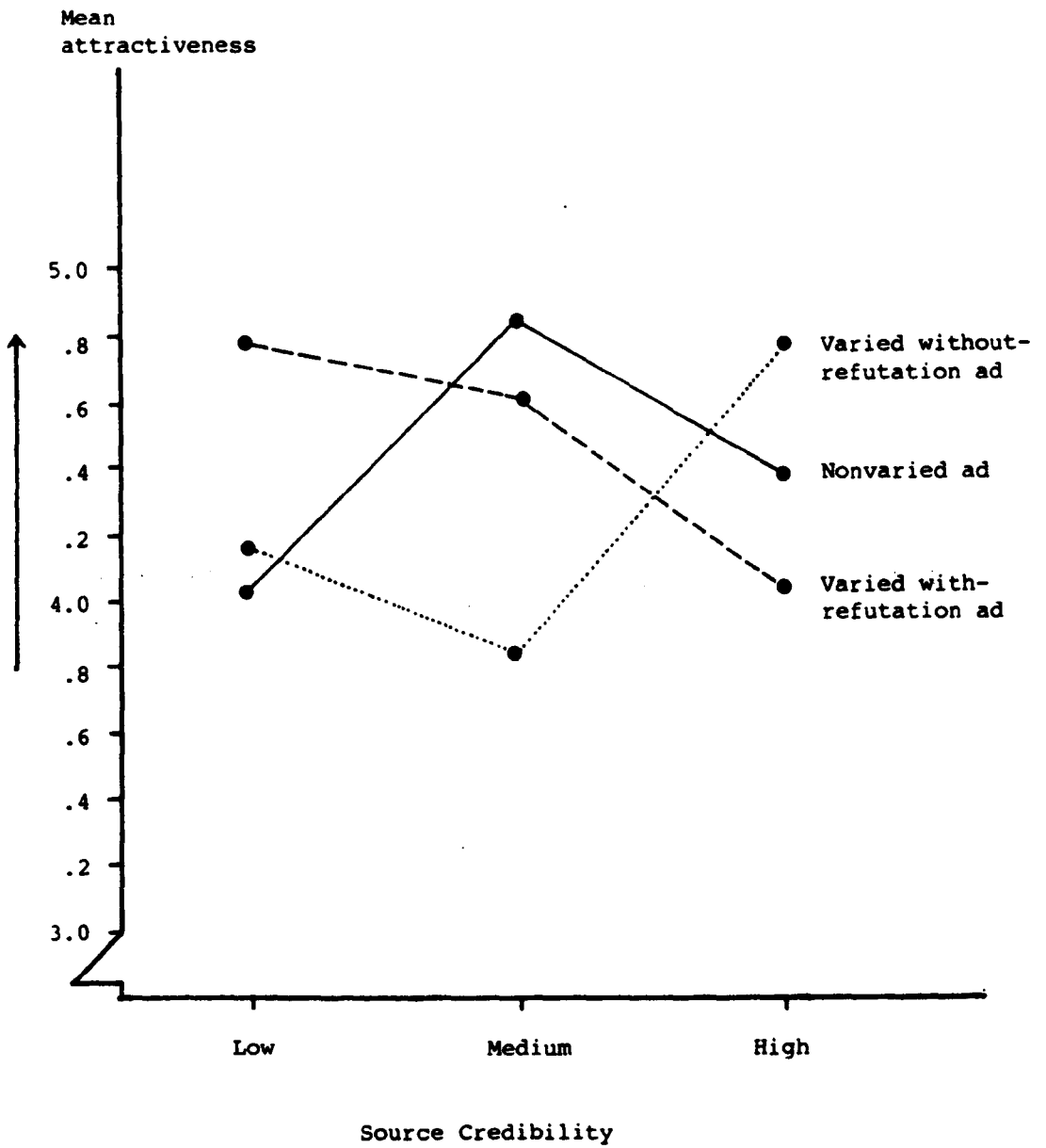


Figure (9-2)

Significant interaction effects of source credibility and message variation on the communicator's attractiveness



with-refutation claims were used. The high credibility source was perceived as being more attractive when varied without-refutation or nonvaried claims were used.

**(b).3 THE INTERACTIVE EFFECT ON THE PERCEIVED REPUTATION
OF THE SOURCE**

The interactive effect of source credibility and message variation on the perceived reputation of the source is presented in Figure (9-3).

The high and medium credibility sources were perceived as being more reputable when nonvaried or varied without-refutation claims were used. The low credibility source was perceived as being more reputable when a varied with-refutation claim was used.

**(b).4 THE INTERACTIVE EFFECT ON THE PERCEIVED AGGRESSIVENESS
OF THE SOURCE**

The interaction effect of source credibility and message variation on the perceived aggressiveness of the source is presented in Figure (9-4).

The high credibility source was perceived as less aggressive when a varied without-refutation claim was used. Message variation had little or no effect on the perceived aggressiveness of the other sources.

**(b).5 THE INTERACTIVE EFFECT ON THE PERCEIVED TRAINING
OF THE SOURCE**

The significant interactive effect of source credibility and message variation on the perceived training of the source is presented in Figure (9-5).

Figure (9-3)

Significant interaction effects of source credibility and message variation on the communicator's reputation

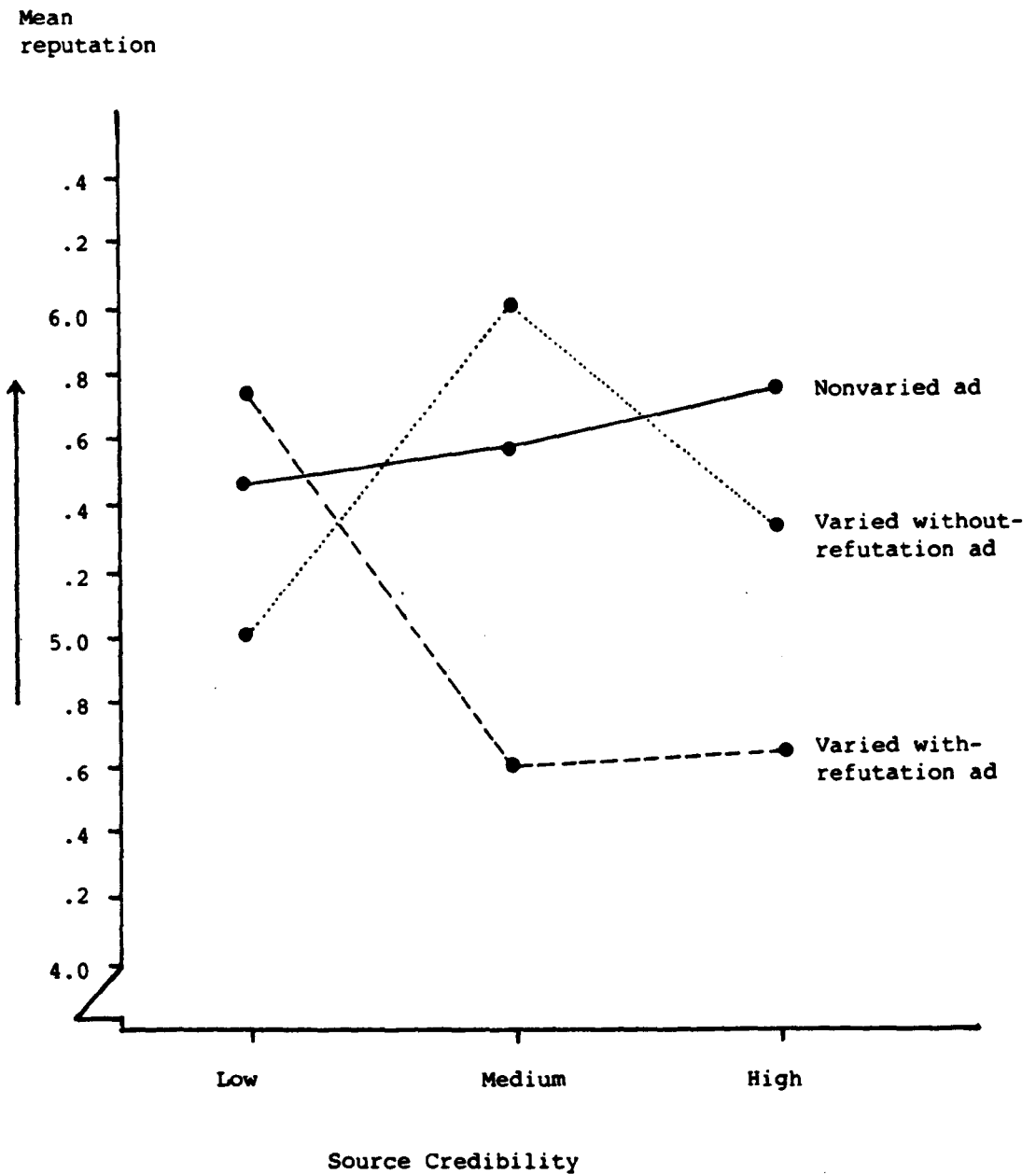


Figure (9-4)

Significant interaction effects of source credibility and message variation on the communicator's aggressiveness

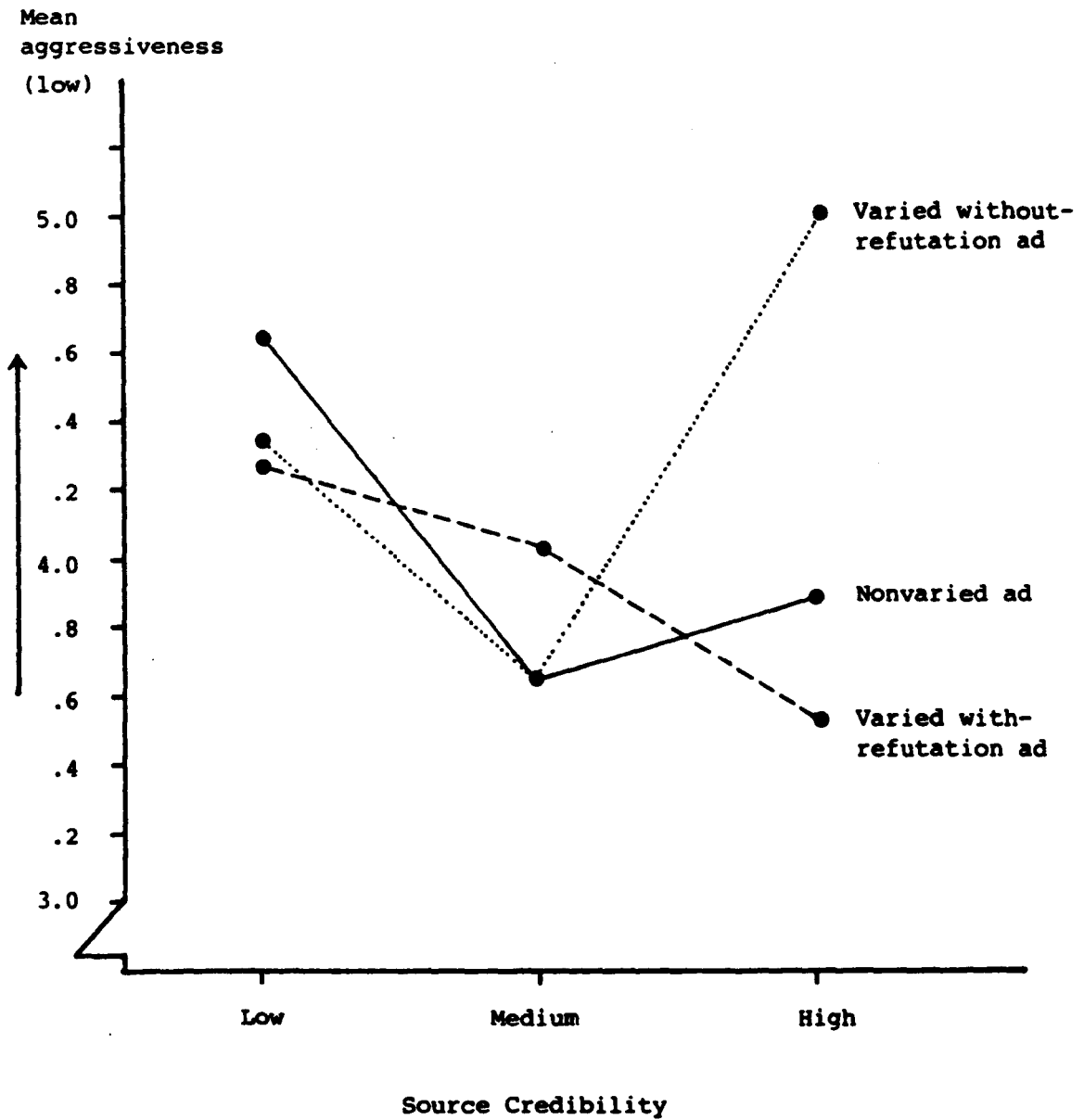
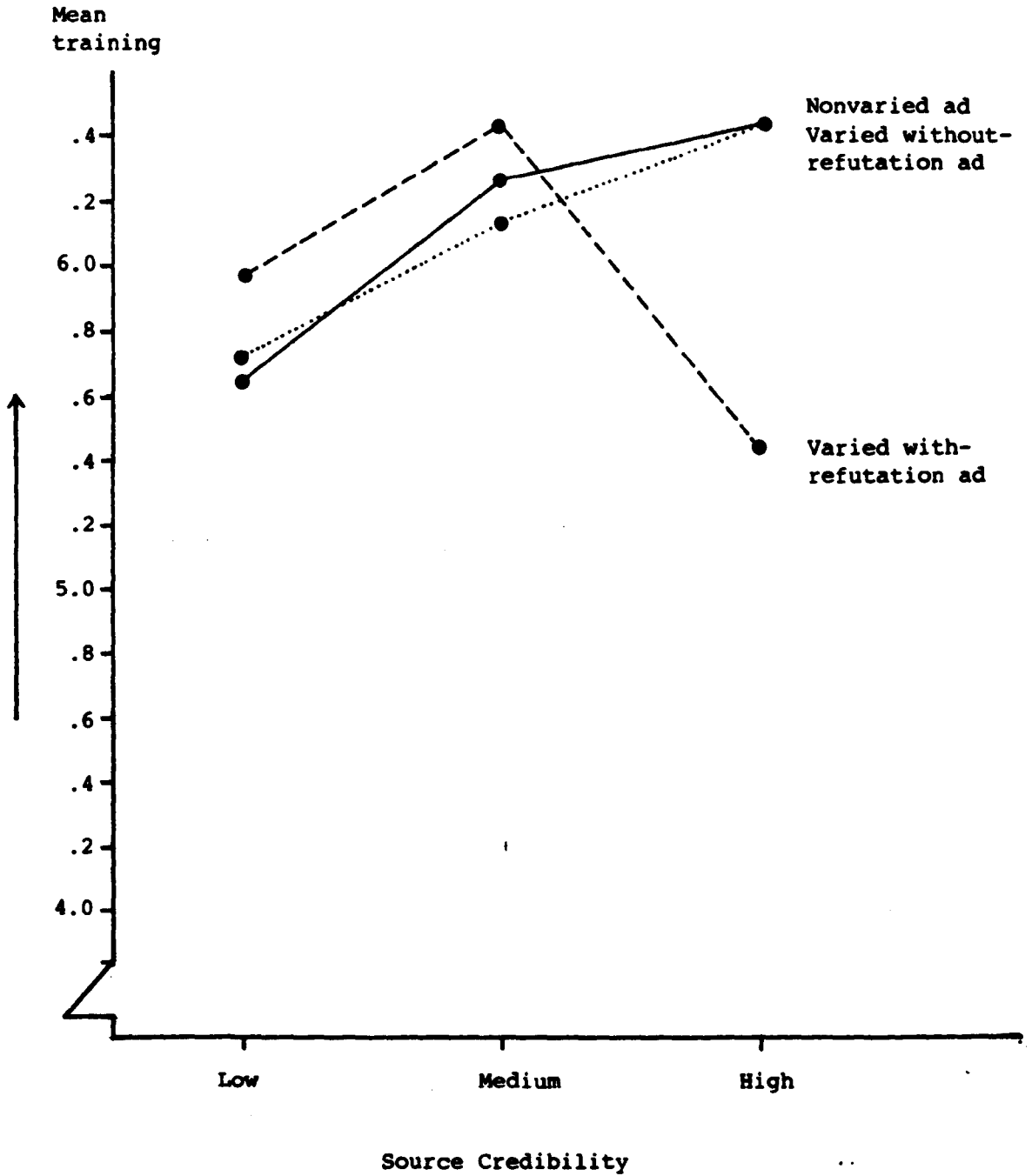


Figure (9-5)

Significant interaction effects of source credibility and message variation on the communicator's training



The high credibility source was perceived as more highly trained when nonvaried and varied without-refutation claims were used. The low and medium credibility sources were perceived as more highly trained when varied with-refutation claims were used.

(b).6 THE INTERACTIVE EFFECT ON THE PERCEIVED EXPERIENCE OF THE SOURCE

The final interactive effect of source credibility and message variation was on the perceived experience of the source. This effect is presented in Figure (9-6).

The low credibility source was perceived as more experienced when a varied with-refutation claim was used. The high credibility source was perceived as being more experienced when nonvaried or varied without-refutation claims were used.

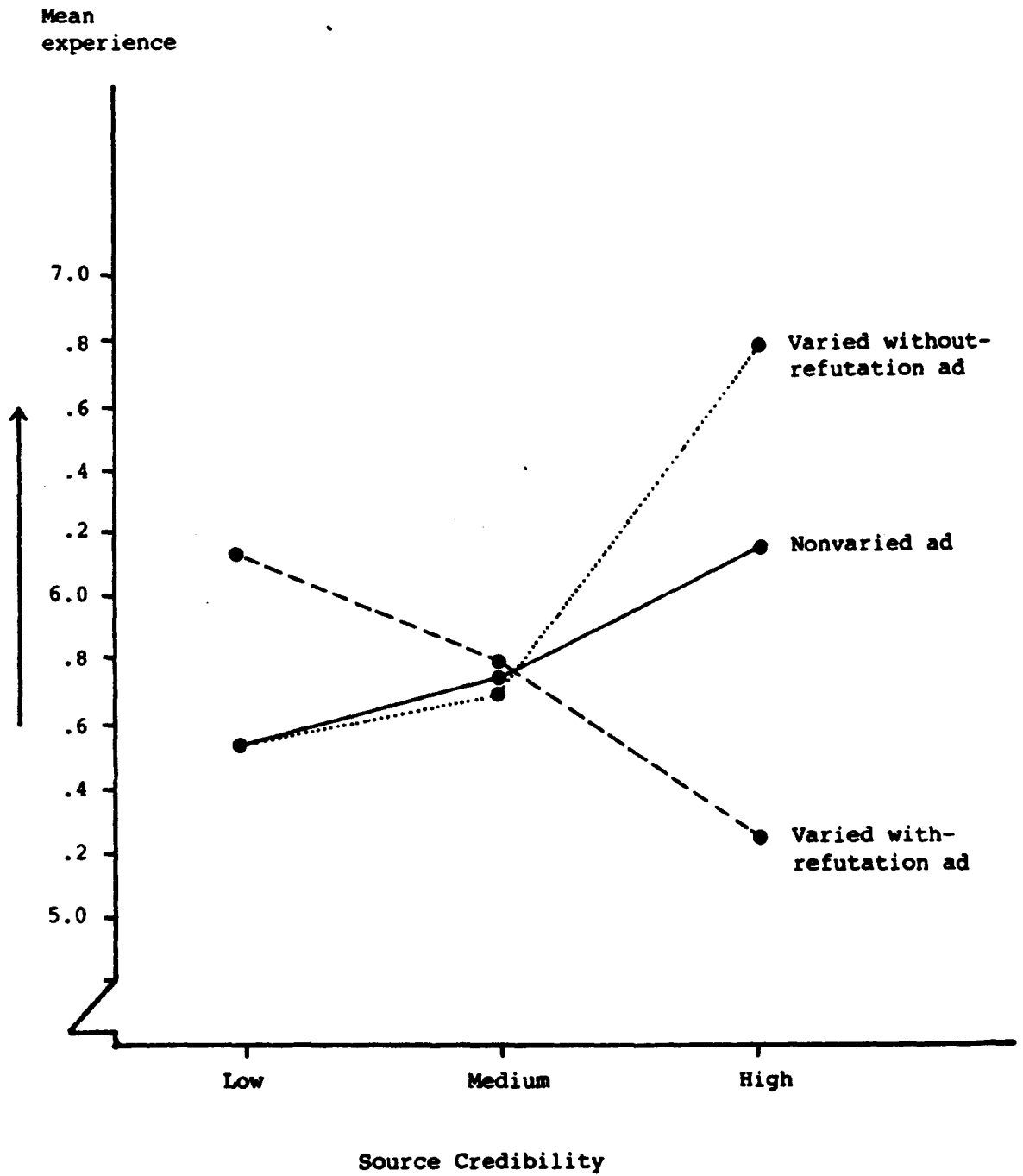
SUMMARY OF THE INTERACTIVE EFFECTS

The major findings from the analysis of interactions can be summarised as follows:-

- (1) The high credibility source tended to be perceived as more credible in terms of status, attractiveness, reputation, training and experience when nonvaried and varied without-refutation claims were used.
- (2) The low credibility source tended to be perceived as more credible in terms of status, attractiveness, reputation and experience when a varied with-refutation claim was used.
- (3) Message variation had no clearly discernible differential effect on the subjects' ratings of the medium credibility source.

