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**“STUNNING AND MEMORABLE OR JUST CONFUSING”: THE ROLE OF
DISTRACTION IN THE SCHEMATIC PROCESSING AND MAPPING OF
INTERNET MARKETING COMMUNICATIONS**

by

SHARON M. SMITH

**A dissertation submitted to the Graduate Faculty in Business in partial fulfillment of the
requirements for a degree of Doctor of Philosophy, The City University of New York**

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Abstract

“STUNNING AND MEMORABLE OR JUST CONFUSING”: THE ROLE OF DISTRACTION IN THE SCHEMATIC PROCESSING AND MAPPING OF INTERNET MARKETING COMMUNICATIONS

by

Sharon M. Smith

Adviser: Professor Stephen Gould

Extensive research supports the notion espoused by Schema Theory, that moderately incongruous stimuli are best remembered and most preferred than either congruous or extremely incongruous stimuli. Does incongruity always yield a more positive outcome, or is it possible that the effort involved in processing the incongruity might distract the individual from the ad content? Wouldn't distraction be even more likely when processing on-line content than off-line content? Might the novelty of the media, as well as the novelty of the stimuli, challenge the user's ability to engage in meaningful processing, rendering them confused? This dissertation makes a number of contributions including:

- 1) Proposing a systematic approach for testing the predictions of Schema Theory in the computer-mediated environment via mapping strategies,
- 2) Offering a theoretical framework for the study of the role of distraction in the processing of internet marketing communications; more specifically, a mediation model is proposed involving distraction,
- 3) Offering a framework for considering the effect of involvement in the process, more specifically, a moderating role of task involvement is proposed,

4) Explicitly exploring distraction as an outcome variable.

An experimental study was used to test the predicted relations, specifically the relationship between distraction and a number of variables, including congruity, memory, site attitude, brand attitude as well as purchase intention and the role of task involvement was examined. The interest in the results goes beyond just the support, or lack thereof, of various hypotheses to a number of interesting findings, not themselves the subject of any hypothesis.

Firstly the empirically observed off-line relationship between congruity and preference may not hold in the hypermedia computer-mediated environment. Secondly, distraction mediates the effect of congruity on attitude towards the site and brand as well as purchase intentions. Thirdly, distraction moderates the effect of congruity on attitude towards the site. Fourthly, site involvement has main effects on distraction, attitude towards the site and brand as well as a moderating effect on the relation between congruity and distraction. A variety of theoretical and managerial implications related to the findings are discussed as well as limitations and directions for future research.

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TABLE OF CONTENTS

Chapters		
1	Introduction	1
2	Literature Review	7
	Research on Schema	7
	Research on Distraction	20
	Schema and Computer-Mediated Environment	23
	Summary	27
3	Hypothesis Development	28
	Distraction as a Mediator	30
	Task Involvement	33
	Distraction – Main Effect on Attitude and Intention	35
	Summary	36
4	Methodology	38
	Design	38
	Subjects	39
	Stimuli	40
	Pretests	42
	Dependent Measures	44
	Covariates	46
	Summary	48
5	Results	49
	Manipulation Check	49
	Preliminary Analysis	53
	Mediation Model – Distraction as a Mediator	55
	Test of Moderation Effect	64
	Task Involvement - Main Effect	66
	Distraction – Main Effect on Attitude and Intention	69
	Summary	73
6	Discussion	74
	Theoretical Implications	76
	Managerial Implications	83
	Limitations	86
	Directions for Future Research	88
	Summary	89

Appendices

A	Recruitment Script	90
B	Sample of Experimental Stimuli and Instructions	92
C	Pretest Surveys	137
D	Final Survey	151
E	Descriptives and Pearson Correlation Coefficients	166
F	Effect of Congruity on Attitude and Intention	172
G	Mediation Role of Distraction: Effect on Congruity/Attitude And Intention Relations	179
H	Moderating Role of Distraction on Congruity/Attitude Relation	197
I	Role of Site Involvement	210