Figure (9-6)

Significant interaction effects of source credibility and message variation on the communicator's experience



1.2.2 EFFECTS ON ATTITUDES TOWARD ATAI-C AND INTENTIONS TO BUY IT

The effects on the attitudes toward the advertised brand (ie. ATAI-C) and intentions to buy it took two patterns: main and interactive effects. Each of these will be reported separately as follows:

1.2.2.1 THE MAIN EFFECTS

The main effects on attitudes toward ATAI-C and intentions to buy it are given in Table (9-3).

The nonvaried and varied without-refutation claims induced more favourable attitudes towards the ATAI-C. Despite this, the varied with-refutation claim induced more intentions to buy compared with the nonvaried claim. Table (9-3) also shows that intentions to buy the ATAI-C were higher among subjects who did not own a pocket calculator. However, both of these main effects were involved in interactions and must therefore be interpreted with care.

1.2.2.2 THE INTERACTIVE EFFECTS

(a) THE INTERACTIVE EFFECTS ON ATTITUDE TOWARD ATAI-C

There was a significant source credibility x message variation interaction in the attitudes towards the ATAI-C ($F = 2.83$, d.f. = 4,136, $p < 0.05$). The means of this interaction are given in Table 7 in Appendix D and are presented diagrammatically in Figure (9-7).

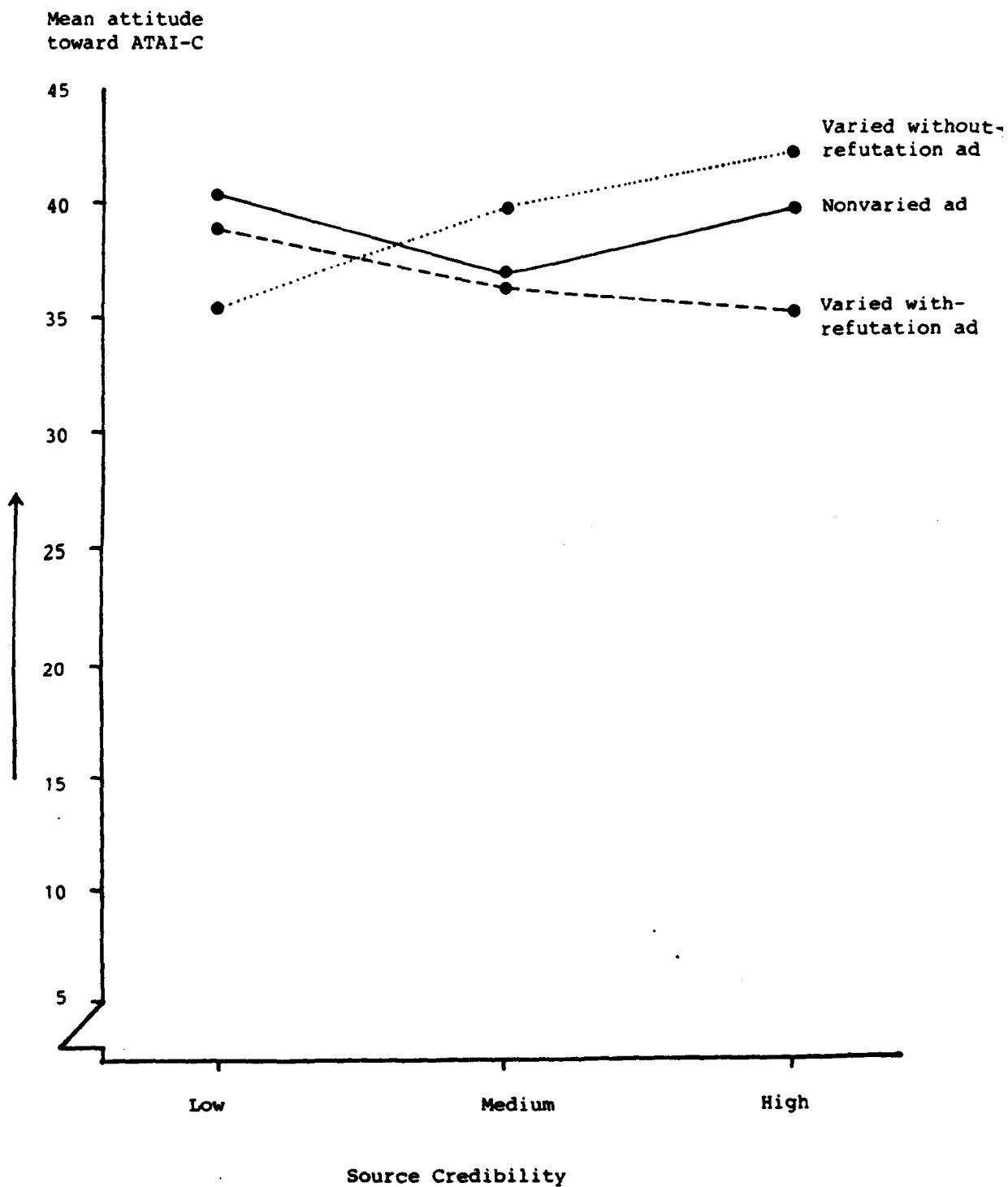
Table (9-3): Main effects of source credibility, message variation and the ownership of a pocket calculator on attitudes toward ATAI-C and intentions to buy it

Dependent Variables	F-Ratios			(SC) Mean Scores			Significant comparisons Newman-Kauls	(MVM) Mean Scores			Significant comparisons Newman-Kauls	(OWNPC) Mean Scores		Significant comparisons Newman-Kauls
	Source Credibility (SC)	Message Variation (MV)	Ownership of pocket calculator	Low (L)	Medium (M)	High (H)		(1)	(2)	(3)		(1) Own	(2) Not Own	
Attitude toward the ATAI-C	0.14	3.27*	0.11	38.08	38.39	38.70		39.40	38.98	36.67	1 & 2 > 3	38.45	37.14	
Intention to buy the ATAI-C	0.56	4.12**	7.93***	2.31	2.45	2.40		2.20	2.38	2.58	3 > 1	3.42	3.71	2 > 1

* Significant at 0.05 level
 ** Significant at 0.01 level
 *** Significant at 0.001 level

Figure (9-7)

Significant interaction effects of source credibility and message variation on the subjects' attitude toward ATAI-C



The figure depicts that the low credibility source induced more favourable attitudes toward ATAI-C when nonvaried or varied with-refutation claims were used. The high credibility source induced more favourable attitudes toward ATAI-C when varied without-refutation or nonvaried claims were used.

(b) THE INTERACTIVE EFFECT ON THE INTENTIONS TO BUY ATAI-C

There was a significant interaction between message variation and the ownership of a pocket calculator ($F = 3.68$, d.f. = 2,136, $p < 0.05$). The means of this interaction are given in Table 8 in Appendix D.

The interactive effect is presented diagrammatically in Figure (9-8).

As Figure (9-8) depicts, nonvaried and varied with-refutation claims induced more intentions to buy ATAI-C in the nonownership situation. However, there was no discernible differential effect exerted by the three types of claims in the ownership situation.

1.2.3 THE EFFECTS ON THE IMPRESSION OF ATAI-C

There were no significant main effects for source credibility and message variation on the impression of ATAI-C. However, there was a significant interaction between the two variables ($F = 2.92$, d.f. = 4,136, $p < 0.05$). The means for this interaction are given in Table 9 in Appendix D, and the interaction is presented diagrammatically in Figure (9-9).

As the figure depicts, the low and medium credibility sources induced more favourable impressions of ATAI-C when a varied with-refutation claim was used. The high credibility source

Figure (9-8)

Significant interaction effects of message variation and ownership of a pocket calculator on the subjects' intention to buy ATAI-C

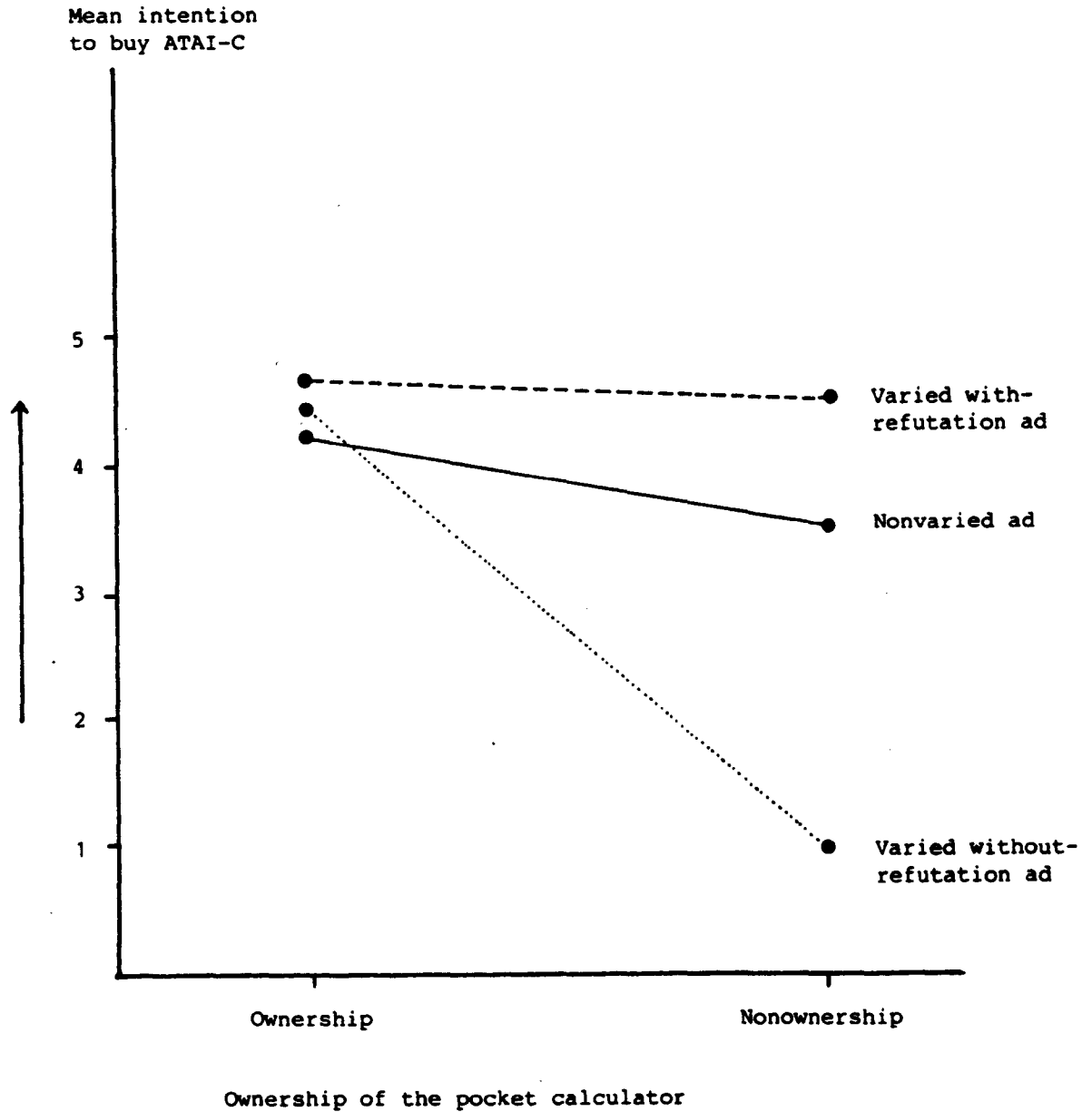
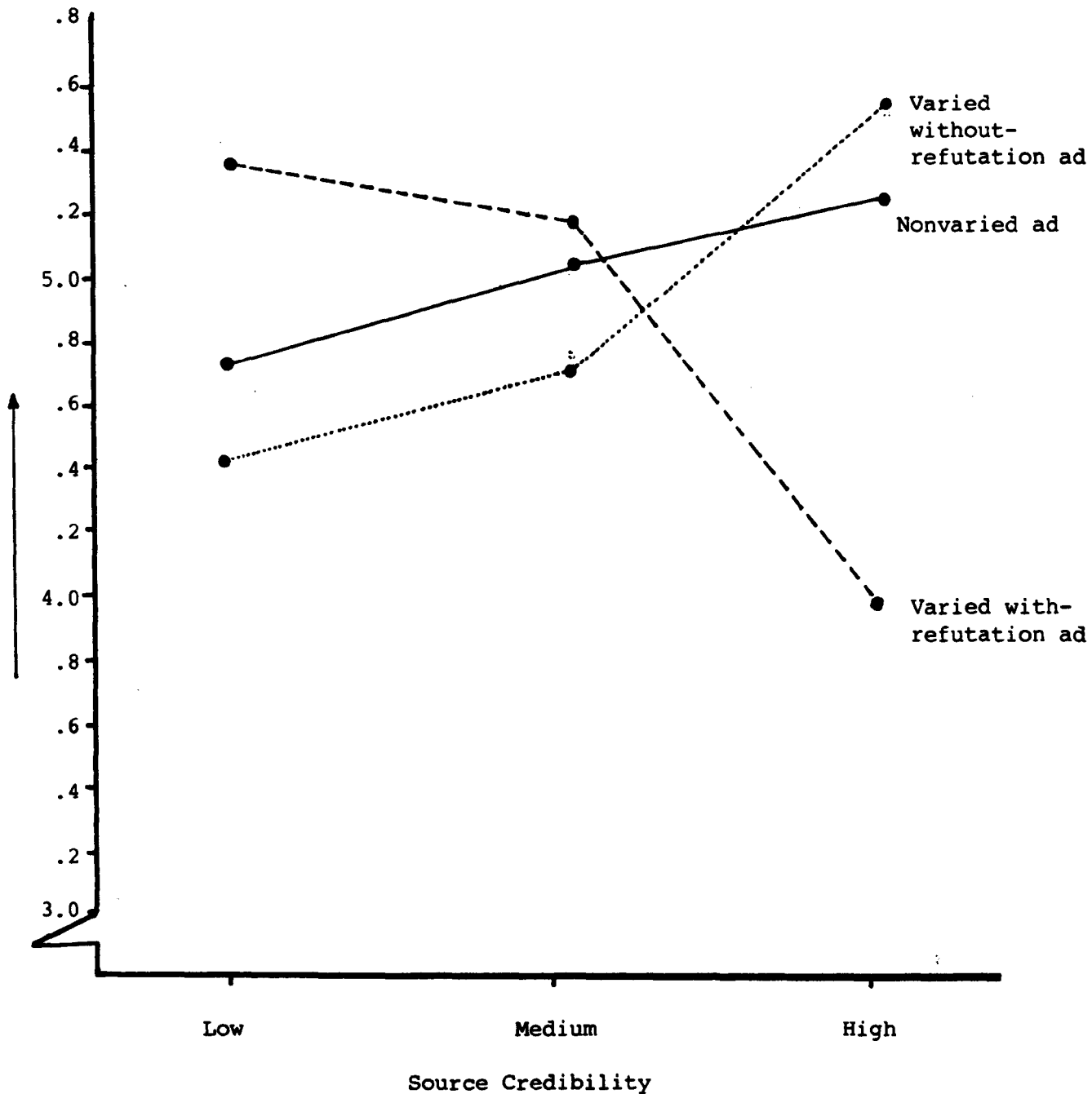


Figure (9-9)

Significant interaction effects of source credibility and message variation on the impression of ATAI-C



induced more favourable impressions of ATAI-C when nonvaried or varied without-refutation claims were used.

1.2.4 EFFECTS ON ATTRIBUTION ABOUT ATAI-C

(a) THE MAIN EFFECTS

A significant main effect by source credibility on the subjects' attributions about ATAI-C was observed. This is shown in Table (9-4). The high credibility source evoked significantly more positive attributions about the ATAI-C than did the medium credibility source.

Table (9-4): Significant main effects of source credibility on the attribution about ATAI-C

F-ratio	Source credibility mean scores			Significant comparison (SNK) ¹
	Low credibility (L)	Medium credibility (M)	High credibility (H)	
3.32*	5.08	4.86	5.50	H > M

¹ Student Newman-Kauls test for multiple comparisons

* Significant at 0.05 level

There was also significant main effect for message variation on attributions about ATAI-C. This is shown in Table (9-5).

Table (9-5): Significant main effect of message variation on the attribution about ATAI-C

F-ratio	Message variation mean scores			Significant comparison (SNK) ¹
	Nonvaried claim (1)	Varied without-refutation (2)	Varied with-refutation (3)	
9.36***	4.52	5.46	5.50	3 & 2 > 1

¹ Student Newman-Kauls test for multiple comparisons

*** Significant at 0.001 level

Table (9-5) shows that both varied with- and without-refutation claims evoked significantly more positive attributions about the advertised brand (ie. ATAI-C) than did the nonvaried claim.

(b) THE INTERACTIVE EFFECTS

There was also a significant interaction between message variation and the ownership of a pocket calculator ($F = 3.63$, d.f. = 2,136, $p < 0.05$). The means of this interaction are given in Table 10 in Appendix D.

This interactive effect is presented diagrammatically in Figure (9-10). The figure depicts that varied without-refutation and nonvaried claims evoked more positive attributions about the advertised brand (ie. ATAI-C) among respondents who did not own a pocket calculator, but not among those who owned one.

1.2.5 EFFECTS ON ARGUMENTATION

Table (9-6) shows that nonvaried and varied without-refutation claims induced significantly more support argumentation about the advertised brand.

Table (9-6): Support arguments generated by nonvaried, varied without-refutation and varied with-refutation claims

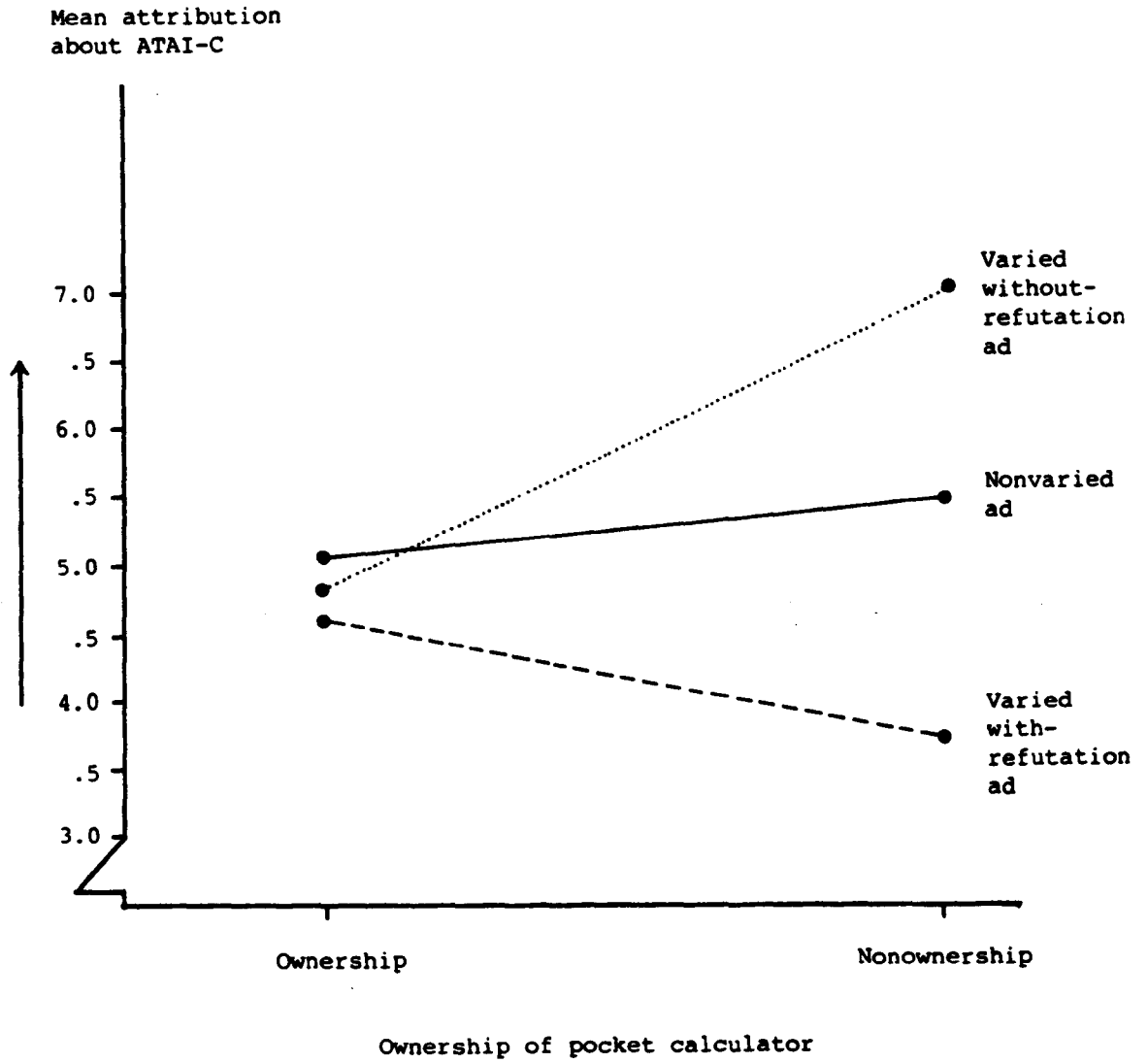
F-ratio	Message variation mean scores			Significant comparison (SNK) ¹
	Nonvaried claim (1)	Varied without-refutation (2)	Varied with-refutation (3)	
4.54**	90.29	88.72	77.95	1 & 2 > 3

¹ Student Newman-Kauls test for multiple comparisons

** Significant at 0.01 level

Figure (9-10)

Significant interaction effects of message variation and ownership of a pocket calculator on the attribution about ATAI-C



(2) FINDINGS OF THE SECOND SESSION - 10 DAYS LATER

2.1 SUBJECTS' PERCEPTIONS OF SOURCE CREDIBILITY

One of the major goals of the present experiment was to examine the consistency in the subjects' perceptions of source credibility over the passage of time. The major findings from the ANOVAs conducted are given in Table (9-7).

The subjects perceived the credibility of the three sources as being significantly different on 8 of the 18 rating scales of source credibility. There were also two source credibility x message variation interactions. Each of these effects will be reported separately as follows:

(a) THE MAIN EFFECTS OF SOURCE CREDIBILITY

The high credibility source was perceived as being more knowledgeable about computers, more sincere, more expert, and more knowledgeable about calculators. The medium credibility source was perceived as being more knowledgeable about advertising. The low credibility source was perceived as being more knowledgeable about French literature and less aggressive.

(b) THE INTERACTIVE EFFECTS

(b).1 THE EFFECT ON PERCEIVED TRUSTWORTHINESS

The means of this effect are given in Table 11 in Appendix D.

The interactive effect on the perceived trustworthiness of the source is shown in Figure (9-11).

Table (9-7): Main and interactive effects of source credibility and message variation on the perceived source credibility - the second session (10 days later)

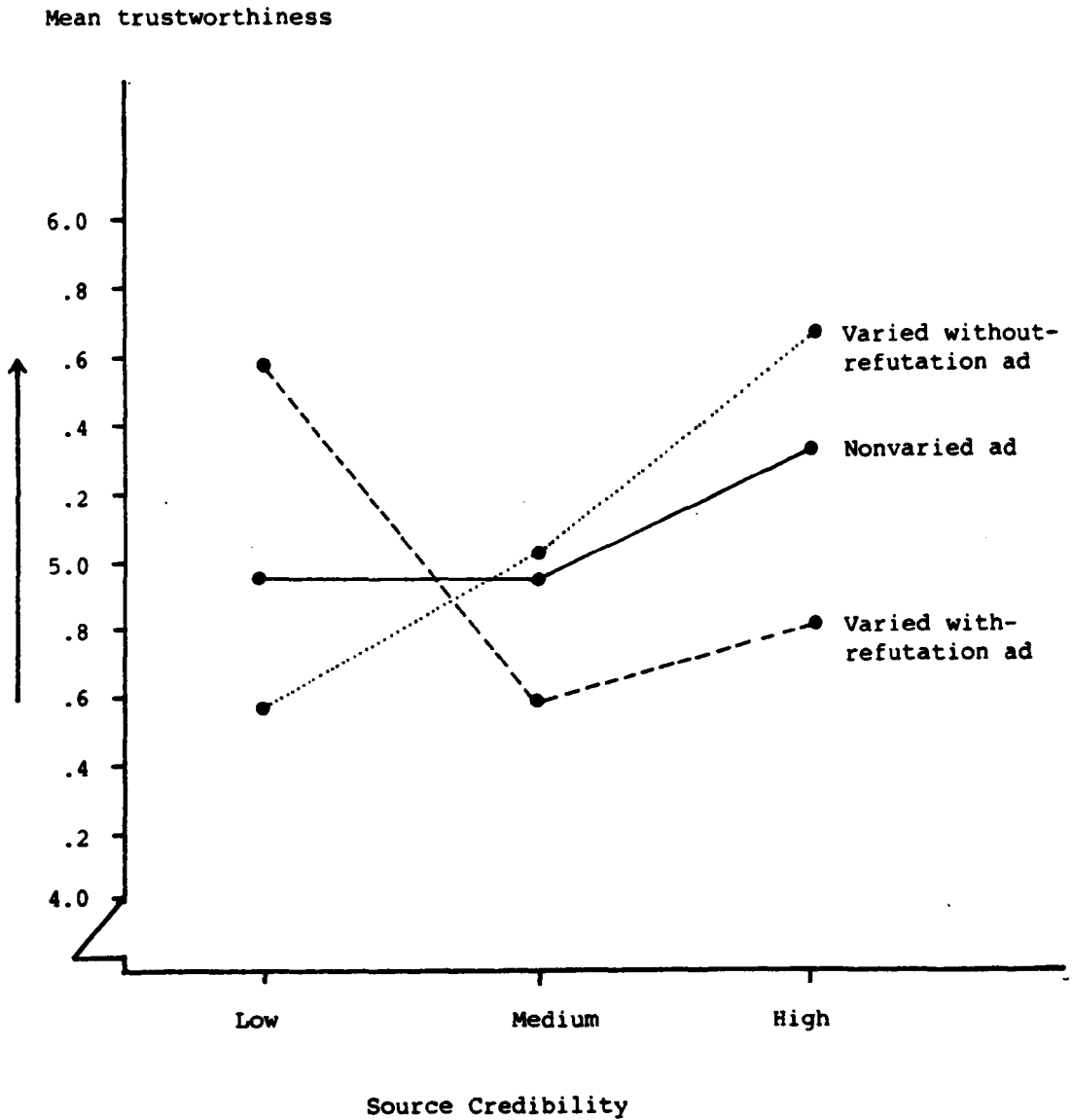
	Credibility Rating Scales	F-Ratios			Source credibility Mean scores			Significant comparisons Newman-Kauls test
		Source Credibility (SC)	Message Variation (MV)	Interaction of SC X MV (1)	Low (L)	Medium (M)	High (H)	
1	Low status - high status	0.90	0.32	1.94	5.45	5.69	5.74	
2	Untrustworthy - trustworthy	1.45	0.67	2.94*	5.04	4.88	5.28	
3	Unattractive - attractive	0.71	1.72	2.27	4.24	4.41	4.18	
4	Not knowledgeable about computers - knowledgeable about computers	63.75***	0.72	0.56	3.18	5.02	6.16	H > M > L
5	Insincere - sincere	3.00*	1.27	0.28	4.59	4.41	4.96	H > M
6	Not expert - expert	7.36***	1.82	1.64	5.20	5.43	6.20	H > L & M
7	Not knowledgeable about French literature - knowledgeable about French literature	132.20***	0.20	0.46	6.53	2.98	3.10	L > M & H
8	Bad - good	1.42	0.19	0.49	4.80	4.51	4.84	
9	Dangerous - safe	0.74	0.30	1.55	4.69	4.59	4.86	
10	Disreputable - reputable	0.55	0.27	1.93	5.41	5.49	5.48	
11	Aggressive - not aggressive	3.96*	0.26	1.40	4.59	4.20	4.00	L > H
12	Not knowledgeable about advertising - knowledgeable about advertising	10.38***	1.13	1.51	3.75	5.10	4.10	M > L & H
13	Untrained - trained	2.87	0.20	2.47*	5.61	5.90	6.16	
14	Not experienced - experienced	1.57	0.37	0.89	5.33	5.63	5.82	
15	Not knowledgeable about calculators - knowledgeable about calculators	31.25***	1.31	2.09	3.69	4.24	5.86	H > L & M
16	Not dynamic - dynamic	7.70***	0.72	0.24	3.94	4.53	4.88	H & M > L
17	Not knowledgeable - knowledgeable	0.77	0.11	2.03	5.63	5.49	5.74	
18	Unreliable - reliable	0.22	0.54	1.04	5.02	4.92	5.08	

(1) The means of the significant interactions will be described after the main effects

- * > 0.05
- ** > 0.01
- *** > 0.001

Figure (9-11)

Significant interaction effects of source credibility and message variation on the communicator's trustworthiness



As the figure depicts, the high and medium sources were perceived as being more trustworthy when nonvaried or varied without-refutation claims were used. The low credibility source tended to be perceived as more trustworthy when varied with-refutation and nonvaried claims were used.

(b).2 THE EFFECT ON THE PERCEIVED TRAINING OF THE SOURCE

The means of this interactive effect are given in Table 12 in Appendix D. This effect is presented in Figure (9-12).

The figure depicts that the low and medium credibility sources tended to be perceived as more highly trained when varied with-refutation and (to a lesser extent) nonvaried claims were used. On the other hand, the high credibility source tended to be perceived as being more highly trained when varied without-refutation and (to a lesser extent) nonvaried claims were used.

2.2 EFFECTS ON ATTITUDES TOWARD ATAI-C AND INTENTIONS TO BUY IT

When the experiment was repeated 10 days later there were no significant effects for source credibility, message variation or the interaction between them on the attitudes toward ATAI-C and intentions to buy it.

In order to examine whether there were any changes in attitudes toward and intention to buy ATAI-C produced by the three sources over the passage of time, the attitudes toward ATAI-C and intentions to buy it were compared. Table (9-8) compares the attitudes toward ATAI-C and behavioural intentions to buy it immediately after the exposure to the communication (the first session) with the follow-up measures of attitude and intention to

Figure (9-12)

Significant interaction effects of source credibility and message variation on the communicator's training

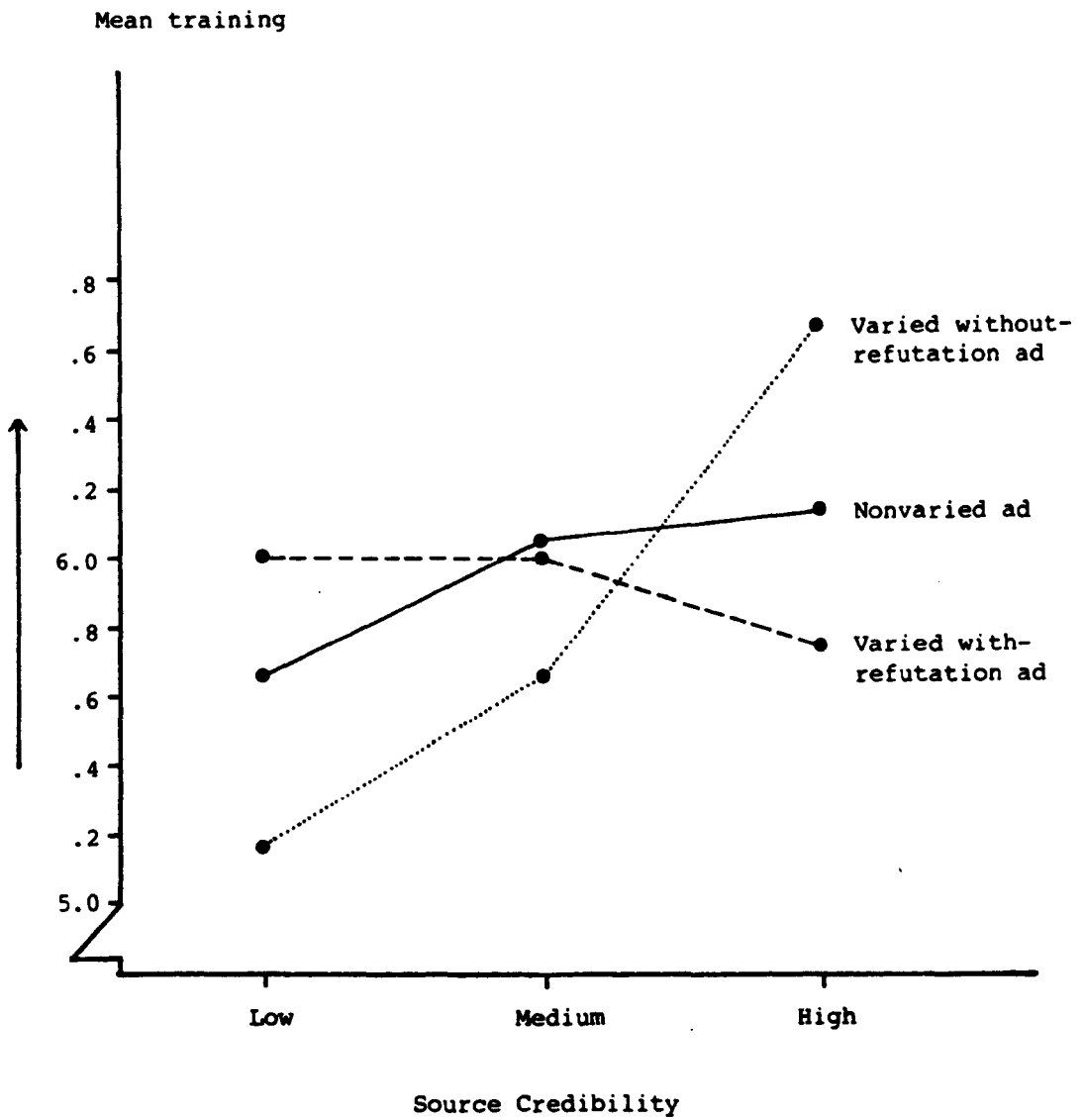


Table (9-8)

Mean attitude and intention to buy ATAI-C by low, medium and high credibility sources

Dependent Variable	First Session (postcommunication)			Second Session (10 days later)			Mean Change		
	Low Credibility	Medium Credibility	High Credibility	Low Credibility	Medium Credibility	High Credibility	Low Credibility	Medium Credibility	High Credibility
Attitudes toward ATAI-C	38.08	38.39	38.70	38.20	38.57	39.36	+0.12	+0.18	+0.66
Intentions to buy ATAI-C	2.31	2.15	2.40	2.27	2.35	2.14	-0.04	-0.10	-0.26

buy made 10 days later.

The differences over the 10 days interval were not significant.

Also, the attitudes produced by each of the three types of claims were compared. Table (9-9) shows the changes in the attitudes evoked by the three types of claims. None of the changes was significant.

2.3 EFFECTS ON THE IMPRESSION OF ATAI-C

In the second experimental session, there was no significant main or interactive effects exerted by source credibility or message variation on impressions of ATAI-C.

2.4 EFFECTS ON ATTRIBUTION ABOUT ATAI-C

Significant main effects for source credibility and message variation on the subjects' attributions about ATAI-C were observed. Each of the two effects will be reported as follows:

(a) SOURCE CREDIBILITY EFFECTS

Table (9-10) shows the main effect of source credibility on the subjects' attributions about ATAI-C.

Table (9-9)

Mean attitude and intention to buy ATAI-C by nonvaried, varied without-refutation and with-refutation advertisements

Dependent Variable	First Session (postcommunication)			Second Session (10 days later)			Mean Change		
	Nonvaried	Varied without-refutation	Varied with-refutation	Nonvaried	Varied without-refutation	Varied with-refutation	Nonvaried	Varied without-refutation	Varied with-refutation
Attitudes toward ATAI-C	39.40	38.98	36.67	38.90	39.10	38.10	-0.50	+0.12	+1.43
Intentions to buy ATAI-C	2.20	2.38	2.58	2.27	2.40	2.08	+0.07	+0.02	-0.50

Table (9-10): Main effects of source credibility on the attributions about ATAI-C

F-ratio	Source credibility mean scores			Significant comparison (SNK) ¹
	Low credibility (L)	Medium credibility (M)	High credibility (H)	
5.12**	4.75	5.02	5.58	H > L

¹ Student Newman-Kauls test for multiple comparisons

** Significant at 0.01 level

(b) MESSAGE VARIATION EFFECTS

Table (9-11) shows that the varied (with- and without-refutation) claims induced significantly more positive attributions about the advertised brand (ie. ATAI-C) than did the nonvaried claim during the second experimental session.

Table (9-11): Main effects of message variation on the attributions about ATAI-C

F-ratio	Message variation mean scores			Significant comparison (SNK) ¹
	Nonvaried claim (1)	Varied without-refutation (2)	Varied with-refutation (3)	
15.34***	4.27	5.50	5.63	3 & 2 > 1

¹ Student Newman-Kauls test for multiple comparisons

*** Significant at 0.001 level

2.5 EFFECTS ON ARGUMENTATION

Table (9-12) shows that the nonvaried and varied without-refutation claims were significantly more effective in inducing support argumentation about the ATAI-C during the second experimental session.

Table (9-12): Main effects of message variation on the argumentation

F-ratio	Message variation mean scores			Significant comparison (SNK) ¹
	Nonvaried claim (1)	Varied without-refutation (2)	Varied with-refutation (3)	
6.63***	92.03	91.22	76.07	1 & 2 > 3

¹ Student Newman-Kauls test for multiple comparisons

*** Significant at 0.001 level

SUMMARY OF THE MAJOR FINDINGS

The major findings of the present experimental study can be summarised as follows:-

- (1) Table (9-13) shows the major findings of the study concerning the similarities and differences between the ratings at each of the experimental stages, ie. precommunication, postcommunication and 10 days later. At each stage, the high credibility source was perceived as being more knowledgeable about computers and about calculators. The medium credibility source was perceived as being more knowledgeable about advertising. The low credibility source was perceived as being more knowledgeable about French literature and less aggressive.

However, there was considerably less stability in the subjects' ratings of other characteristics of the three sources over the three experimental stages:

- (a) In the first stage (ie. precommunication), the medium and high credibility sources were perceived as being of higher status, more highly trained, more experienced and more dynamic than the low credibility source. The high credibility source was perceived as being more sincere than the other two sources. The medium credibility source was seen as more attractive than the low credibility source. Both the low and high credibility sources were perceived as being less aggressive than the medium credibility source.

Thus in general the high and medium credibility sources were perceived in a more positive light

Table (9-13): Similarities and differences between the credibility ratings at each of the three experimental stages

Credibility Rating Scales	Significant comparisons between the 3 sources			Significant comparisons between the 3 types of claims			Significant interactions ¹		Second Session
	First Session		Second Session	First Session		Second Session	Pre-communication	Post-communication	
	Pre-communication	Post-communication		Pre-communication	Post-communication				
1 Low status - high status	M ² & H ³ > L ⁴							*	
2 Untrustworthy - trustworthy								*	*
3 Unattractive - attractive	M > L							*	
4 Not knowledgeable about computers - knowledgeable about computers	H > M > L	H > M > L	H > M > L					*	
5 Insincere - sincere	H > M & L								
6 Not expert - expert		H > L & M	H > L & M			2 > 3			
7 Not knowledgeable about French literature - knowledgeable about French literature	L > M & H								
8 Bad - good									
9 Dangerous - safe									
10 Disreputable - reputable								*	
11 Aggressive - not aggressive	L & H > M	L > M	L > H					*	
12 Not knowledgeable about advertising - knowledgeable about advertising	M > H > L	M > L & H	M > L & H					*	
13 Untrained - trained	M & H > L							*	*
14 Not experienced - experienced	H & M > L							*	
15 Not knowledgeable about calculators - knowledgeable about calculators	H > M > L	H > L & M	H > L & M						
16 Not dynamic - dynamic	M & H > L								
17 Not knowledgeable - knowledgeable									
18 Unreliable - reliable									

¹ These interactions are between source credibility and message variation

² Medium credibility source

³ High credibility source

⁴ Low credibility source

⁵ Varied without-refutation claim

⁶ Varied with-refutation claim

than the low credibility source. In addition, there is some indication that the medium credibility source was perceived in terms of the stereotype of the 'advertising man' (more attractive and more aggressive.)

- (b) In the second stage of the experiment (ie. postcommunication), some of the differential perceptions observed in the first stage disappeared. In particular, the differences between the three sources regarding perceived status, attractiveness, sincerity, experience and dynamism disappeared. Thus several of the perceived differences between the high and medium credibility sources and the low credibility sources disappeared after the advertisement had been presented.

One other major change in perceptions also occurred. Although the sources were not perceived differentially in terms of expertise at the precommunication stage, after the advertisement had been presented the high credibility source was rated as more expert than the medium and low credibility sources.

- (c) During the third stage (ie. when the ratings were repeated 10 days later) two differences in the precommunication ratings which disappeared from the postcommunication ratings reappeared: the high credibility source again tended to be perceived as more sincere; and the high and medium credibility sources tended to be perceived as more dynamic. Apart from these changes, the patterns of ratings were very similar to those

obtained during the second (postcommunication) stage.

(2) Regarding the effects of message variation on the subjects' perceptions of source credibility, Table (9-13) shows that there were no effects exerted by message variation in the first stage. This was not surprising - message variation had not been introduced at this stage. However, the effect of message variation appeared in the postcommunication stage: the varied without-refutation claim was more effective than the varied with-refutation claim in inducing perceptions of trustworthiness and expertise. These two effects disappeared 10 days later.

(3) Table (9-13) also shows that in the postcommunication stage there were six interactive effects of source credibility and message variation on ratings of the three sources. The high credibility source tended to be perceived as being of higher status, more attractive, more reputable, more highly trained and more experienced when nonvaried and varied without-refutation claims were used. The low credibility source was perceived as being of higher status, more attractive, more reputable and more experienced when a varied with-refutation claim was used.

These effects disappeared in the third stage with the exception of training on which the interactive effect continued. An additional interactive effect on the perceived trustworthiness of the sources was observed in the third stage. The low and medium credibility sources were perceived as more highly trained when

varied with-refutation and (to a lesser extent) nonvaried claims were used; the high credibility source was perceived to be more highly trained when varied without-refutation and nonvaried claims were used.

The high and medium credibility sources were perceived as being more trustworthy when nonvaried or varied without-refutation claims were used; the low credibility source was seen as more trustworthy when varied with-refutation and nonvaried claims were used.