References	241
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Tables

1	Site Involvement and Congruity Manipulation	43
2a	Means of Congruity Measure	50
2b	ANOVA Table for Manipulation Check	51
2c	Contrast Coefficients and Tests	52
3a	Mean of Distraction Measures	56
3b	Regression of Distraction on Mapping Level	57
3c	Coefficients	57
4a	Mean of Memory Measures	58
4b	Regression of Memory on Mapping	59
4c	Coefficients	60
5a	Regression of Memory on Distraction	61
5b	Coefficients	61
6a	Regression of Memory on Mapping and Distraction (Free Recall)	62
6b	Coefficients (Free Recall)	63
7a	Regression of Memory on Mapping and Distraction (Mean Aided Recall)	63
7b	Coefficients (Mean Aided Recall)	64
8a	Mean of Distraction by Mapping Level at Low and High Task Involvement	67
8b	ANOVA Table of Task Involvement Effect on Mapping/Congruity Relation	68
8c	ANOVA Table of Task Involvement Effect on Distraction/Memory Relation (Free Recall)	68
8d	ANOVA Table of Task Involvement Effect on Distraction/Memory Relation (Mean Aided Recall)	69
9	MANOVA of Effect of Distraction on Attitude and Intention	71
10	Results of Hypothesis Testing	73

Figures

1	Mediation Model	32
2	Moderation Model	35
3	Mean of Congruity Measure by Mapping Level	50
4	Mean of Distraction Measures by Mapping Level	56
5a	Mean of Free Recall by Mapping Level	58
5b	Mean of Mean Aided Recall by Mapping Level	59
6a	Mean Distraction Measure by Mapping at Low Task Involvement	67
6b	Mean Distraction Measure by Mapping at High Task Involvement	67

CHAPTER I

INTRODUCTION

Academics and practitioners are aware of the decline in consumers' ability to remember the last advertisement viewed (Bogart and Lehman, 1983) from 18% in 1965 to 12% in 1974 and 7% in 1981. Research (Krugman, 1988) suggests that people are often unwilling to attend to advertising material as evidenced by channel switching and other diversions or distractions. The academic and commercial perspective is that viewers must be captive to the first few seconds of an ad in order to be selective. Advertisers realize that with the clutter of stimuli competing for attentional resources they must use attention-engaging devices to focus their audience's attention on their ad. It is common to begin an ad with a dramatic, novel or otherwise unexpected visual and/or auditory stimulus. There is theoretical as well as empirical support for the use of this technique to enhance recall and preference. More specifically, Schema Theory suggests that moderately incongruous stimuli are best remembered and most preferred than either congruous or extremely incongruous stimuli (Fiske, 1982; Mandler, 1982; Meyers-Levy and Tybout, 1989; Meyers-levy, Louie and Curren, 1994; Alden Mukherjee and Hoyer, 2000). Is it possible that the effort involved in processing the incongruity might distract the individual from the advertising message content?

Research by Lord and Burnkrant (1993) suggested that attention-engaging devices (such as incongruent stimuli) might divert attention from the ad even in Television ads. Wouldn't distraction be even more likely when processing on-line content? Schema

Theory is supported by numerous studies, but all those studies were conducted off-line. Schema Theory has never been tested on-line. Iacobucci (1998) suggests that novelty may not be desirable in the computer-mediated environment. Coyle (2000) argues that the novelty of the media, as well as the novelty of the stimuli, challenge the ability of the user to engage in any meaningful processing. It certainly seems valuable to investigate whether incongruent stimuli result in distraction and the attitudinal and intentional consequences that follow.

This dissertation serves to fill the gap in the Schema literature by testing its predictions in the computer-mediated environment. This study makes a further contribution by expanding knowledge of congruity. Distraction and congruity have been theoretically (Meyers-Levy and Tybout, 1989; Meyers-Levy, Louie, and Curren, 1994) as well as empirically linked (Nelson, Duncan, and Kiecker, 1993). The processing of incongruent stimuli leads to distraction, which has numerous attitudinal and intentional consequences. Distraction is proposed to account for (at least in part) the non-monotonic relationship between levels of congruity and memory, that is, it mediates the effect of congruity on memory. Distraction, by interfering with an individual's ability to process information is hypothesized to have a negative effect on memory, which is most evident at high levels of involvement. This represents a significant contribution to the schema literature and facilitates theory expansion due to the introduction of the distraction construct. Distraction's effect on attitudes and intentions is examined in this study, further expanding the distraction literature.