- (4) During the postcommunication stage there were significant interactions between source credibility and message variation on attitudes towards and impressions of the ATAI-C. The common features of these interactions indicate that the low credibility source induced more favourable attitudes/impressions when a varied with-refutation appeal was used; the high credibility source induced more favourable attitudes/impressions when nonvaried or varied without-refutation appeals were used. These interactive effects were not observed 10 days later.
- (5) Nonvaried and varied with-refutation claims induced more intentions to buy ATAI-C in the nonownership situation. These differential effects only appeared during the postcommunication stage, they disappeared in the third stage - 10 days later.
- (6) The high credibility source and the varied (with- and without-refutation) claim evoked more positive attributions about the advertised brand (ie. ATAI-C) in

the postcommunication and the third stages. There was also a significant interaction between message variation and the ownership of a pocket calculator on the attributions about ATAI-C in the postcommunication stage but not in the third stage when the experiment was repeated 10 days later. In the second stage, varied without-refutation and nonvaried claims evoked more positive attributions about ATAI-C among respondents who did not own a pocket calculator, but not among those who owned one.

- (7) *Finally, nonvaried and varied without-refutation claims evoked more support argumentation in the second and third stages than a varied with-refutation claim did.*

To this end, we now turn to discuss those findings. This will be the focus of the next chapter.

CHAPTER TEN

DISCUSSION OF THE FINDINGS OF THE STUDY

CHAPTER TEN

DISCUSSION OF THE FINDINGS OF THE STUDY

INTRODUCTION

Previous empirical research on source credibility has focussed on exploring the ways in which certain types of sources induce particular effects. Most of this literature has been contradictory, for four main reasons. First, the dimensions used to define credibility are often unclear. Sometimes sources vary on more than one dimension. Alternatively, the independence of the factor the experiment is attempting to manipulate is often confounded with unrelated or extraneous dimensions. Second, given that certain persuasive effects are induced, the process by which this occurs is unclear - the literature is generally weak in dealing with mediating processes. Third, extensive research shows that source credibility operates most effectively when it is interacting with other variables, not in isolation. Fourth, many of the observed effects have been obtained from social persuasion experiments. These may not generalise to an advertising context.

This thesis has attempted to extend research in this area by addressing itself to some of the above problems. It set out to explore the interactive effect of source credibility and an important variable, message variation, in inducing attitudinal and behavioural change in an experimental advertising situation. To achieve this, a 3 x 3 factorial experimental design was used to examine the major hypotheses set out in Chapter 8. The weaknesses of many previous studies in not defining source credibility clearly enough were overcome by attempting to

systematically vary one important dimension, specific expertise, while keeping constant other potentially contaminating dimensions. In the event, this manipulation failed, despite extensive and rigorous pretesting, and the results were analysed on an 'ex post facto' basis.*

This chapter discusses some of the implications of what happened in the experimental work, and how the findings relate to existing theory and empirical research. Specifically, three issues are covered:-

- (1) Assessment of the effectiveness of the experimental manipulation.
- (2) Explanation of the major findings in relation to existing theory and empirical research.
- (3) Contribution of the study and its practical implications for advertising practice.

* It could be argued that the failure of the manipulation of one critical variable, such as source credibility, does not affect the validity of testing hypotheses related to any other variable which does not interact with the failed variable. In other words, in the present study, the failure of the source credibility manipulation may not invalidate the testing of the main effects of message variation.

However, the position adopted here is that a valid test of a main effects hypothesis involves demonstrating that the effects are independent of any interaction. Because the present study could not test whether such an interaction existed, in this case between source credibility and message variation, the message variation main effects could not be tested independently. As a result, all the data, including those in relation to any hypotheses concerned with the main effect of message variation, were analysed on an ex post facto basis.

(1) ASSESSMENT OF THE EFFECTIVENESS OF THE EXPERIMENTAL
MANIPULATION

As in any experimental investigation of the persuasive effects of source credibility, one of the major tasks to be accomplished is to check the adequacy of the experimental manipulation used in the experiment. In this case, the independent manipulation of source credibility failed, despite the careful and rigorous pretesting. The manipulation check did not replicate the findings obtained in the pretests. During the manipulation check, the three sources were perceived to differ on a number of rating scales* other than those describing the different kinds of specific expertise on which the source credibility descriptions were based. The intention was that the three sources, ie. the high, medium and low credibility sources, should be perceived to differ only in terms of specific expertise prior to the communication (ie. before the introduction of the message). This was not achieved, and the important question is to ask why.

There would appear to be three possible reasons. These are:-

- (a) The invalidity of the original pretesting procedures It is possible that the original pretesting was not properly carried out in methodological terms. In our view, even with the benefit of hindsight, this explanation is unlikely. It is important to remember that two different methodologies were used across the three pretests: a) repetition with independent samples, and b) making each person act as his/her own control. The latter in particular is an extremely powerful technique as it removes between-subject

* See Table (9-1) in Chapter 9 for more detail about the subjects' responses to the 18 rating scales of source credibility.

variance. Results on key items were similar across both methodologies, indicating that the manipulation was independent of the measurement technique. As discussed later, this pretest procedure is a considerable theoretical improvement on much of the previous literature.

- (b) Demand characteristics These characteristics refer to the set of unintentional cues in an experiment which appear to function as "demands," telling the experimental subjects what the experimenter expects of them [1].

It is of course impossible to eliminate demand characteristics from any empirical research which involves questioning or observing people who are aware that they are being observed. However, in the present study, whatever the demand characteristics of the pretests were, they did not influence the subjects' responses in such a way that they rated the three sources differentially on rating scales other than those which referred to specific expertise.

Despite this, during the source credibility manipulation check it seems likely that the demand characteristics changed in such a way that the subjects' responses to the sources were affected. In fact, it seems that during the manipulation check the demand characteristics may have operated in such a way that the subjects were induced to rate the high and medium credibility sources more positively, and the medium credibility source in terms of the stereotype of the 'advertising man.' There was some suggestion of this latter 'stereotype' in the pretest analysis; however, the trend was not statistically significant.

With hindsight, it seems likely that the demand characteristics of the source credibility manipulation check were affected by the context in which the experiment was conducted. It was conducted in a lecture theatre in a Business School in a technological university where it might be expected that lecturers and research staff would have more positive attitudes towards specialists in computing and advertising rather than specialists in French literature. Thus the respondents may have assumed - unconsciously or otherwise - that they were expected to respond positively to the high and medium credibility sources. Or they may have assumed - unconsciously or otherwise - that the experimenters would be pleased by positive responses to these sources. One of the most often observed characteristics of experimental subjects is their desire to please or to help the experimenter [2].

Perceived demand characteristics can be examined by pre-experimental inquiry procedures [3]. For example, by describing the experimental task to a panel and asking them what the experimenter hoped to discover and what in fact he did discover.

This check on the effectiveness of the manipulation of the experimental variables has a major advantage in its power to make explicit what for the true experimental subjects is implicit. However, the pre-experimental inquiry procedure has its own demand characteristics. For this reason, it is preferred that the experimenter in the inquiry is not acquainted with the actual experimental behaviour of the subjects.

Another possible technique to eliminate the effects of demand characteristics among the experimental subjects is by debriefing the respondents participating in the pretests of

the experiment as to their perceptions regarding the purpose of the study. If the respondents believe that they are participating in a test aiming at a purpose similar to the real purpose of the experiment, this would indicate that they will be able to discover what the experiment is about, and the findings would be likely to be attributed to demand characteristics.

The possibility that different demand characteristics operate during pretests and experiments could be minimised by conducting pretests and the experiment under the same conditions. However, in the present study it would have been difficult to conduct the experiment under the more relaxed and informal conditions of the pretests because of the logistical problems involved. A more feasible procedure would be to conduct pretests under the standardised conditions of the experiment. One problem here, however, would be the difficulty in obtaining access to different (but comparable) university classes over a possibly long series of pretests.

- (c) Differences between the subjects used in the pretests and the subjects used in the experiment The subjects of the pretest belonged to a variety of academic areas (specialisations), whereas the subjects of the experiment were business-marketing students. Being marketing students, the experimental subjects may have had different perceptions of the three sources. For instance, the low credibility source, 'the French literature man,' was perceived in a more negative light, whereas the medium credibility source, 'the advertising man,' was seen as more aggressive and more dynamic. Therefore, it would be better to use students belonging to the same academic area for the pretests and experiment.

Despite the fact that the manipulation of source credibility was not successful in this case, this does not invalidate the theoretical advantages of attempting to manipulate a variable such as this through pretesting followed by a precommunication experimental check. It is essential that independent variables are pre-measured and that this pre-measurement is validated in the experimental setting itself. Any studies not doing so are invariably left open to criticisms that obtained effects (or lack of them) are artefacts of the failure to accurately define the variable that is being studied.

This means that the theoretical procedure attempted here is an improvement over three types of study commonly reported in the literature:-

- (a) Those where no pretesting and no precommunication experimental check is carried out [4] The results of these studies are clearly open to many possible explanations.

- (b) Those where pretesting is carried out but no pre-communication experimental check is conducted [5] This is a common procedure in the literature but is questionable because the independence of the manipulated variable is not demonstrated in the experimental situation itself, and may thus be specific to the pretesting context. It is worth noting that had this procedure been followed in the present case, then the failure to manipulate source credibility would not have been apparent. The experiment would then have followed conventional lines, with an apparently powerful manipulation of the independent variable due to the rigour of the pretesting. Indeed, it is doubtful if the weakness would have been detected at all, given the fact that such procedures have been published in reputable scientific journals in the past.

- (c) Those where pretesting and manipulation checks of source credibility were conducted but on a limited number of scales [6] Again, this has been observed in the literature, but unless all other possible factors are measured or held constant, the results will be open to a variety of interpretations.

Again, it is worth noting that in the present study, if the source credibility manipulation had been checked only in terms of the non-specific expertise scale (expert - not expert), then the manipulation check would not have been observed to fail. There were no significant differences between the three sources in terms of this scale during the source credibility manipulation check.

Considering all the shortcomings of the previous experimental research on the perceived source credibility, the present study attempted to use more valid and powerful methodology in manipulating source credibility. That it failed was not a function of the desire to implement this type of methodology. Instead, it was due to a range of additional issues such as demand characteristics which have not previously been observed by the literature as relevant in the context of methods independently manipulating variables such as source credibility.

(2) EXPLANATION OF THE MAJOR FINDINGS IN RELATION TO EXISTING THEORY AND EMPIRICAL RESEARCH

2.1 PERCEIVED SOURCE CREDIBILITY

The findings of the experimental study in relation to subjects' perceptions of source credibility indicated that, at the precommunication stage, these seemed to rely on stereotypes. For instance, the medium credibility source (who was introduced to the subjects as a specialist in Business Administration - Advertising) was perceived as being of higher status, more attractive, more aggressive and more dynamic. These stereotypes largely disappeared at the postcommunication stage. Immediately after the advertisement had been presented, the three sources were judged less in terms of stereotypes and more in terms of their credibility as people who were competent to evaluate pocket calculators. The high credibility source was judged as being more expert as well as being more knowledgeable about computers and calculators. Even when the ratings were repeated 10 days later the high credibility source was rated as more expert.

Correspondent attribution theory [7] suggests that varied (with- and without-refutation) appeals are more effective than nonvaried appeals. Previous research suggests that varied without-refutation appeals may be more effective than nonvaried appeals [8]. Neither of these claims was supported by the present findings. The varied without-refutation claim was more effective than the varied with-refutation claim in producing high scores on the trustworthiness and expertise scales. There were no significant differences between the varied without-refutation and nonvaried messages on the same scales.

The major finding in the experiment is the interaction between source credibility and message variation. This interaction accounted for several differential effects on the subjects'

perceptions of the credibility of the three sources. For the low credibility source, his perceived credibility (in terms of status, attractiveness, reputation, training and experience) was higher when the varied (with-refutation) message claim was used, whereas the high credibility source scored more highly on the same scales when nonvaried and varied without-refutation messages were used.

Because the low credibility source is expected to generate more counterargumentation and less overall acceptance, his acknowledgement of some shortcomings (the disclaimed characteristics) of the advertised product (ie. ATAI-C), along with his claim of superiority of the same product on other characteristics may have inhibited the generation of counterargumentation against his advocated product (ie. ATAI-C) and as a result, his credibility was enhanced.

On the other hand, as the high credibility source is expected to block the generation of counterargumentation, the varied without-refutation claim perhaps enhanced the subjects' feelings of his objectivity and fairness. He was therefore evaluated as being more credible on the status, reputation, etc, rating scales. When he tried to defend the advertised product by refuting its shortcomings, he may have aroused the subjects' doubts about his real intention from this refutation, because they did not expect him to do that if he was really credible. It is possible of course that the high credibility source was also regarded more positively when he used a nonvaried claim because this kind of appeal was also perceived to be in keeping with his specific expertise.

However, when the experiment was repeated 10 days later most of these interactive effects disappeared. Of most interest are the two interactive effects of source credibility and message variation on the trustworthiness and training rating scales 10

days later. These occurred despite the fact that the experimental manipulations and messages were not repeated. The low credibility source benefited from the use of the varied with-refutation message in terms of his perceived trustworthiness and training, whereas the high credibility source benefited from the use of the nonvaried and varied without-refutation message in terms of perceived trustworthiness and training. It could be concluded that in the long-run, the varied with-refutation claim enhances the perceived trustworthiness of the low credibility source, whereas the trustworthiness of the high credibility source can be enhanced in the long-run by the use of nonvaried or varied without-refutation claims.

2.2 THE EFFECTS ON ATTITUDES

The major findings which emerged in relation to the attitude measures occurred in relation to the main effects of message variation and its interaction with source credibility. These effects were observed at the postcommunication stage when the message variation conditions were introduced. However, the main effects of source credibility on attitudes were not significant. This may have been due to the failure of the experimental manipulation of source credibility.

Regarding the main effects of message variation on attitudes, the experiment indicated that both the nonvaried and varied without-refutation messages were more effective than the varied with-refutation message in inducing more favourable attitudes toward the advertised product, (ATAI-C).

Despite the fact that previous empirical research [9] has demonstrated the relative effectiveness of the varied message over the nonvaried message in inducing persuasion, findings in the present experiment do not support this. For instance, there

was no significant difference between the varied without-refutation and nonvaried messages.

The effects of the interaction between source credibility and message variation on attitudes is of more interest because such interactions have not previously been examined in any empirical study. The low credibility source induced more favourable attitudes toward the advertised product (ie. ATAI-C pocket calculator) when a varied with-refutation message was used, whereas the high credibility source induced more favourable attitudes toward the advertised product when nonvaried and varied without-refutation messages were used. These findings match the message variation x source credibility interactions in the analysis of the rating scales.

For the low credibility source, disclaiming the superiority of the advertised product on some unimportant characteristics along with claiming its superiority on other important characteristics might have provided the subjects with explicit information which helped them in evaluating the advertised product. In advertising, because disclaiming the superiority of the product, even partially, is not a common practice, the subjects' perceptions of unbiasedness and fairness of the claim probably enhanced the credibility of the low credibility source. This perceived fairness may have operated as a blocking factor against the generation of counterargumentation and facilitated the activation of supportive argumentation and in turn, contributed to the formation of favourable attitudes toward the advertised product.

On the other hand, the high credibility source produced more favourable attitudes toward the advertised product when he used nonvaried or varied without-refutation messages. Despite the prevailing view to the contrary, the nonvaried message was more effective in producing more favourable attitudes when it was used

by the high credibility source. However, the use of refutation contributed to the discounting of his credibility.

2.3 THE EFFECTS ON INTENTIONS TO BUY

There was a significant interaction between message variation and the ownership of a pocket calculator. Nonvaried and varied with-refutation claims induced more intentions to buy the ATAI-C pocket calculator (ie. the advertised product) in the nonownership situation. Given the durability of pocket calculators, individuals who owned a pocket calculator are perhaps unlikely to buy another one unless they perceive some justification to motivate them to do so (such as the advertised product having some superior characteristics over the pocket calculator they own).

2.4 THE EFFECTS ON IMPRESSIONS

Another important finding obtained from this experiment was the interactive effect of message variation and source credibility on the subjects' impressions of the advertised product. The low credibility source produced more favourable impressions of the ATAI-C pocket calculator when a varied with-refutation claim was used. The high credibility produced more favourable impressions of ATAI-C when nonvaried or varied without-refutation claims were used. Considering the similarity of the effects of the three types of message on impressions of and attitudes toward ATAI-C for the low and high credibility sources, this finding has established the construct validity of the attitude measure.

2.5 THE EFFECTS ON ATTRIBUTIONS

The findings of the experiment pertaining to the attributions about the advertised product, are consistent with the prediction of hypothesis (2) of our study. The high credibility source induced greater positive attributions about the ATAI-C pocket calculator. Also, the varied (with- and without-refutation) claims evoked more positive attributions than the nonvaried claim.

A possible explanation for the positive effects of message variation is that a varied claim might be evaluated as a fair and objective one when it presented both sides of the advocated product (ie. the supportive, as well as the opposing arguments). On the other hand, a nonvaried claim presenting only the arguments supporting the advocated product might have raised doubts in the subjects' minds about the truthfulness of the claim. This finding is consistent with previous research [10].

Another important finding of this experiment was the significant message variation x ownership of a pocket calculator interactive effect on the attribution about the advertised product. Nonvaried and varied without-refutation claims evoked more positive attributions about ATAI-C among respondents who did not own a pocket calculator.

It is interesting to note that the main effects of source credibility and message variation on the subjects' attributions were stable across the two experimental sessions.

2.6 THE EFFECTS ON ARGUMENTATION

The findings for the support argumentation measure are at odds with the predictions made from the cognitive response theory and formulated in hypothesis (7-a) of this study. In both

experimental sessions, source credibility did not produce any significant effects on the generation of support argumentation. Again, a possible explanation for these findings may lie in the failure of the experimental manipulation.

However, the predicted message variation effect on the generation of support argumentation was observed, but not in the direction predicted in hypothesis (7-b). Despite the relative effectiveness of the varied without-refutation claim in inducing support argumentation, it did not significantly differ from the nonvaried claim in producing this effect. This finding contradicts the basic notions which predict that the varied message would be perceived as unbiased, and therefore it is likely to facilitate the generation of support argumentation, whereas the nonvaried would be perceived as biased and therefore is likely to inhibit the generation of support argumentation. Because of the favourable attitudes and impressions expressed toward the pocket calculator in general, this might have been sufficient to block the generation of counterargumentation that might be evoked by the nonvaried claim.

It is worth noting that in the second session, some of the effects discussed above persisted (such as the effects on attributions and on argumentation), whereas the other effects (ie. the effects on attitudes and intentions) disappeared. The disappearance of some effects can perhaps be attributed to the disconnection of the experimental stimulus (ie. ATAI-C) as a result of not introducing the experimental conditions.

However, it seems that the persistence of the effects on attributions and argumentation in the second session can be best explained in terms of continuing cognitive activity - probably largely unconscious cognitive activity - over the intervening 10 days. It seems reasonable to suggest that the processes of attribution and argumentation (involving rehearsal and covert

cognitive processing) continued beyond the first session. Whereas the possibly more superficial processes involved with respect to attitudes may be less prone to persist in the absence of the experimental stimulus.

(3) THE PRACTICAL IMPLICATIONS OF THE STUDY FOR ADVERTISING PRACTICE

This study is the first empirical experiment exploring the interactive effects of source credibility and variation in message structure in an advertising as opposed to public opinion/propaganda context.

As such, the major patterns of findings have relevance for advertising practice. During the source credibility manipulation check the subjects appear to have perceived the three sources largely in terms of stereotypes. In other words, the sources were rated in rather superficial terms. However, when the sources were used in the advertisement for the ATAI-C, they were rated or judged much more in terms of specific expertise and type of appeal used in the advertisement.

This interactive influence was also apparent in the attitudes towards the product. The high credibility source was perceived as more credible on a number of scales and induced more favourable attitudes towards the calculator when nonvaried or varied without-refutation appeals were used. On the other hand, the low credibility source was perceived as more credible on a number of scales and induced more favourable attitudes towards the calculator when a varied with-refutation appeal was used.

These findings suggest that when advertisers consider the merits and demerits of using high or low credibility sources they should also consider the type of appeal which is to be used. Clearly, the source credibility by message variation interaction seems to be important.

For example, the present findings suggest that advertisers considering the use of a 'celebrity' in promoting a product should conduct preliminary research to discover whether or not

the celebrity is perceived to be a credible judge of the product to be promoted. Furthermore, research should also be conducted to find out exactly what is meant by 'credible.' If the research indicates that the celebrity is perceived as credible and this implies expertise rather than any other of the many possible dimensions of credibility, then nonvaried or varied without-refutation appeals may be more effective in changing attitudes towards the product. On the other hand, if the celebrity is perceived to be low on credibility and this implies non-expertise, then a varied with-refutation appeal may be more effective. Defining the meaning of credibility and how it interacts with certain types of messages may thus be of significant value to advertising practitioners.

The present research was of course restricted to an examination of the influences of source credibility and message variation on attitudes/behavioural intentions towards one product. Further research should be directed towards an examination of these interactive effects on the promotion of other products. However, there appear to be no a priori reasons why the present pattern of findings should not be applicable to the promotion of other products. The suggestion that high credibility sources gain by showing a certain amount of dogmatism (or confidence) about their areas of expertise and that low credibility sources gain by showing a certain amount of diffidence (by considering both sides of issues before coming to a conclusion) does have the ring of common sense about it.

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APPENDICES

APPENDIX A: THE EXPERIMENTAL MANIPULATIONS OF SOURCE
CREDIBILITY AND MESSAGE VARIATION

APPENDIX B: THE EXPERIMENTAL QUESTIONNAIRE

APPENDIX C: THE RESULTS OF THE PRETESTS

APPENDIX D: MEAN SCORES, EXPECTED MEANS, RESIDUALS AND
VISUAL REPRESENTATION OF MEAN DIFFERENCE
FOR EACH SIGNIFICANT INTERACTION EFFECT

APPENDIX E: BIBLIOGRAPHY

APPENDIX A

**THE EXPERIMENTAL MANIPULATIONS OF SOURCE CREDIBILITY
AND MESSAGE VARIATION**

(1) THE HIGH CREDIBILITY SOURCE

PLEASE READ THE FOLLOWING INFORMATION CAREFULLY:

Mr Paul Ross has a higher degree in Computer Science. He has extensive experience in using several leading brands of computing systems. Mr Ross is a recognised expert whose advice is widely sought by business and educational institutions. He is a strong supporter for consumer protection regarding microcomputing systems. In addition, Mr Ross is a distinguished author of several computer packages and software for teaching purposes. He has recently addressed many consumer groups on the advantages and disadvantages of the use of microcomputers. Mr Ross is currently a Professor of Computer Science in a well-known university.

PLEASE TURN TO THE NEXT PAGE ...

(2) THE MEDIUM CREDIBILITY SOURCE

PLEASE READ THE FOLLOWING INFORMATION CAREFULLY:

Mr Paul Ross has a higher degree in Business Administration. He has extensive experience in advertising development research. Mr Ross is a recognised expert whose advice is widely sought by business and advertising institutions. He is strongly in favour of the use of up-to-date advertising techniques. In addition, Mr Ross is a distinguished author of several books on advertising procedures and research. He has recently addressed many business groups on the advantages and disadvantages of certain advertising procedures. Mr Ross is currently a Professor of Advertising Research in a well-known university.

PLEASE TURN TO THE NEXT PAGE ...

(3) THE LOW CREDIBILITY SOURCE

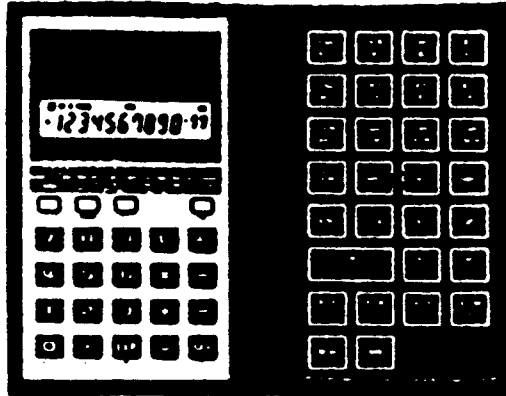
PLEASE READ THE FOLLOWING INFORMATION CAREFULLY:

Mr Paul Ross has a higher degree in French Language. He has extensive experience in the study and analysis of Medieval French literature. Mr Ross is a recognised expert whose advice is widely sought by educational institutions. He strongly supports efforts devoted towards combining French Language classes with classes in French history. In addition, Mr Ross is a distinguished author of several books on French Language and history. He has recently addressed a conference on recent developments in the study of Medieval French literature. Mr Ross is currently a Professor of Medieval French Literature in a well-known university.

PLEASE TURN TO THE NEXT PAGE ...

(1) THE NONVARIED AD

THE ATAI-C
SCIENTIFIC CALCULATOR
IS IN STEP WITH YOUR NEEDS



For your personal computing needs we offer you the ATAI-C pocket calculator - the best choice giving you the power of computer technology at your fingertips. Listen to what one of our users, Mr Paul Ross, has to say:

"I think the ATAI-C is SUPERIOR because: it has a variety of functions. It is very easy to use. The display is crystal clear.

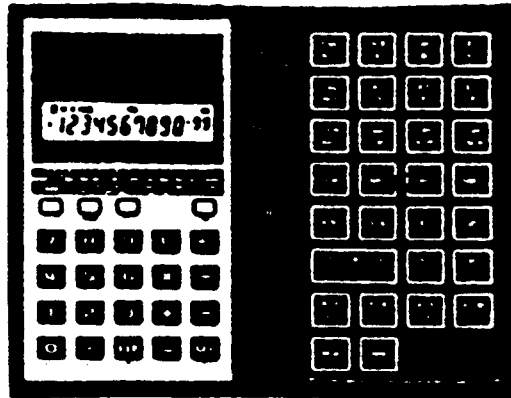
It has a long guarantee, and its screen is flat, not angled."

EXPAND YOUR HORIZONS BY HAVING THE ATAI-C

PLEASE TURN TO THE NEXT PAGE ...

(2) THE VARIED WITHOUT-REFUTATION AD

THE ATAI-C
SCIENTIFIC CALCULATOR
IS IN STEP WITH YOUR NEEDS



For your personal computing needs we offer you the ATAI-C pocket calculator - the best choice giving you the power of computer technology at your fingertips. Listen to what one of our users, Mr Paul Ross, has to say:

"I think the ATAI-C is SUPERIOR because: it has a variety of functions. It is very easy to use and the display is crystal clear.

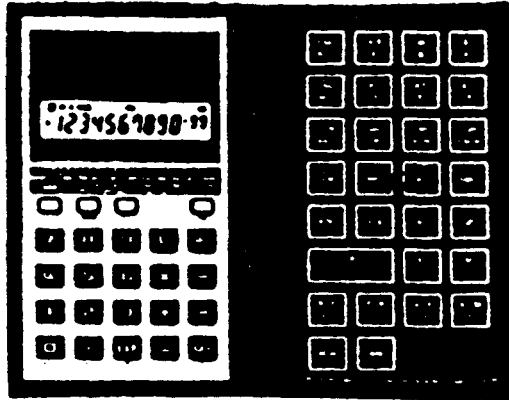
It also offers the same guarantee as most others, and has an angled, not flat, screen."

EXPAND YOUR HORIZONS BY HAVING THE ATAI-C

PLEASE TURN TO THE NEXT PAGE ...

(3) THE VARIED WITH-REFUTATION AD

THE ATAI-C
SCIENTIFIC CALCULATOR
IS IN STEP WITH YOUR NEEDS



For your personal computing needs we offer you the ATAI-C pocket calculator - the best choice giving you the power of computer technology at your fingertips. Listen to what one of our users, Mr Paul Ross, has to say:

"I think the ATAI-C is SUPERIOR because: it has a variety of functions. It is very easy to use and the display is crystal clear.

It also offers the same guarantee as most others, and has an angled, not flat, screen.

Sure you can get another brand of pocket calculator with a longer guarantee and with a flat screen. But none of them has the advantages the ATAI-C offers. Isn't it better to have a calculator that does what you want, than one that does what you DON'T want?"

EXPAND YOUR HORIZONS BY HAVING THE ATAI-C

PLEASE TURN TO THE NEXT PAGE ...

APPENDIX B

THE EXPERIMENTAL QUESTIONNAIRE

CONSUMER OPINION SURVEY

You are about to take part in a study concerning a product that you might use. The purpose of the study is to find out how consumers like yourself decide how to buy products. In order to accomplish this, pretend that you are about to buy a pocket calculator for your personal use.

You will be asked to read the contents of this booklet and be presented with a short questionnaire concerning your opinions about the product. There are no "right" or "wrong" answers to any of the questions that you may be asked. It is just your honest opinion we want.

All students should complete the booklet without the help of others involved in the study. If you do have questions while completing it, please raise your hand and we will assist you.

Your co-operation is sincerely appreciated.

Thank you.

PLEASE TURN TO THE NEXT PAGE ...

INSTRUCTIONS: We are interested in your opinions concerning pocket calculators. Even if you do not have one, please try to give your impressions. Please place an 'X' in the space on the following scales which you feel best describes your opinion about pocket calculators.

For office use only

Q1 Difficult to use Easy to use

Q2 Convenient Inconvenient

Q3 Bad Good

Q4 Not useful Useful

Q5 Educational Not educational

Q6 Unreliable Reliable

Q7 Clear Not clear

What is your overall impression of pocket calculators?

Q8 I like them I dislike them

Q9 Do you own a pocket calculator? Please place an 'X' in the appropriate box.

a) Yes Go to Q10 b) No Go to Q11

Q10 Which of the phrases below best indicates whether you will buy another pocket calculator in the next six months, in place of the one you already own?

For office use only

a) I will certainly buy another pocket calculator in the next six months, in place of the one I already own.

b) I might buy another pocket calculator in the next six months, in place of the one I already own.

c) I am not sure whether I will buy another pocket calculator in the next six months, in place of the one I already own.

d) I don't think I will buy another pocket calculator in the next six months, in place of the one I already own.

e) I certainly will not buy another pocket calculator in the next six months, in place of the one I already own.

Q11 Which of the phrases below best indicates whether you will buy a pocket calculator in the next six months.

For office use only

a) I will certainly buy a pocket calculator in the next six months.

b) I might buy a pocket calculator in the next six months.

c) I am not sure whether I will buy a pocket calculator in the next six months.

d) I don't think I will buy a pocket calculator in the next six months.

e) I certainly will not buy a pocket calculator in the next six months.

PLEASE TURN TO THE NEXT PAGE ...

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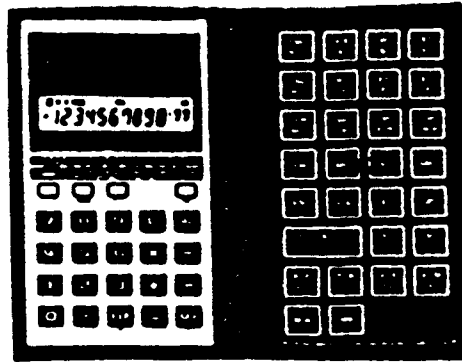
PLEASE TURN TO THE NEXT PAGE ...

INSTRUCTIONS: On each of the following scales, please place an 'X' in the space which you feel best describes Mr Paul Ross.

											For office use only
Q1	High status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Low status	<input type="checkbox"/>	<input type="checkbox"/>
Q2	Trustworthy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Untrustworthy	<input type="checkbox"/>	<input type="checkbox"/>
Q3	Unattractive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Attractive	<input type="checkbox"/>	<input type="checkbox"/>
Q4	Knowledgeable about computers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not knowledgeable about computers	<input type="checkbox"/>	<input type="checkbox"/>
Q5	Sincere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Insincere	<input type="checkbox"/>	<input type="checkbox"/>
Q6	Not expert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Expert	<input type="checkbox"/>	<input type="checkbox"/>
Q7	Not knowledgeable about French literature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Knowledgeable about French literature	<input type="checkbox"/>	<input type="checkbox"/>
Q8	Bad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	<input type="checkbox"/>	<input type="checkbox"/>
Q9	Safe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dangerous	<input type="checkbox"/>	<input type="checkbox"/>
Q10	Reputable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Disreputable	<input type="checkbox"/>	<input type="checkbox"/>
Q11	Aggressive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not aggressive	<input type="checkbox"/>	<input type="checkbox"/>
Q12	Not knowledgeable about advertising	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Knowledgeable about advertising	<input type="checkbox"/>	<input type="checkbox"/>
Q13	Untrained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Trained	<input type="checkbox"/>	<input type="checkbox"/>
Q14	Experienced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not experienced	<input type="checkbox"/>	<input type="checkbox"/>
Q15	Knowledgeable about calculators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not knowledgeable about calculators	<input type="checkbox"/>	<input type="checkbox"/>
Q16	Dynamic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not dynamic	<input type="checkbox"/>	<input type="checkbox"/>
Q17	Not knowledgeable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Knowledgeable	<input type="checkbox"/>	<input type="checkbox"/>
Q18	Unreliable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reliable	<input type="checkbox"/>	<input type="checkbox"/>

PLEASE TURN TO THE NEXT PAGE ...

THE ATAI-C
SCIENTIFIC CALCULATOR
IS IN STEP WITH YOUR NEEDS



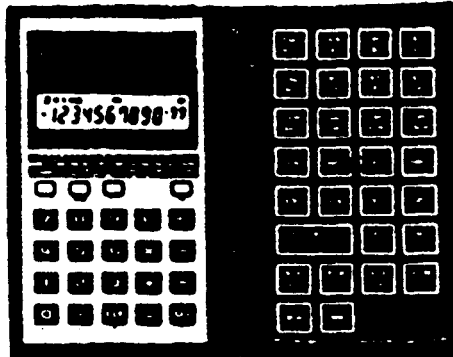
For your personal computing needs we offer you the ATAI-C pocket calculator - the best choice giving you the power of computer technology at your fingertips. Listen to what one of our users, Mr Paul Ross, has to say:

"I think the ATAI-C is SUPERIOR because: it has a variety of functions. It is very easy to use. The display is crystal clear. It has a long guarantee, and its screen is flat, not angled."

EXPAND YOUR HORIZONS BY HAVING THE ATAI-C

PLEASE TURN TO THE NEXT PAGE ...

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SCIENTIFIC CALCULATOR
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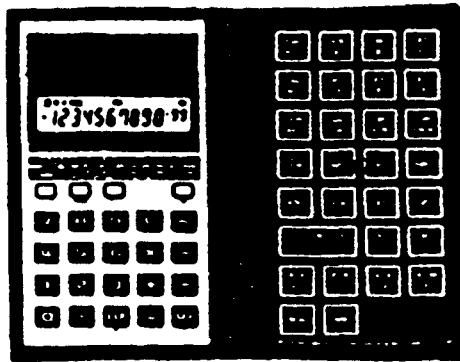
"I think the ATAI-C is SUPERIOR because: it has a variety of functions. It is very easy to use and the display is crystal clear.

It also offers the same guarantee as most others, and has an angled, not flat, screen."

EXPAND YOUR HORIZONS BY HAVING THE ATAI-C

PLEASE TURN TO THE NEXT PAGE ...

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For your personal computing needs we offer you the ATAI-C pocket calculator - the best choice giving you the power of computer technology at your fingertips. Listen to what one of our users, Mr Paul Ross, has to say:

"I think the ATAI-C is SUPERIOR because: it has a variety of functions. It is very easy to use and the display is crystal clear.

It also offers the same guarantee as most others, and has an angled, not flat, screen.

Sure you can get another brand of pocket calculator with a longer guarantee and with a flat screen. But none of them has the advantages the ATAI-C offers. Isn't it better to have a calculator that does what you want, than one that does what you DON'T want?"

EXPAND YOUR HORIZONS BY HAVING THE ATAI-C

PLEASE TURN TO THE NEXT PAGE ...

INSTRUCTIONS: Imagine you are about to buy a pocket calculator. Please place an 'X' in the space which you feel best describes the ATAI-C pocket calculator.

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Q1	Difficult to use	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Easy to use	<input type="checkbox"/>
Q2	Convenient	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Inconvenient	<input type="checkbox"/>
Q3	Bad	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Good	<input type="checkbox"/>
Q4	Not useful	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Useful	<input type="checkbox"/>
Q5	Educational	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Not educational	<input type="checkbox"/>
Q6	Unreliable	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Reliable	<input type="checkbox"/>
Q7	Clear	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Not clear	<input type="checkbox"/>
What is your overall impression of the ATAI-C pocket calculator?				
Q8	I like it	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	I dislike it	<input type="checkbox"/>
Q9	Do you own a pocket calculator? Please place an 'X' in the appropriate box.			
	a) Yes	<input type="checkbox"/>	Go to Q10	
	b) No	<input type="checkbox"/>	Go to Q11	<input type="checkbox"/>

Q10 Which of the phrases below best indicates whether you will buy the ATAI-C pocket calculator in the next six months, in place of the one you already own?

For office
use only

a) I will certainly buy the ATAI-C pocket calculator in the next six months, in place of the one I already own.

b) I might buy the ATAI-C pocket calculator in the next six months, in place of the one I already own.

c) I am not sure whether I will buy the ATAI-C pocket calculator in the next six months, in place of the one I already own.

d) I don't think I will buy the ATAI-C pocket calculator in the next six months, in place of the one I already own.

e) I certainly will not buy the ATAI-C pocket calculator in the next six months, in place of the one I already own.

Q11 Which of the phrases below best indicates whether you will buy the ATAI-C pocket calculator in the next six months?

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a) I will certainly buy the ATAI-C pocket calculator in the next six months.

b) I might buy the ATAI-C pocket calculator in the next six months.

c) I am not sure whether I will buy the ATAI-C pocket calculator in the next six months.

d) I don't think I will buy the ATAI-C pocket calculator in the next six months.

e) I certainly will not buy the ATAI-C pocket calculator in the next six months.

Q12 Do you feel that the ATAI-C pocket calculator actually possesses the features that were stated.

Definitely yes Definitely not

PLEASE TURN TO THE NEXT PAGE ...

INSTRUCTIONS: On each of the following scales, please place an 'X' in the space which you feel best describes Mr Paul Ross.

											For office use only
Q1	High status	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Low status	<input type="checkbox"/>	
Q2	Trustworthy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Untrustworthy	<input type="checkbox"/>	
Q3	Unattractive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Attractive	<input type="checkbox"/>	
Q4	Knowledgeable about computers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not knowledgeable about computers	<input type="checkbox"/>	
Q5	Sincere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Insincere	<input type="checkbox"/>	
Q6	Not expert	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Expert	<input type="checkbox"/>	
Q7	Not knowledgeable about French literature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Knowledgeable about French literature	<input type="checkbox"/>	
Q8	Bad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Good	<input type="checkbox"/>	
Q9	Safe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Dangerous	<input type="checkbox"/>	
Q10	Reputable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Disreputable	<input type="checkbox"/>	
Q11	Aggressive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not aggressive	<input type="checkbox"/>	
Q12	Not knowledgeable about advertising	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Knowledgeable about advertising	<input type="checkbox"/>	
Q13	Untrained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Trained	<input type="checkbox"/>	
Q14	Experienced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not experienced	<input type="checkbox"/>	
Q15	Knowledgeable about calculators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not knowledgeable about calculators	<input type="checkbox"/>	
Q16	Dynamic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not dynamic	<input type="checkbox"/>	
Q17	Not knowledgeable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Knowledgeable	<input type="checkbox"/>	
Q18	Unreliable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reliable	<input type="checkbox"/>	

PLEASE TURN TO THE NEXT PAGE ...

INSTRUCTIONS: In the left-hand part of the boxes below, please list everything you can remember about the ATAI-C pocket calculator. Put the first thing you remember in the left-hand part of the first box; the second thing in the the left-hand part of the second box, and so on. Please put only one idea or thought in a box.

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You will have three minutes to state your ideas.

Please do NOT turn back and look at the advertisement.

Q1		
Q2		
Q3		
Q4		
Q5		
Q6		
Q7		
Q8		
Q9		
Q10		

+	
-	

INSTRUCTIONS: Finally, please go back to the previous page and indicate, in the right-hand part of each box, whether each thought you recorded was in favour of the ATAI-C pocket calculator or against the ATAI-C pocket calculator.

Place an '+' sign for thoughts in favour OR place a '-' sign for thoughts against.

A blank box means the thought is neutral, neither for or against the ATAI-C pocket calculator.

STOP ...

Thank you for your co-operation.