The exploration of the distraction construct adds to general knowledge, but more specifically, it extends the knowledge of the role of distraction in the processing of

technology-based messages. The marketing scholars have investigated the distraction hypothesis from an applied, managerial perspective; the focus has been distraction's effects on advertising effectiveness. Gardener (1966; 1970) found that distraction did not affect attitude change but dramatically influenced advertising recall. Another study found significant distraction effects on product and brand recall (Venkatesan and Haaland, 1968); while Bitter (1972) found that distraction's effect was not significant for attitude change but was significant for learning. Existing literature on distraction's effect on recall is not quite so clear. In one study (Osterhouse and Brock, 1970), no effect was observed. On the other hand, Houston, Childers and Heckler (1987) demonstrated an increase in recall. What is clear, is that distraction occurs in an infinite variety of forms as part of the information processing behavior (Nelson, Duncan, and Kieker, 1993) and therefore warrants some investigation in current marketing literature. This dissertation seeks to extend the knowledge of the effect of distraction by clarifying its effect on memory, and examining its relation to attitude towards the site and the brand, as well as purchase intention.

Previous research on distraction has examined its effect on a number of variables (ad effectiveness, attitude change, learning, as well as ad, product and brand recall) where distraction has been manipulated but not measured. The effective measurement of distraction and its investigation as an outcome rather than a predictor represents another contribution of this work. Distraction may well be an important variable in understanding how consumers behave generally, but more specifically, may explain their navigation behavior in a computer-mediated environment. Given the notion of the flow state and that computer-mediated transactions are predicted to dominate the future, distraction

research specifically in the hypermedia computer-mediated environment (CME) is extremely relevant. The hypermedia CME is defined by Hoffman and Novak (1996, p. 53) as a “dynamic distributed network, potentially global in scope, together with associated hardware and software for accessing network, which enables consumers and firms to (1) provide and interactively access hypermedia content (i.e. machine interactivity) and (2) communicate through the medium (i.e. person interactivity).” This implies that the traditional primary relationship between sender and receiver, is now transcended by the mediated environment with which they both interact. Accordingly, “information or content is not merely transmitted from sender to receiver; instead mediated environments are created and experienced” (Steuer, 1992, p78)!

Schema Theory is believed to provide a valuable way to consider hypertextual phenomena (Landow, 1997). Research by Coyle and Gould, (2002) find empirical support for the application of schema to this new media. More specifically, that consumers’ off-line experiences inform their on-line experiences. Consumers are posited to construct everyday narratives of virtual and real phenomena on an interpenetrating basis (Gould and Lerman, 1998). Users are thought to go back and forth between the two realms forming perceptions, interpretations, and schema concerning the internet and the off-line reality. Although the web retains some novelty, there are strong links to other aspects of life. One web-based feature available to website designers is mapping. Mapping is the relationship between an object’s controls, the controls, the controls’ movements, and the results of activating the controls (Norman, 1990). Natural mapping is most effective and involves “taking advantage of physical analogies and cultural standards,” and is believed to “lead to immediate understanding” (Norman, 1990, p. 23).

Technological limitations make real-world mapping impractical for most Internet users, but the use of metaphors is an appropriate alternative (Steuer, 1992). Mapping is also a learning process via analogical transfer, where product and procedural knowledge is transferred from the familiar to the less familiar (Gregan-Paxton and John, 1997). Mapping strategies is proposed to be a useful tool in operationalizing congruity in this context (CME). By examining the relation between Schema Theory and mapping strategies, the off-line information processing theory is shown to be relevant to the understanding of phenomena in the computer-mediated environment.