For office
use only

APPENDIX C

THE RESULTS OF THE PRETESTS

**(1) RESULTS OF THE THREE PRETESTS OF THE
SOURCE CREDIBILITY MANIPULATION**

FIRST PRETEST

Table (1): Mean and Standard Deviation of the 14 Rating Scales
of Source Credibility (The Two Credibility Conditions)

(N = 40)

No	Credibility Rating Scores	Mean (\bar{x})		Standard Deviation (SD)	
		HC *1	LC *2	HC	LC
1	High status - low status	6.30	6.30	0.68	0.64
2	Trustworthy - untrustworthy	5.60	4.95	1.30	1.49
3	Unattractive - attractive	4.23	4.35	0.96	1.04
4	Sincere - insincere	5.28	4.75	1.07	1.39
5	Not expert - expert	6.78	6.33	0.42	1.31
6	Bad - good	4.95	4.95	0.97	1.02
7	Safe - dangerous	5.10	4.73	1.02	1.50
8	Reputable - disreputable	6.13	6.35	1.08	0.82
9	Aggressive - not aggressive	3.88	3.13	1.38	1.25
10	Untrained - trained	6.30	6.60	1.42	1.02
11	Experienced - not experienced	6.68	6.58	0.61	1.02
12	Dynamic - not dynamic	5.48	5.98	1.20	1.13
13	Unknowledgeable - knowledgeable	6.23	6.43	1.17	1.02
14	Unreliable - reliable	5.70	5.40	0.93	1.18

*1 High Credibility Source

*2 Low Credibility Source

SECOND PRETEST

Table (2): Mean and Standard Deviation of the 17 Rating Scales of Source Credibility (The Two Credibility Conditions)

(N = 50)

No	Credibility Rating Scores	Mean (\bar{x})		Standard Deviation (SD)	
		HC*1	LC*2	HC	LC
1	Low status - high status	6.08	6.20	0.69	0.72
2	Untrustworthy - trustworthy	5.64	5.18	0.95	1.32
3	Unattractive - attractive	4.22	4.42	1.01	1.08
4	Not knowledgeable about computers - knowledgeable about computers	6.78	3.78	0.83	1.50
5	Insincere - sincere	5.26	4.54	1.20	1.20
6	Not expert - expert	6.74	6.42	0.48	0.96
7	Bad - good	5.02	5.02	0.91	1.03
8	Dangerous - safe	5.26	4.68	1.28	1.30
9	Disreputable - reputable	6.10	6.02	0.81	0.95
10	Aggressive - not aggressive	3.72	3.08	1.10	1.31
11	Not knowledgeable about advertising - knowledgeable about advertising	4.10	6.60	1.72	1.11
12	Untrained - trained	6.66	6.48	0.65	1.04
13	Not experienced - experienced	6.40	6.44	0.96	0.90
14	Not knowledgeable about calculators - knowledgeable about calculators	6.06	4.34	1.16	1.44
15	Not dynamic - dynamic	4.98	5.60	1.32	1.23
16	Not knowledgeable - knowledgeable	6.12	6.22	0.97	0.94
17	Unreliable - reliable	5.68	5.20	0.90	1.13

*1 High Credibility Source

*2 Low Credibility Source

THIRD PRETEST

Table (3): Mean and Standard Deviation of the 18 Rating Scales of Source Credibility (The Three Credibility Conditions)

(N = 60)

No	Credibility Rating Scales	Mean (\bar{x})			Standard Deviation (SD)		
		HC *1	MC *2	LC *3	HC	MC	LC
1	High status - low status	6.35	6.22	6.20	0.70	0.69	0.96
2	Trustworthy - untrustworthy	5.72	4.88	5.55	0.95	1.37	0.99
3	Unattractive - attractive	4.43	4.18	4.22	1.26	1.30	1.36
4	Knowledgeable about computers - not knowledgeable about computers	6.92	4.40	2.37	0.28	1.62	1.26
5	Sincere - insincere	5.42	4.38	5.23	1.00	1.34	1.30
6	Not expert - expert	6.67	6.12	6.35	0.60	1.37	1.29
7	Not knowledgeable about French literature - knowledgeable about French literature	2.10	2.35	6.92	1.21	1.44	0.28
8	Bad - good	4.93	4.57	5.00	1.05	1.09	1.02
9	Safe - dangerous	4.93	4.25	5.17	1.31	1.34	1.34
10	Reputable - disreputable	6.12	5.55	6.17	1.02	1.35	0.93
11	Aggressive - not aggressive	4.07	3.18	4.62	1.46	1.38	1.44
12	Not knowledgeable about advertising - knowledgeable about advertising	4.02	6.72	3.07	1.85	0.84	1.74
13	Untrained - trained	6.63	6.37	6.12	0.60	0.95	1.40
14	Experienced - not experienced	6.33	6.38	6.27	1.12	1.02	1.05
15	Knowledgeable about calculators - not knowledgeable about calculators	6.43	4.05	2.20	0.59	1.71	1.21
16	Dynamic - not dynamic	5.12	5.75	4.57	1.33	1.13	1.74
17	Not knowledgeable - knowledgeable	6.18	5.90	6.33	1.10	1.16	0.85
18	Unreliable - reliable	5.43	5.03	5.53	1.24	1.06	1.04

*1 High Credibility Source

*2 Medium Credibility Source

*3 Low Credibility Source

**(2) THE PRETEST OF THE IMPORTANCE OF THE POCKET CALCULATOR'S
CHARACTERISTICS AND THE RESULTS**

Please read the following information carefully:

Place yourself in the following purchase situation:

- 1 You are about to buy a pocket calculator. As part of this, you have been actively seeking information on competing brands.

- 2 After considering your financial position, you feel that it is in your best interests to purchase a pocket calculator, but you have not decided on the specific brand or model.

On the following scale, please give your opinion on the importance of each of the listed attributes in determining your choice:

Attribute	Very important	Reasonably important	Neither important nor unimportant	Not very important	Not important at all
1) The number of digits that the calculator has					
2) The calculator's memory capacity					
3) The variety of computing functions that can be handled					
4) The power system (ie. solar vs. batteries)					
5) The price					
6) The ease of use					
7) The clarity of display					
8) The flatness of the screen (ie. flat vs. angled)					
9) The keyboard design					
10) The length of warranty					

Table 4

Means and Standard Deviations of the Pocket Calculator's Characteristics Importance Ratings

No	The Scale Characteristic	Very important (5)	Reasonably important (4)	Neither important nor unimportant (3)	Not very important (2)	Not important at all (1)	Total	Mean (\bar{x})	Standard Deviation (SD)	Rank
1	The number of digits	8 (20%)	25 (62.5%)	7 (17.5%)	- (-)	- (-)	40 (100%)	4.03	0.61	5
2	The memory capacity	10 (25%)	22 (55%)	5 (12.5%)	1 (2.5%)	2 (5%)	40 (100%)	3.93	0.96	6
3	The variety of functions	26 (65%)	10 (25%)	2 (5%)	2 (5%)	- (-)	40 (100%)	4.50	0.81	1
4	The power system (batteries)	6 (15%)	8 (20%)	13 (32.5%)	9 (22.5%)	4 (10%)	40 (100%)	3.08	1.19	9
5	The price	12 (30%)	24 (60%)	2 (5%)	2 (5%)	- (-)	40 (100%)	4.15	0.73	4
6	The ease of use	21 (52.5%)	16 (40%)	1 (2.5%)	2 (5%)	- (-)	40 (100%)	4.40	0.77	2
7	The clarity of display	18 (45%)	15 (37.5%)	6 (15%)	1 (2.5%)	- (-)	40 (100%)	4.25	0.80	3
8	The flatness of the screen	- (-)	5 (12.5%)	18 (45%)	11 (27.5%)	6 (15%)	40 (100%)	2.55	0.89	10
9	The keyboard design	3 (7.5%)	19 (47.5%)	11 (27.5%)	5 (12.5%)	2 (5%)	40 (100%)	3.40	0.97	7
10	The length of warranty	3 (7.5%)	13 (32.5%)	1 (2.5%)	13 (32.5%)	1 (2.5%)	40 (100%)	3.10	1.02	8

APPENDIX D

**MEAN SCORES, EXPECTED MEANS, RESIDUALS
AND VISUAL REPRESENTATION OF MEAN DIFFERENCE
FOR EACH SIGNIFICANT INTERACTION EFFECT**

Table 1Significant interaction effects of source credibility and message variation on the communicator's status: actual and expected mean scores and residual

(First Session - Postcommunication)

		<u>Message Variation</u>		
		<u>Nonvaried</u>	<u>Varied without- refutation</u>	<u>Varied with- refutation</u>
<u>Source Credibility</u>	<u>Low</u>	5.24 ⁽¹⁾	5.88	5.94
		5.74 ⁽²⁾	5.83	5.67
		(-0.50) ⁽³⁾	(+0.05)	(+0.27)
	<u>Medium</u>	6.00	5.94	5.80
		5.86	5.94	5.79
		(+0.14)	(0)	(+0.01)
<u>High</u>	6.11	6.06	5.19	
	5.80	5.88	5.73	
	(+0.31)	(+0.18)	(-0.54)	

F-ratio = 2.55

P < 0.05

Key: (1) Actual mean
 (2) Expected mean
 (3) Residual

Figure 1

Significant interaction effects of source credibility and message variation on the communicator's status: plotted by mean differences

(First Session - Postcommunication)

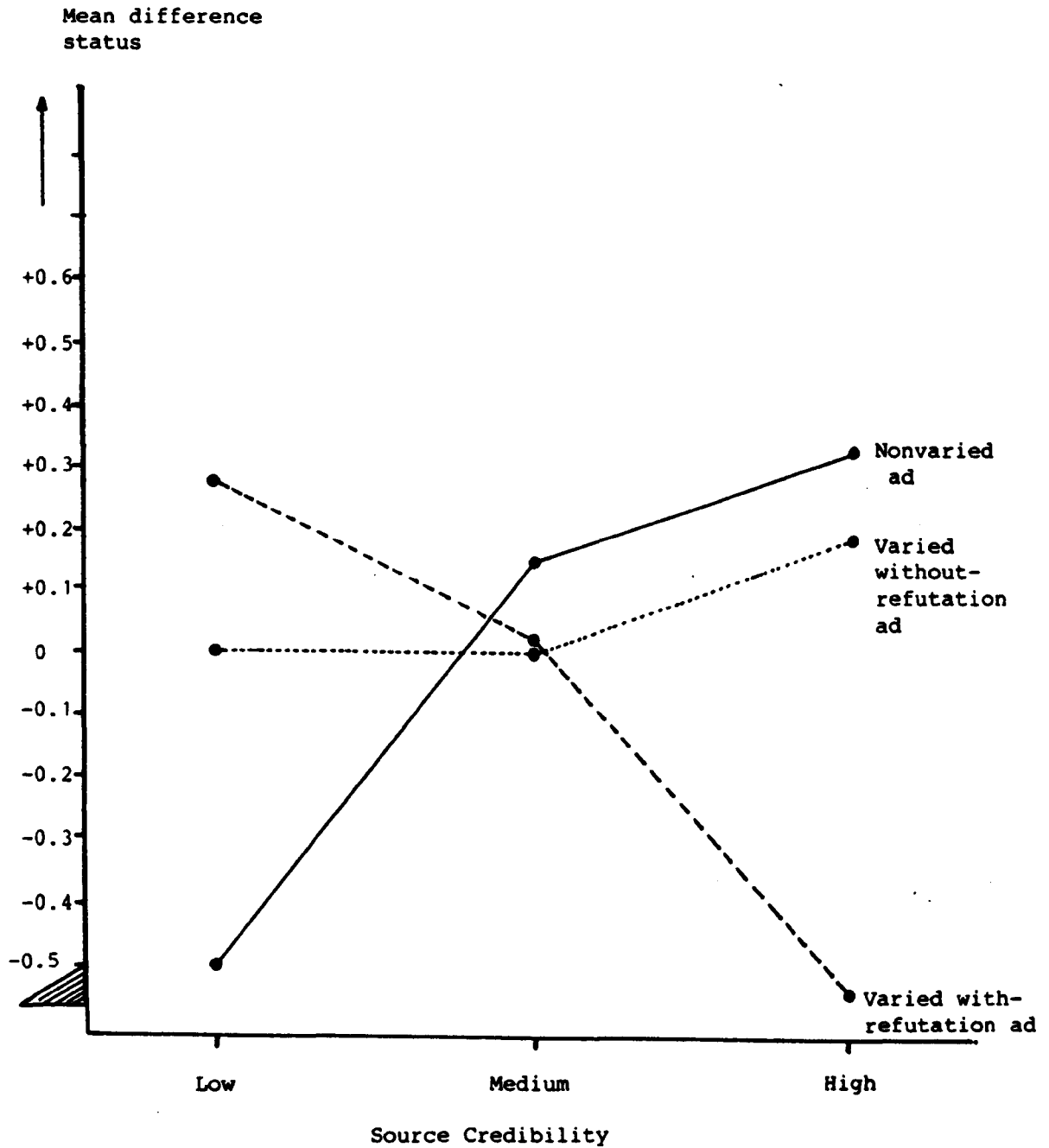


Table 2Significant interaction effects of source credibility and message variation on the communicator's attractiveness: actual and expected mean scores and residual

(First Session - Postcommunication)

		<u>Message Variation</u>		
		<u>Nonvaried</u>	<u>Varied without-refutation</u>	<u>Varied with-refutation</u>
<u>Source Credibility</u>	<u>Low</u>	4.06 ⁽¹⁾	4.18	4.76
		4.38 ⁽²⁾	4.29	4.41
		(-0.32) ⁽³⁾	(-0.11)	(+0.35)
	<u>Medium</u>	4.82	3.82	4.60
		4.42	4.33	4.45
		(+0.42)	(-0.51)	(+0.15)
<u>High</u>	4.39	4.75	4.06	
	4.41	4.32	4.44	
	(-0.02)	(+0.43)	(-0.38)	

F-ratio = 3.26

P < 0.01

Key: (1) Actual mean
(2) Expected mean
(3) Residual

Figure 2

Significant interaction effects of source credibility and message variation on the communicator's attractiveness: plotted by mean differences

(First Session - Postcommunication)

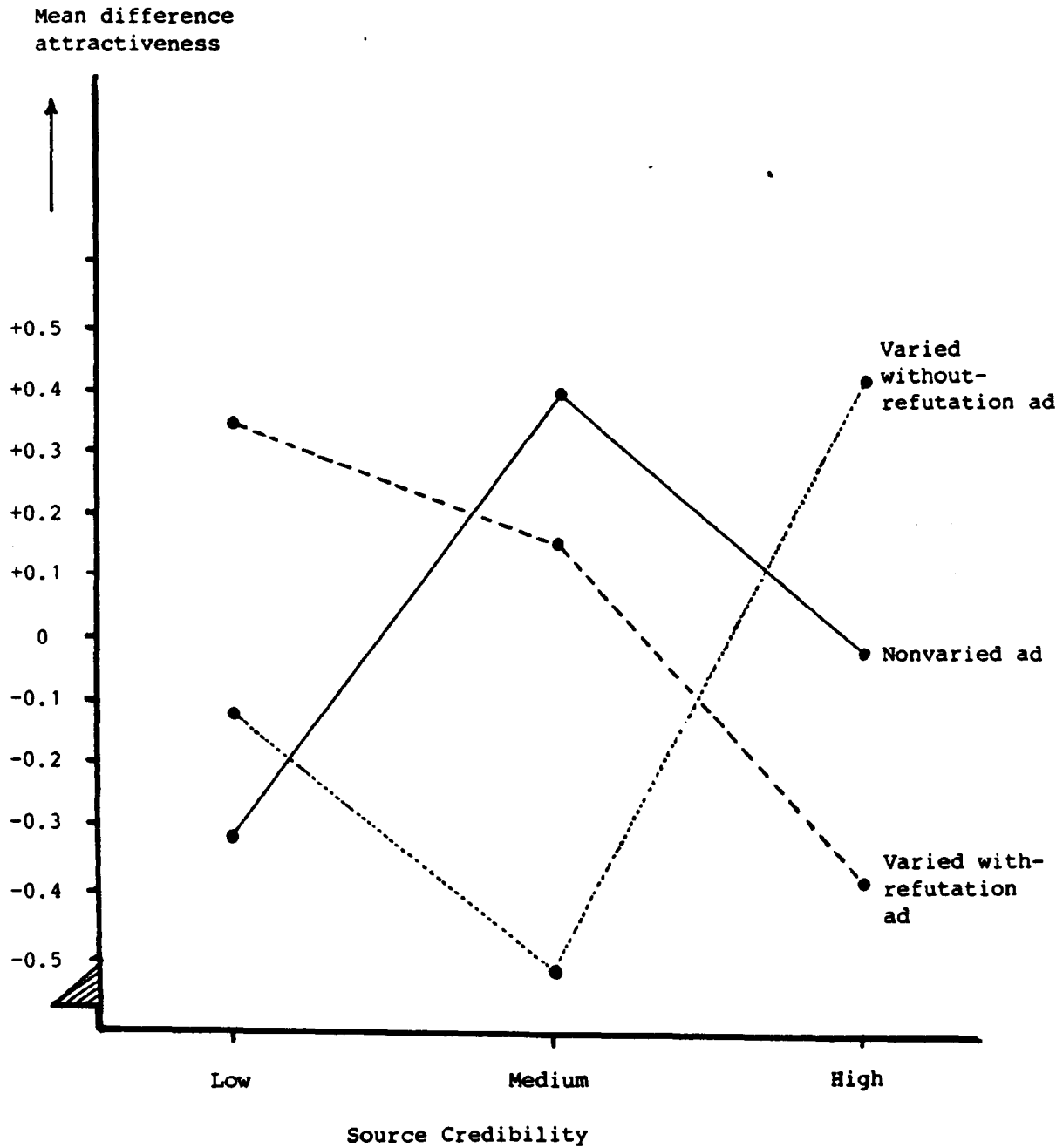


Table 3**Significant interaction effects of source credibility and message variation on the communicator's reputation: actual and expected mean scores and residual****(First Session - Postcommunication)**

		<u>Message Variation</u>		
		<u>Nonvaried</u>	<u>Varied without- refutation</u>	<u>Varied with- refutation</u>
<u>Source Credibility</u>	<u>Low</u>	5.47 ⁽¹⁾	5.00	5.71
		5.49 ⁽²⁾	5.42	5.20
		(-0.02) ⁽³⁾	(-0.42)	(+0.51)
	<u>Medium</u>	5.59	6.00	4.60
		5.51	5.01	5.22
		(+0.08)	(+0.99)	(-0.62)
<u>High</u>	5.67	5.31	4.63	
	5.40	5.33	5.11	
	(+0.27)	(-0.02)	(-0.48)	

F-ratio = 3.17

P < 0.05

Key: (1) Actual mean
 (2) Expected mean
 (3) Residual

Figure 3

Significant interaction effects of source credibility and message variation on the communicator's reputation: plotted by mean differences

(First Session - Postcommunication)

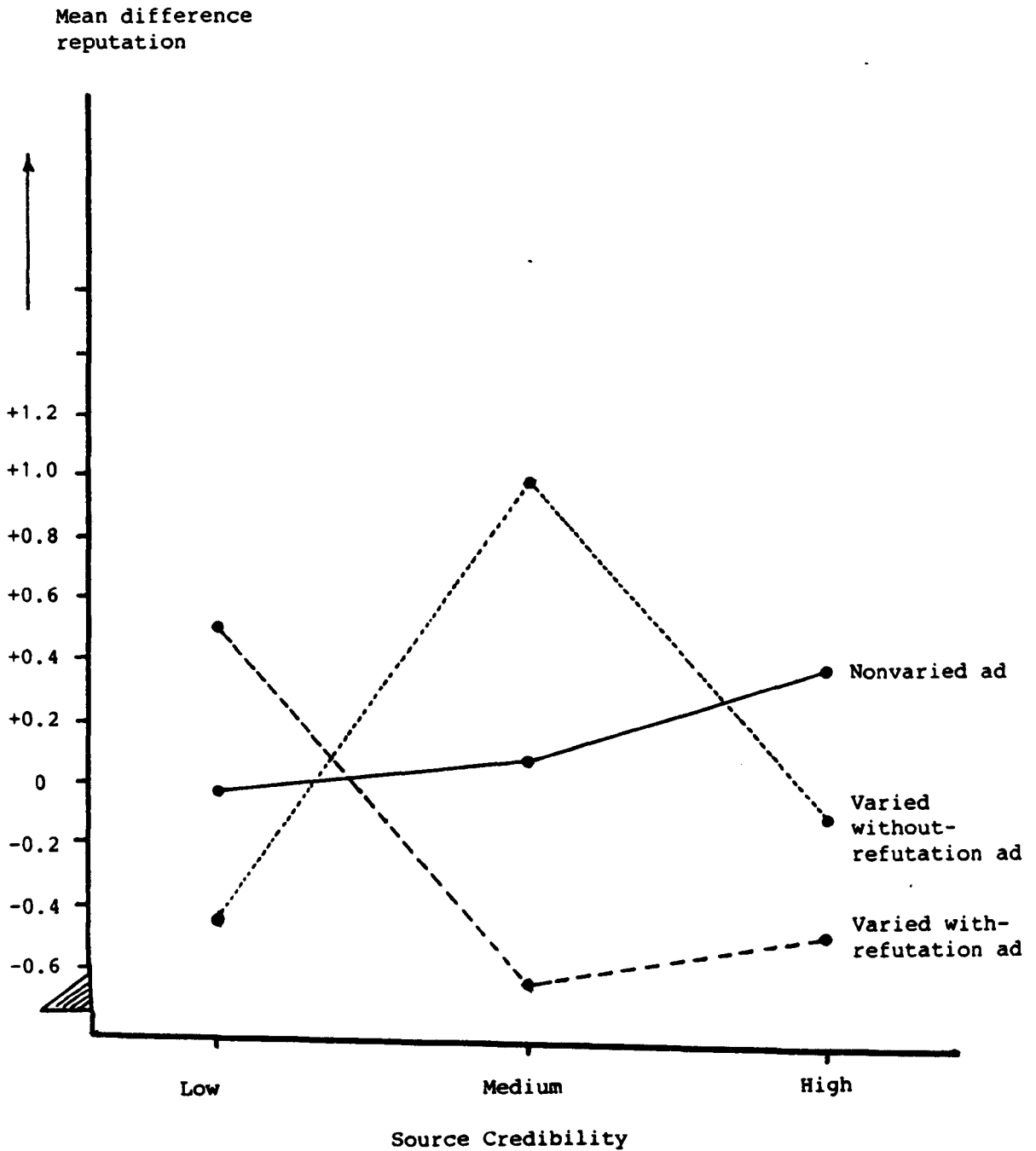


Table 4

Significant interaction effects of source credibility and message variation on the communicator's aggressiveness: actual and expected mean scores and residual

(First Session - Postcommunication)

		<u>Message Variation</u>		
		<u>Nonvaried</u>	<u>Varied without-refutation</u>	<u>Varied with-refutation</u>
<u>Source Credibility</u>	<u>Low</u>	4.65 ⁽¹⁾	4.35	4.29
		4.25 ⁽²⁾	4.38	4.22
		(+0.40) ⁽³⁾	(-0.03)	(+0.07)
	<u>Medium</u>	3.65	3.65	4.13
		3.93	4.06	3.90
		(-0.28)	(-0.41)	(+0.23)
<u>High</u>	3.89	5.00	3.56	
	4.10	4.23	4.07	
	(-0.21)	(+0.77)	(-0.51)	