The role of motivation and involvement in information processing has been well documented (MacInnis and Jaworski, 1989; Batra and Ray, 1985, Greenwald and Leavitt, 1984; Mitchell, 1981; Petty and Cacioppo, 1986; Rossiter and Percy, 1985). Park and Young (1986) examined the effect of type and level of involvement on distraction, and established the moderating effect of involvement on distraction (another study where distraction was manipulated but not measured). This paper extends the theoretical basis for the moderating influence of involvement on information processing and its outcome. More specifically task involvement by affecting the amount of attention paid to an image, affects the extent to which distraction occurs. Task involvement affects the extent to which distraction occurs in the processing of incongruencies and an interaction effect is proposed with respect to memory. Since task involvement is theorized to affect the direction and strength of the relation between the independent and dependent variables, a moderating effect is proposed.

This dissertation attempts to examine a number of important issues. It will examine the relevance of an off-line theory and concepts to the Hypermedia computer-mediated environment and on-line phenomena. More specifically, the relation between Schema Theory, Distraction and Mapping is explored. The paper seeks to clarify the effect of distraction on memory and to contribute towards the body of knowledge on distraction by specifically considering it as an outcome variable. A mediational model is proposed involving distraction. The effect of task involvement is explored, including the proposed moderating effect on congruity and distraction. Finally, the study examines the attitudinal and intentional consequences of distraction, by looking at its effect on site and brand attitude as well as purchase intention.

The next chapter reviews the literature in the area of Schema and distraction. This review forms the basis for a series of hypotheses predicting the role of distraction in the processing of technology-based communications, which is the subject of Chapter III. Chapter IV describes the methodology used to test the proposed hypotheses and Chapter V reports the results of the empirical study. Finally, the theoretical and managerial implications, limitations of the study, and directions for future research are discussed in Chapter VI. The Appendix includes a variety of material to supplement the chapter discussions, and references are made throughout the chapters to alert the readers to the relevant materials.

CHAPTER II

LITERATURE REVIEW

RESEARCH ON SCHEMA

Rumelhart (1980) defines schemata as “knowledge structures that are the building blocks of cognition.” Although schema is the most broadly accepted term, a number of similar terms have been used to describe knowledge structures; “frames” (Minsky, 1975; Winograd, 1975), “scenes and scenarios” (Fillmore, 1977), “scripts” (Abelson, 1975), “gestalts” (Lakoff, 1977), “active structural networks” (Rumelhart and Norman, 1975), and “memory organization packets” (Schank, 1980).

Bettman (1979) defines schema as cognitive structures representing one’s expectation about a domain; while Mandler (1982) refers to it as some stored mental representation. Schemata are conceptual abstractions that mediate between stimuli received and behavioral response (Wallace, 1970). They allow for the construction of interpretation of experience; and have the capability to evaluate their own goodness-of-fit to elements in the environment and thereby account for them (Rumelhart, 1980). Schemata are thought to include not only knowledge and beliefs but also affect (Fiske and Pavelchak, 1984). It is therefore the basis of all human information processing such as perception, comprehension, categorization and planning, recognition and recall, and problem solving and decision-making (Rumelhart, 1980). Since not all stimuli can be stored in memory, schemata are employed to provide a general impression of the whole, to construct or reconstruct the probable details. One uses the term “probable details”

because of the recognition that schema may omit much detail or include more information than is contained in the stimulus (Hastie, 1981).

Casson (1983) in his review of schema in cognitive science, noted that schemata occur at differing levels of abstraction. At the relatively low levels there are schemata for perceiving geometric shapes, colors, faces, etc., while at the higher level there are schemata for comprehending complex activities and events.

Schema, as knowledge representation may be thought of as a network of nodes and relations. They are located in the memory, and can be described as having a complex hierarchical structure. Schemata have an intricate micro-structure as well as an elaborate macro-structure. At the micro-level, a schema generally includes a number of embedded sub-schemata as constituent parts, each of which interacts with elements in the environment (Casson, 1983). More specifically, schemata are organized hierarchical structures, at the highest levels general concepts are represented, at successively lower levels more and more specific concepts are represented. At the very lowest level, are atomic or primitive concepts that are components of knowledge that can not be further broken down (Rumelhart, 1980). Schemata are sequentially organized, as such changes over time or location, causal relations and sequencing of stages or actions in events can be represented by ordered sub-schemata embedded in a schema (Minsky, 1975).

At the more macro-level, schemata are also inter-linked with other schemata to form extensive networks of inter-relations. In a case where the schema for Nike running shoes is evoked certain inferences can be made which allow the subject to recall far more than the information that was provided in the stimuli. This evoked schema is linked to other schemata such as feelings of pride or exhaustion after a run. The Nike running shoe

schema is also linked to many other schemata including other Nike brands, famous athletic figures who use their products, athletes in general, athletics where Nike brands are likely used and athletics in general. The notion of the network of nodes and relations is commonly used to describe the micro-structure of schema.

A review of the memory literature and specifically how memory is organized seems appropriate in the explication of the structure of schema. One recalls that an organized memory structure is a basic assumption of Schema Theory. Memory is theorized to consist of the Short Term Memory (STM) and the Long Term Memory (LTM). The STM is temporary with limited capacity, it is the site where processing takes place. LTM is considered permanent with unlimited capacity and information is stored there after processing. The Associative Network Model proposed by Anderson (1983) suggests that the LTM is made up of nodes (where concepts and information are stored) and links or relations (connecting mechanism which vary in strength). Spreading Activation is the phenomenon which describes the diffusion of stimuli through the links and nodes when the threshold level of activation is exceeded; this results in the retrieval of information from the node. The strength of association between activated nodes and linked nodes will determine spreading activation and which information is retrieved (Collins and Loftus, 1975; Raaijmakers and Shiffrin, 1981; Ratcliff and McKoon, 1985). This parallels the idea of a particular schema being evoked by a specific stimuli which eventually leads to the activation of alternate schemata or knowledge structures; the particular schemata activated will depend on the strength of the association between the evoked schema and these other schemata.

Marketing scholars most frequently refer to Mandler's (1982) work on Schema Theory. He suggested that moderate incongruity between a stimulus and an individual's schema leads to more positive responses than those elicited by either schema congruity or extreme incongruity. In the development of this hypothesis, Mandler (1982) reasons that although people favor objects that conform to their expectations and allow predictability, such objects are not particularly noteworthy and do not prompt extensive cognitive elaboration. Incongruity, in general, requires both cognitive elaboration and cognitive effort in order to resolve the incongruity. The effort expended under extreme incongruity, however, is greater than that under moderate incongruity since extreme incongruity requires fundamental changes in cognitive structure for resolution to occur. Thus, in the absence of such changes, extreme incongruity typically elicits more negative evaluations than does moderate congruity.

Within a consumer context, the non-monotonic relationship between schema congruity and evaluation has been linked empirically to brand preference and recall for both new brands (Meyers-Levy and Tybout, 1989) and brand extensions (Meyers-Levy, Louie and Curren, 1994). That is, the elaboration occurring under moderate incongruity encourages more favorable brand evaluations and higher brand recall than would occur under either congruity or extreme incongruity.

Schema have been shown to have a profound effect on the processing of new information (Sujan and Bettman, 1989). The idea of new information evoking a particular schema and this notion of congruity/incongruity or the nature of the fit between the incoming information and the well-defined existing schema is not without basis. In fact, it is implicit in Rumelhart's (1980) account that expectations (schema) are combined

with data (incoming information) to construct interpretations of experiences. Schemata are judged to account for elements in the environment when there is goodness-of-fit between expectation and data.

This notion of congruity/incongruity requires some exploration, as it plays such a central role in Schema Theory. Mandler (1982) refers to the extent that structural correspondence is achieved between the entire configuration of attribute relations associated with an object, such as a product, and the configuration specified by the schema. In this context, one considers congruity/incongruity to be a continuum describing the degree or nature of fit between product information and product category schema. Congruity is represented by a match, while incongruity involves some kind of mismatch.