F-ratio = 3.20

P < 0.05

Key: (1) Actual mean
(2) Expected mean
(3) Residual

Figure 4

Significant interaction effects of source credibility and message variation on the communicator's aggressiveness: plotted by mean differences

(First Session - Postcommunication)

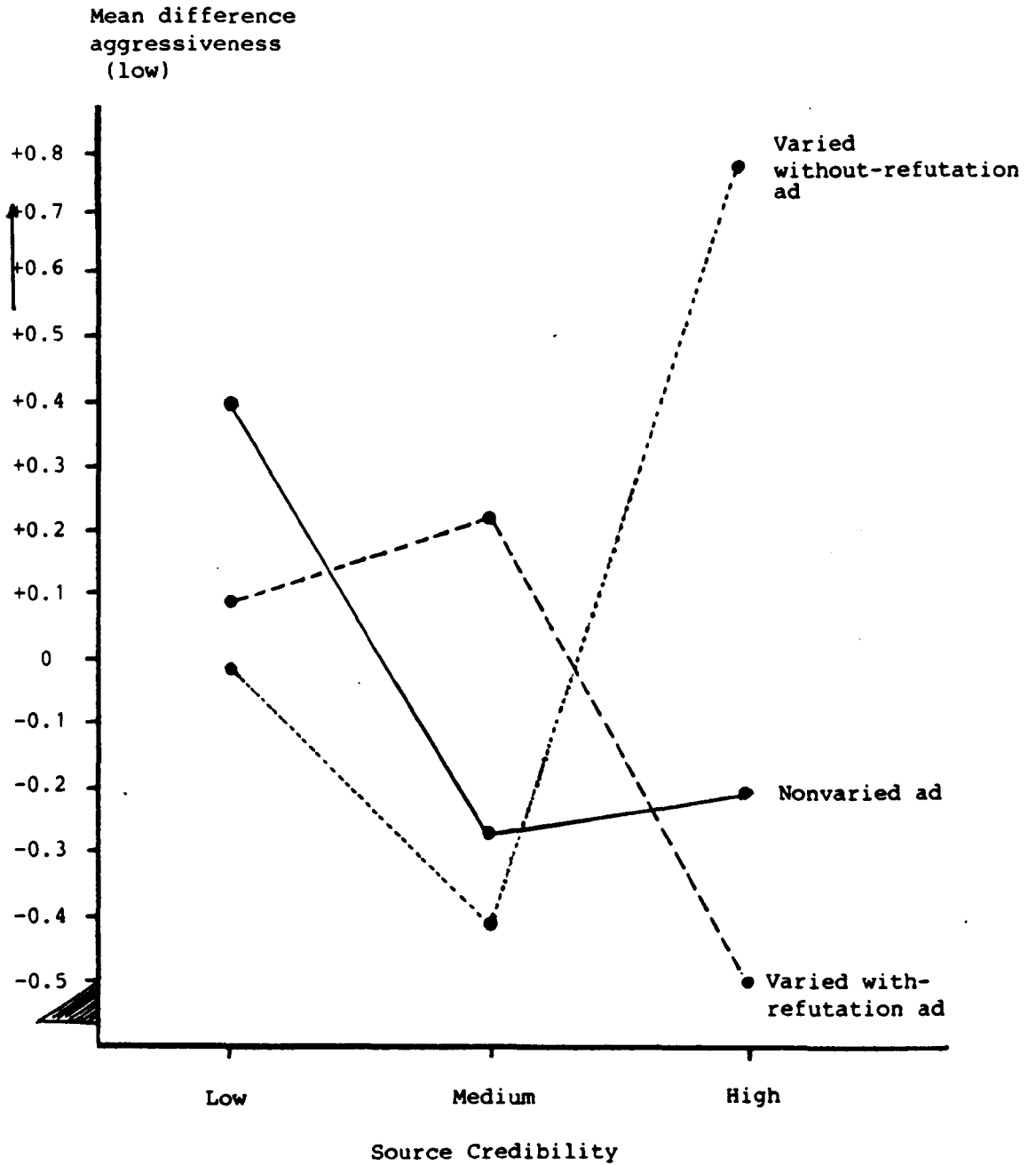


Table 5Significant interaction effects of source credibility and message variation on the communicator's training: actual and expected mean scores and residual

(First Session - Postcommunication)

		<u>Message Variation</u>		
		<u>Nonvaried</u>	<u>Varied without-refutation</u>	<u>Varied with-refutation</u>
<u>Source Credibility</u>	<u>Low</u>	5.65 ⁽¹⁾	5.71	5.94
		5.96 ⁽²⁾	5.93	5.85
		(-0.31) ⁽³⁾	(-0.22)	(+0.09)
	<u>Medium</u>	6.29	6.12	6.47
		6.22	6.20	6.12
		(+0.07)	(-0.08)	(+0.35)
<u>High</u>	6.50	6.50	5.44	
	6.16	6.13	6.05	
	(+0.34)	(+0.37)	(-0.61)	

F-ratio = 3.22

P < 0.01

Key: (1) Actual mean
 (2) Expected mean
 (3) Residual

Figure 5

Significant interaction effects of source credibility and message variation on the communicator's training: plotted by mean differences

(First Session - Postcommunication)

Mean difference
training

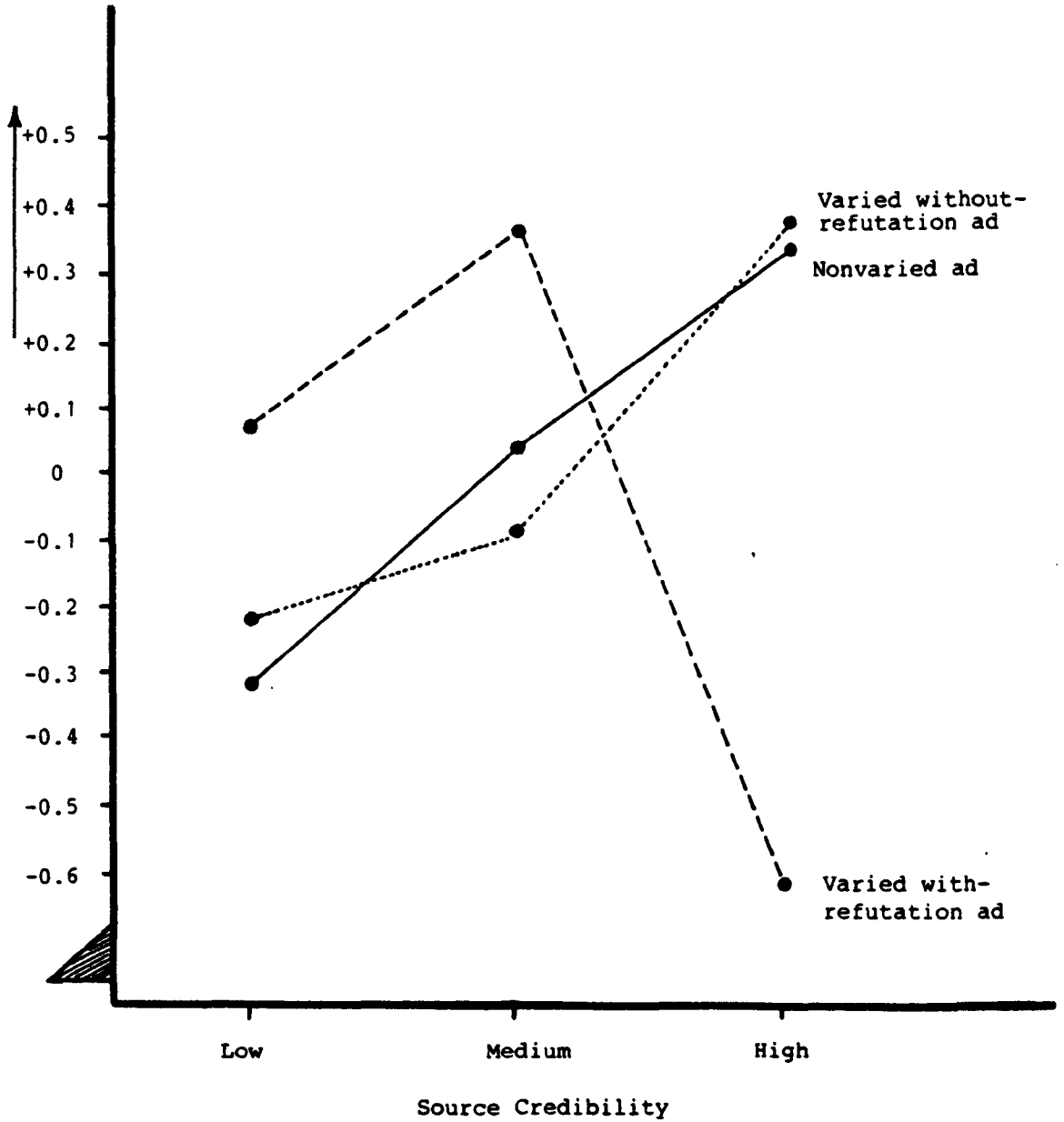


Table 6Significant interaction effects of source credibility and message variation on the communicator's experience: actual and expected mean scores and residual

(First Session - Postcommunication)

		<u>Message Variation</u>		
		<u>Nonvaried</u>	<u>Varied without-refutation</u>	<u>Varied with-refutation</u>
<u>Source Credibility</u>	<u>Low</u>	5.53 ⁽¹⁾	5.53	6.12
		5.78 ⁽²⁾	5.84	5.73
		(-0.25) ⁽³⁾	(-0.31)	(+0.39)
	<u>Medium</u>	5.76	5.71	5.80
		5.80	5.85	5.75
		(-0.04)	(-0.14)	(+0.05)
<u>High</u>	6.17	6.63	5.25	
	5.93	5.98	5.88	
	(+0.24)	(+0.65)	(-0.63)	

F-ratio = 2.48

P < 0.05

Key: (1) Actual mean
 (2) Expected mean
 (3) Residual

Figure 6

Significant interaction effects of source credibility and message variation on the communicator's experience: plotted by mean differences

(First Session - Postcommunication)

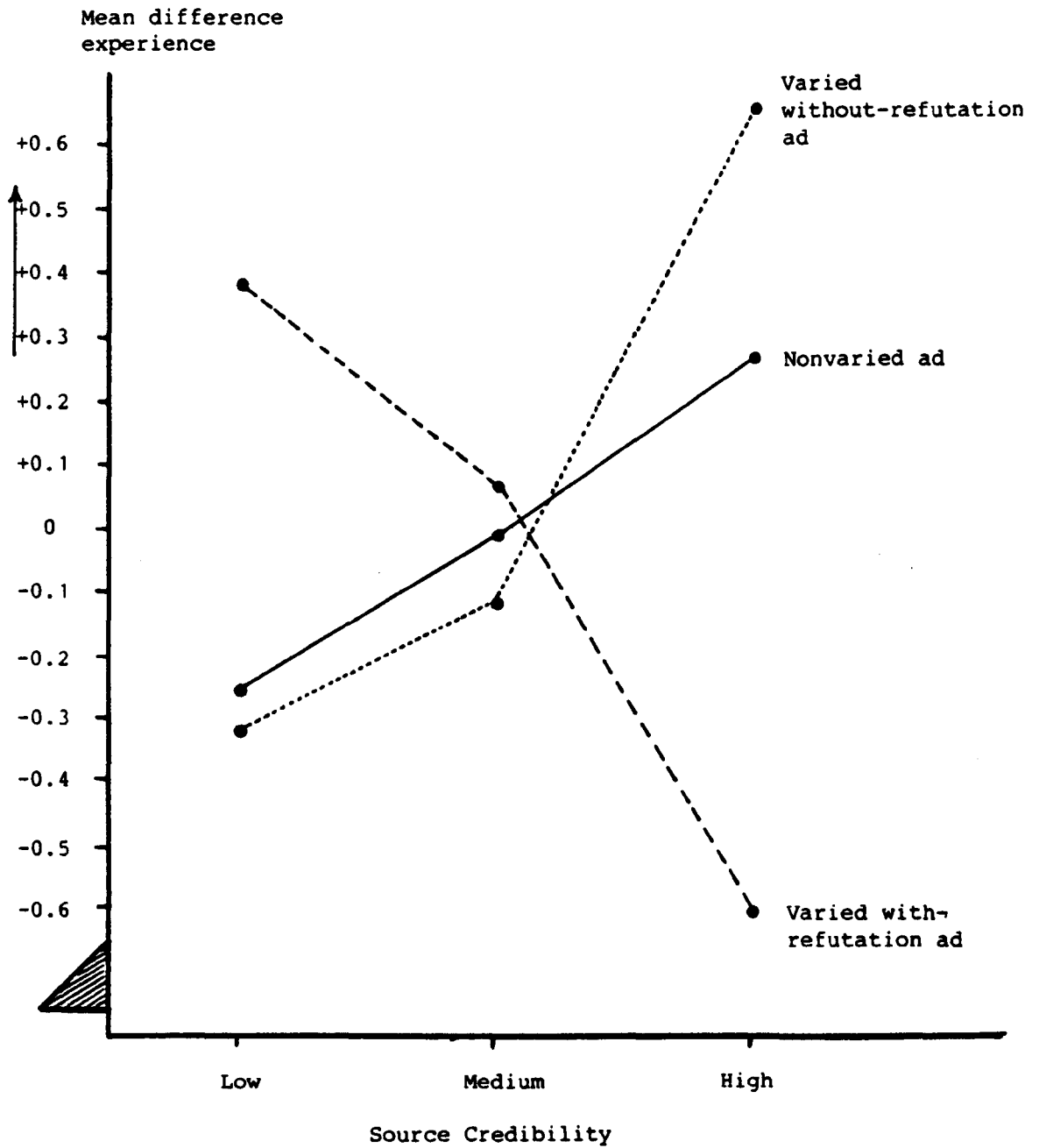


Table 7Significant interaction effects of source credibility and message variation on the subjects' attitude toward ATAI-C: actual and expected mean scores and residual

(First Session - Postcommunication)

		<u>Message Variation</u>		
		<u>Nonvaried</u>	<u>Varied without- refutation</u>	<u>Varied with- refutation</u>
<u>Source Credibility</u>	<u>Low</u>	40.06 ⁽¹⁾	35.71	38.47
		38.74 ⁽²⁾	38.53	37.38
		(+1.32) ⁽³⁾	(-2.82)	(+1.09)
	<u>Medium</u>	38.71	39.88	36.33
		38.90	38.69	37.53
		(-0.19)	(+1.19)	(-1.2)
<u>High</u>	39.44	41.50	35.06	
	39.05	38.84	37.69	
	(+0.39)	(+2.66)	(-2.63)	

F-ratio = 2.83

P < 0.05

Key: (1) Actual mean
 (2) Expected mean
 (3) Residual

Figure 7

Significant interaction effects of source credibility and message variation on the subjects' attitude toward ATAI-C: plotted by mean differences

(First Session - Postcommunication)

Mean difference
attitude toward ATAI-C

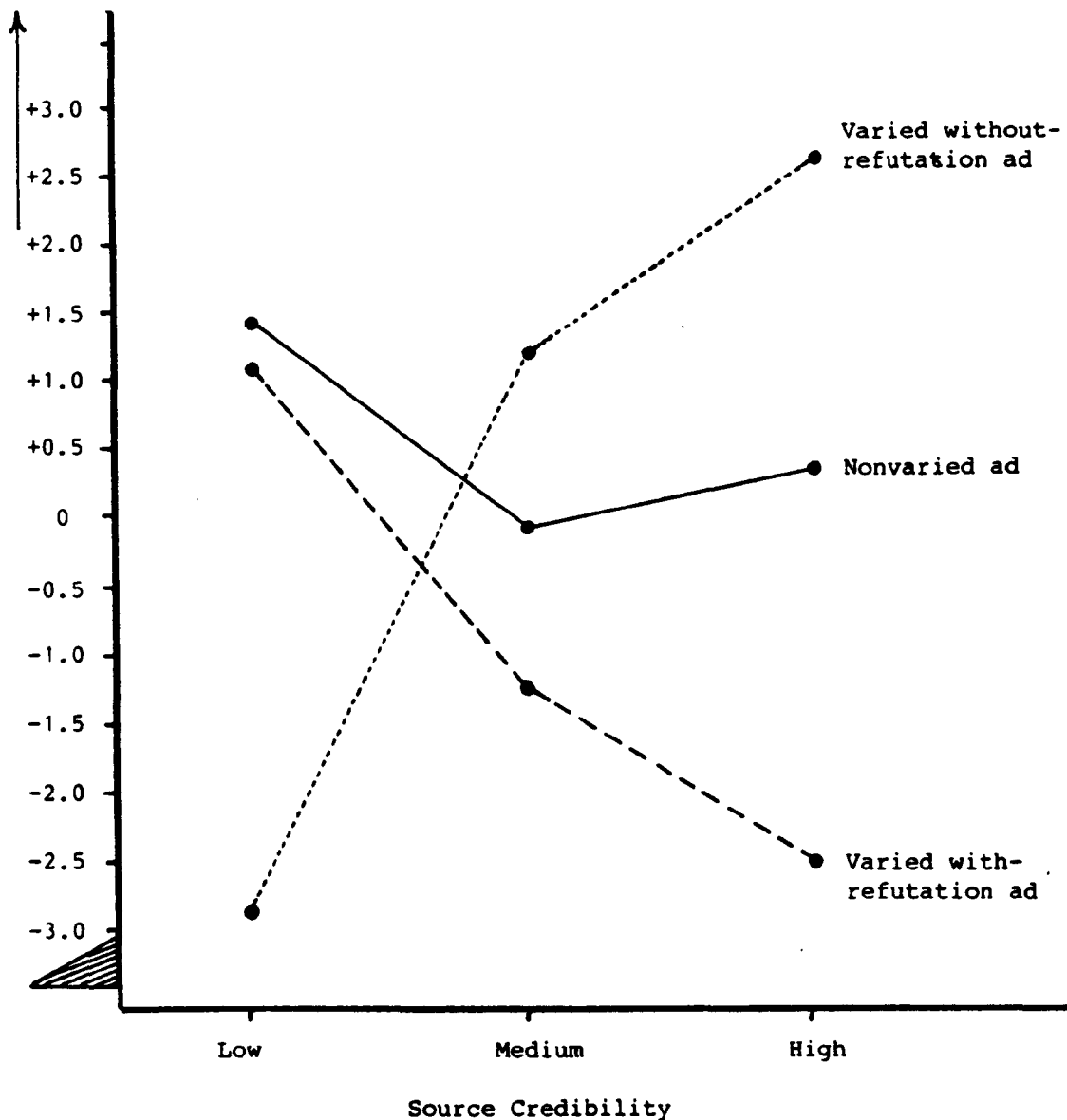


Table 8

Significant interaction effects of message variation and ownership of a pocket calculator on the subjects' intention to buy ATAI-C: actual and expected mean scores and residual

(First Session - Postcommunication)

		<u>Message Variation</u>		
		<u>Nonvaried</u>	<u>Varied without-refutation</u>	<u>Varied with-refutation</u>
<u>Ownership of the pocket Calculator</u>		4.24 ⁽¹⁾	4.45	4.59
	<u>Own</u>	4.32 ⁽²⁾	4.40	4.50
		(-0.08) ⁽³⁾	(+0.05)	(+0.09)
		3.50	1.00	4.50
	<u>Not Own</u>	3.96	4.05	4.15
		(-0.46)	(-3.05)	(+0.35)

F-ratio = 3.68

P < 0.05

Key: (1) Actual mean
(2) Expected mean
(3) Residual

Figure 8

Significant interaction effects of message variation and ownership of a pocket calculator on the subjects' intention to buy ATAI-C: plotted by mean differences

(First Session - Postcommunication)

Mean difference
intention to buy

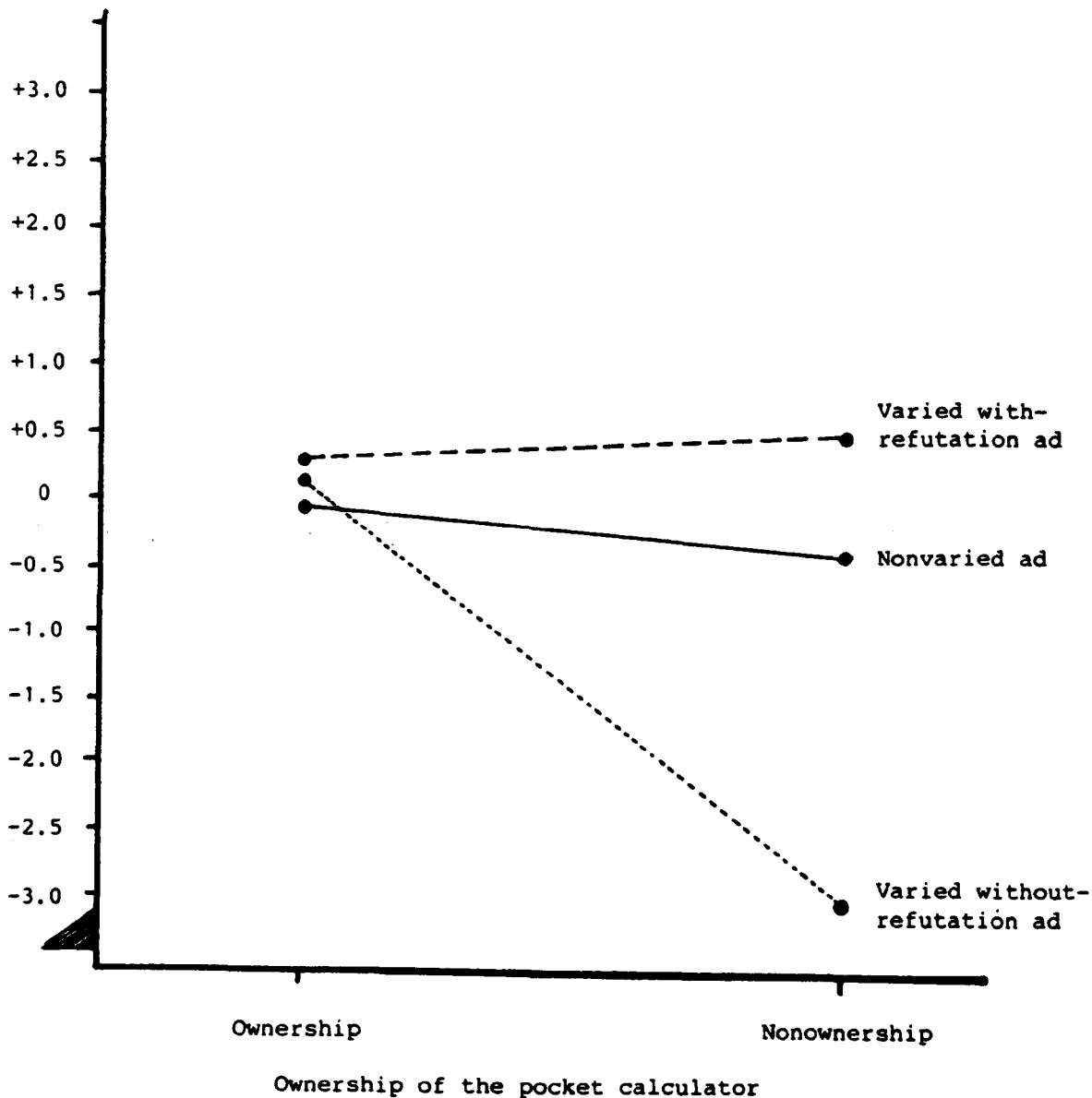


Table 9Significant interaction effects of source credibility and message variation on the impression of ATAI-C: actual and expected mean scores and residual

(First Session - Postcommunication)

		<u>Message Variation</u>		
		<u>Nonvaried</u>	<u>Varied without-refutation</u>	<u>Varied with-refutation</u>
<u>Source Credibility</u>	<u>Low</u>	4.76 ⁽¹⁾	4.41	5.36
		4.85 ⁽²⁾	4.76	5.24
		(-0.09) ⁽³⁾	(-0.35)	(+0.12)
	<u>Medium</u>	5.06	4.71	5.20
		4.99	4.90	4.73
		(+0.07)	(-0.19)	(+0.47)
<u>High</u>	5.33	5.56	3.94	
	5.01	4.92	4.75	
	(+0.32)	(+0.64)	(-0.81)	

F-ratio = 2.92

P < 0.05

Key: (1) Actual mean
 (2) Expected mean
 (3) Residual

Figure 9

Significant interaction effects of source credibility and message variation on the impression of ATAI-C: plotted by mean differences

(First Session - Postcommunication)

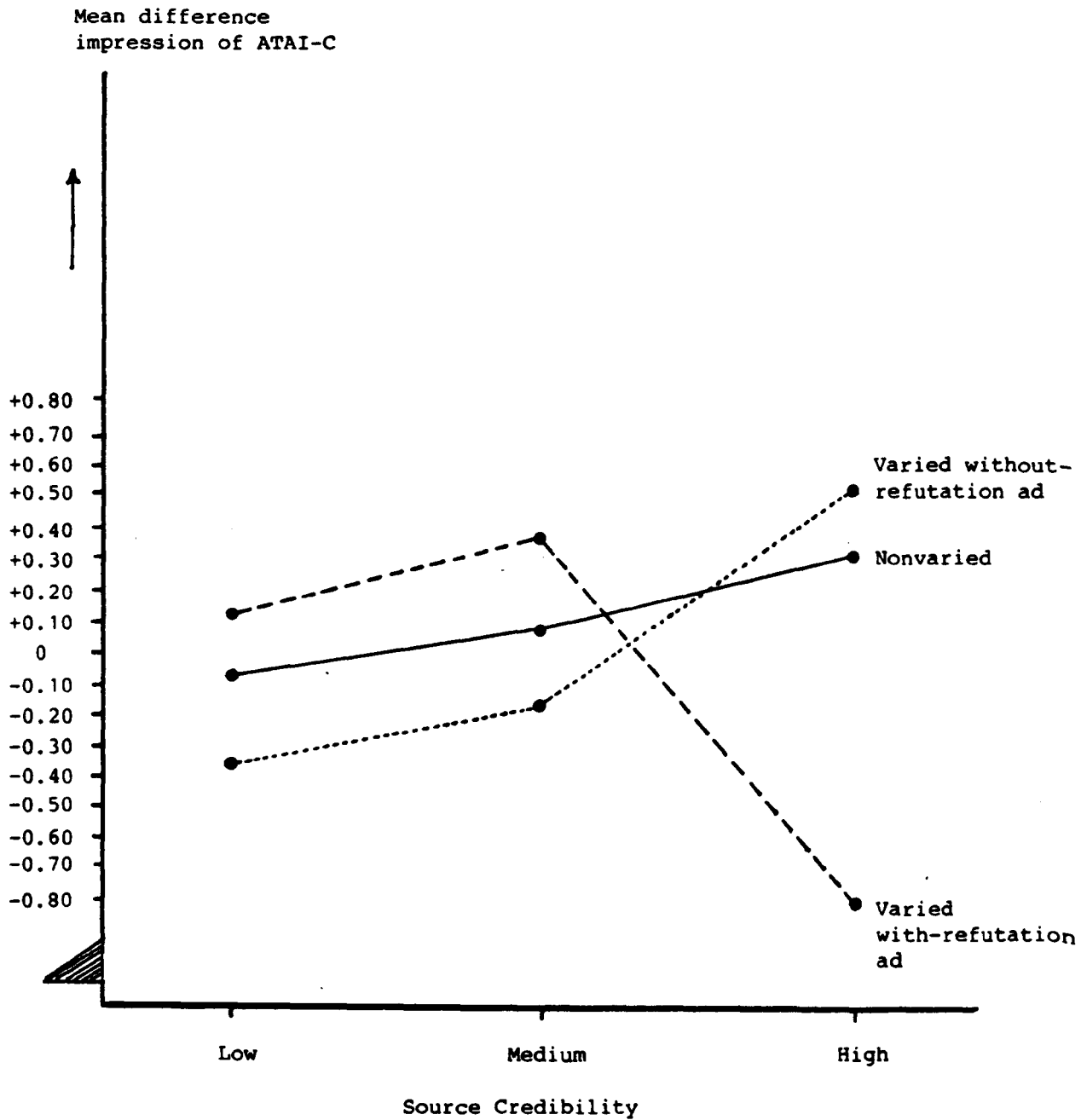


Table 10

Significant interaction effects of message variation and ownership of a pocket calculator on the attribution about ATAI-C: actual and expected mean scores and residual

(First Session - Postcommunication)

		<u>Message Variation</u>		
		<u>Nonvaried</u>	<u>Varied without-refutation</u>	<u>Varied with-refutation</u>
<u>Ownership of the pocket Calculator</u>	<u>Own</u>	5.04 ⁽¹⁾	4.84	4.61
		4.95 ⁽²⁾	4.86	4.69
		(+0.09) ⁽³⁾	(-0.02)	(-0.08)
	<u>Not Own</u>	5.50	7.00	3.75
		4.89	4.80	4.63
		(+0.61)	(+2.20)	(-0.88)

F-ratio = 3.63

P < 0.05

Key: (1) Actual mean
(2) Expected mean
(3) Residual

Figure 10

Significant interaction effects of message variation and ownership of a pocket calculator on the attribution about ATAI-C: plotted by mean differences

(First Session - Postcommunication)

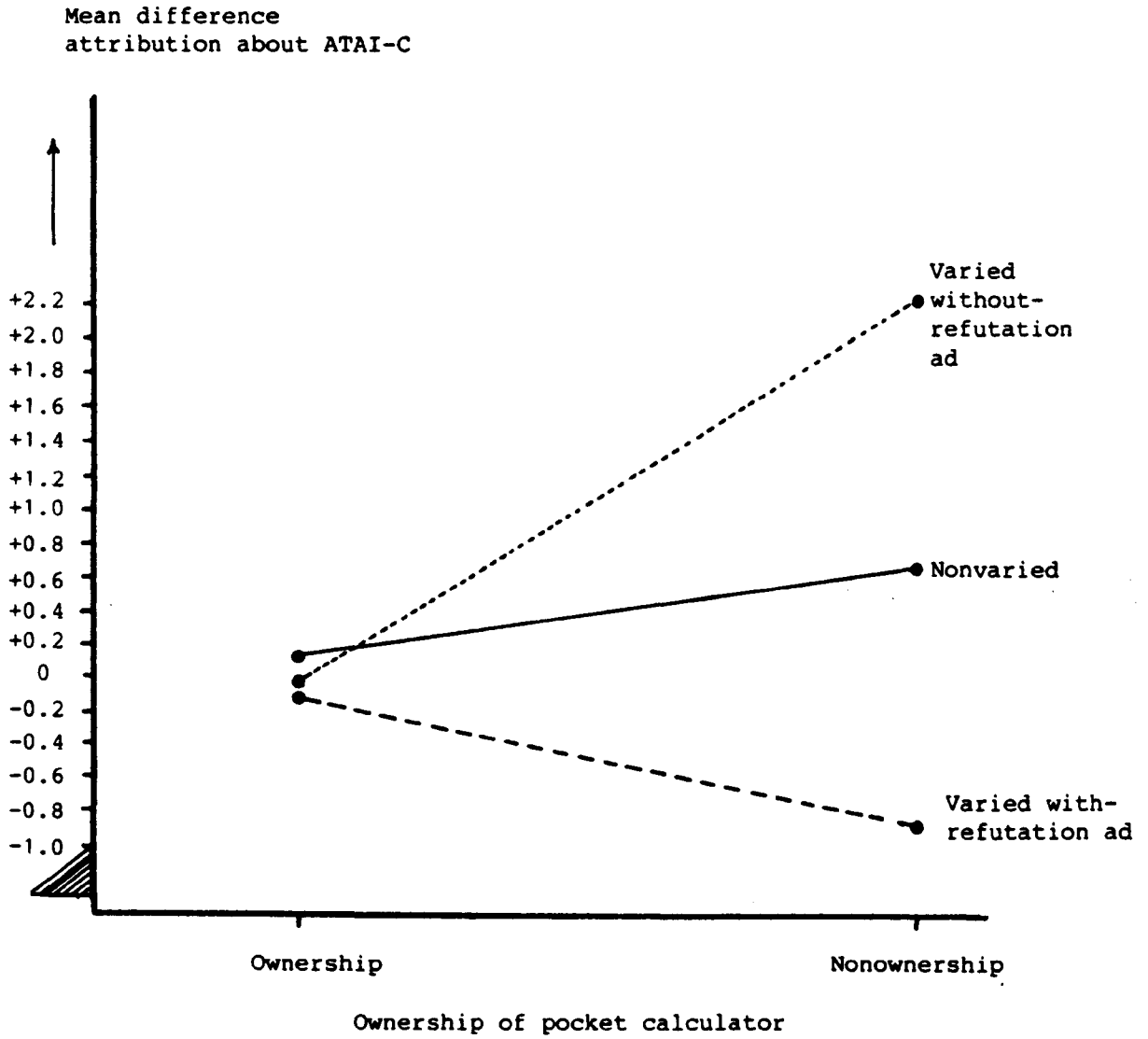


Table 11

Significant interaction effects of source credibility and message variation on the communicator's trustworthiness: actual and expected mean scores and residual

(Second Session - 10 days later)

		Message Variation		
		Nonvaried	Varied without- refutation	Varied with- refutation
<u>Source Credibility</u>	<u>Low</u>	4.94 ⁽¹⁾	4.59	5.59
		5.06 ⁽²⁾	5.07	5.03
		(-0.12) ⁽³⁾	(-0.48)	(+0.56)
	<u>Medium</u>	4.94	5.06	4.60
		4.98	4.99	4.95
		(-0.04)	(+0.07)	(-0.35)
<u>High</u>	5.33	5.69	4.81	
	5.18	5.19	5.15	
	(+0.15)	(+0.50)	(-0.34)	

F-ratio = 2.94

P < 0.05

Key: (1) Actual mean
(2) Expected mean
(3) Residual

Figure 11

Significant interaction effects of source credibility and message variation on the communicator's trustworthiness: plotted by mean differences

(Second Session - 10 days later)

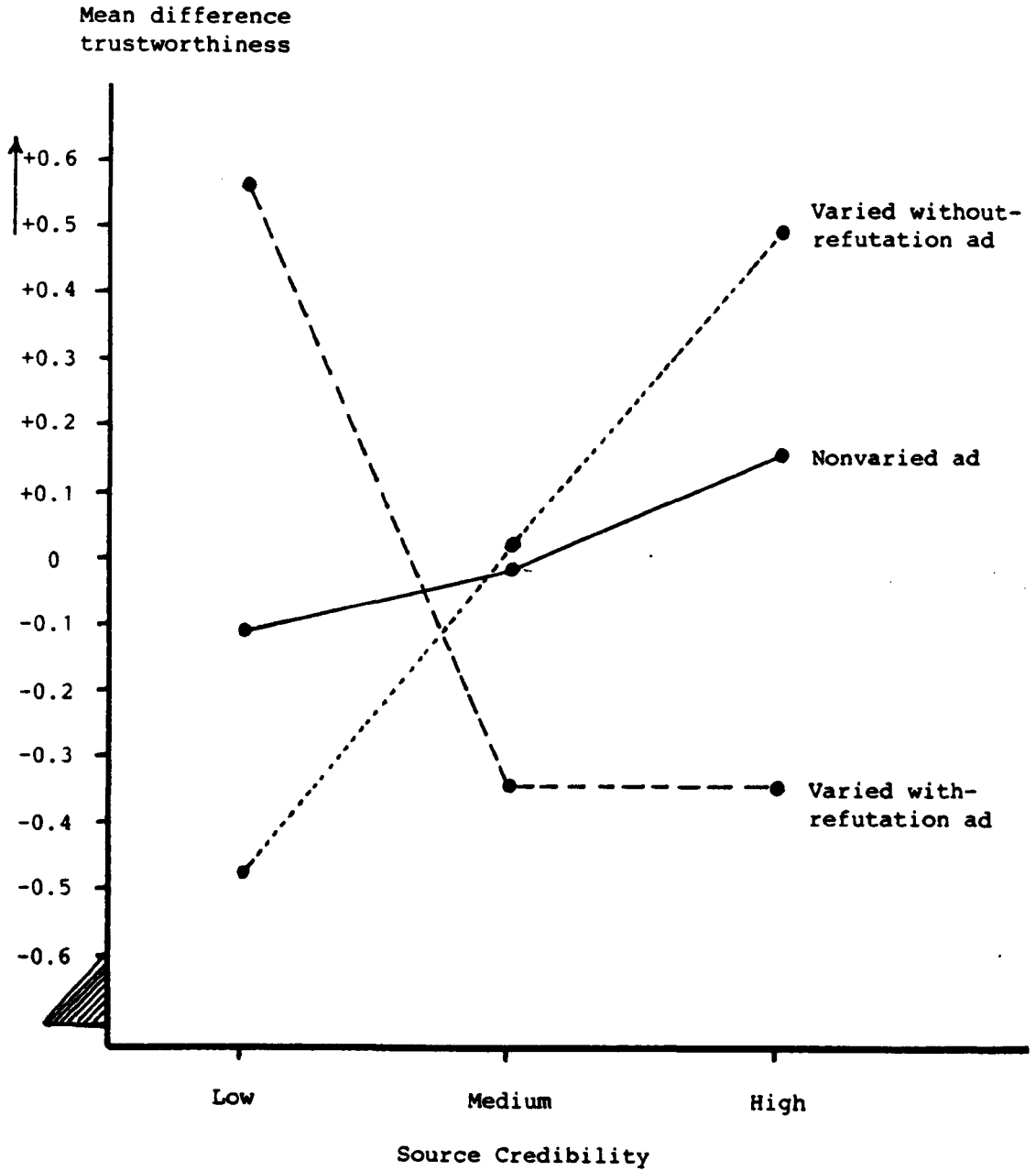


Table 12Significant interaction effects of source credibility and message variation on the communicator's training: actual and expected mean scores and residual

(Second Session - 10 days later)

		<u>Message Variation</u>		
		<u>Nonvaried</u>	<u>Varied without- refutation</u>	<u>Varied with- refutation</u>
<u>Source Credibility</u>	<u>Low</u>	5.65 ⁽¹⁾	5.18	6.00
		5.78 ⁽²⁾	5.71	5.77
		(-0.13) ⁽³⁾	(-0.53)	(+0.23)
	<u>Medium</u>	6.06	5.65	6.00
		5.92	5.85	5.91
		(+0.14)	(-0.20)	(+0.09)
<u>High</u>	6.11	6.63	5.73	
	6.05	5.98	6.04	
	(+0.06)	(+0.65)	(-0.31)	

F-ratio = 2.47

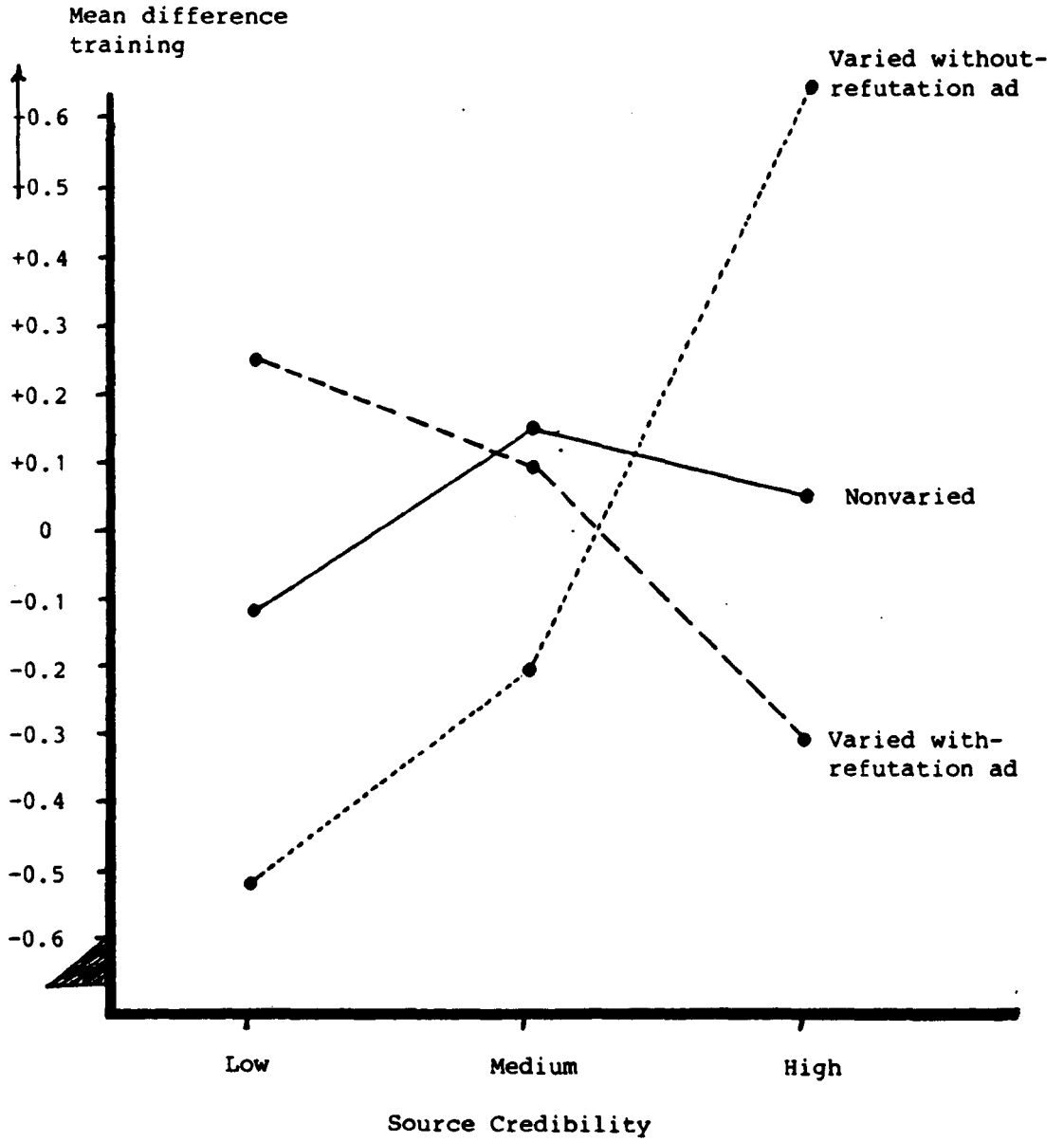
P < 0.05

Key: (1) Actual mean
 (2) Expected mean
 (3) Residual

Figure 12

Significant interaction effects of source credibility and message variation on the communicator's training: plotted by mean differences

(Second Session - 10 days later)



APPENDIX E

BIBLIOGRAPHY

BIBLIOGRAPHY

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