Two fundamental processes for coping with incongruent information exist - assimilation and accommodation (Rumelhart and Norman, 1972). Piaget (1970) uses assimilation to refer to the integration of “ external elements into evolving or completed structures,” whereas accommodation refers to the “ modification of an assimilatory scheme or structure by elements it assimilates.” Mandler’s (1982) interpretation of Piaget implies that assimilation provides cognitive continuity and integration, while accommodation allows cognitive change. Simply, assimilation allows for the integration of new information into existing schema, whereas accommodation leads to substantial modification of existing schema or new schema formation. In the case of congruity there will be easy assimilation; with extreme incongruity there will be extensive or even unsuccessful accommodation. These concepts are consistent with ideas expressed in the Schema Theory. Taylor and Crocker (1981) suggested that schemata are extremely

resistant to change based on new information. Elaboration takes place in an effort to resolve the incongruity; that is, an effort is made to fit the new information into the existing schema. For the purpose of this paper, elaboration refers to the cognitive processing aimed at resolving incongruity. It includes thoughts generated that seek to enhance the fit between the stimuli and the evoked schema.

The inverted-U-shaped relationship, typical of the Schema Theory, has been observed in a variety of domains including people's interpersonal preferences (Snyder and Fromkin, 1980; Fiske, Beattie, and Milberg, 1981), preferences for musical compositions (Vitz, 1966), and infants' preferences for objects (Rheingold, 1985). More recently the non- monotonic relationship has been linked to brand preference and recall (Meyers-Levy and Tybout, 1989), brand extension evaluation (Scheinin and Schmitt, 1994), as well as the evaluation of brand name extensions (Meyers-Levy, Louie, and Curren, 1994). The effect of congruity on preference will be explored in more detail. More specifically, the role of affect in processing of incongruities will be explicitly considered.

Schemas are thought to contain knowledge about both cognitive beliefs and affect (Fiske and Pavelchak, 1984) and transference of affect from schema to specific brand is likely (Fiske, 1982). "The process of resolving the incongruity tends to be rewarding" (Meyers-Levy, Louie, and Curren, 1994, p 47) as well as once assimilation into the existing schema has taken place the affect associated with the evoked schema will be transferred to that stimulus. Research on behavioral decision making, mood effects, and categorization provides evidence suggesting that affect may arise from the processing (process-induced affect) as well as the evaluation of the processed information or

outcome generated affect (Garbarino and Edell, 1997). The preference for an item develops as a result of the relative strength of process-induced and outcome generated affect. Further, outcome generated affect is multidimensional and includes resolution and transfer affect. Resolution affect is the positive feeling arising from the successful processing of incongruent information, the feeling of accomplishment, which accompanies the resolution of incongruity and the successful assimilation of the stimulus into existing schema. Transfer affect refers to the transference of affect from activated schema to object, such as product or brand as proposed by Fiske (1982) and Fiske and Pavelchak (1984). In most cases transfer affect will be positive, since managers are hardly likely to knowingly choose an existing brand which generates negative affect or for which consumers have negative evaluations, to associate with new brands or brand extensions. However, it is quite possible, in theory for transfer affect to be negative.

Process-induced affect (Garbarino and Edell, 1997) has been defined as the negative affect generated by engaging in effortful processing activities. These authors hypothesize that cognitive effort generates negative affect, that consumers prefer products, which do not require high levels of cognitive effort to evaluate. In this case, consistent with arguments forwarded by Mandler (1982) and Meyers-Levy and Tybout (1989) the expectation is that people prefer and find more interesting, information which requires some, but not too much cognitive evaluation.

According to Mandler (1982), incongruity between a stimulus and a schema increases arousal and cognitive effort resulting in a more extreme evaluation of the stimulus. The amount of effort required to resolve the incongruity will determine whether the evaluation of the stimulus is positive or negative. Mandler (1982) states that

"slightly incongruous events are usually interesting and positively valued" while extreme incongruities result in negative affect because the schema cannot accommodate the stimulus. The categorization literature suggests that when the categorization process is difficult, it leads to the generation of negative affect. This suggests that differential cognitive effort will lead to differences in process-induced affect. However, categorization produces a reduction in uncertainty and positive affect results from successful fit and negative affect from an inability to categorize an item (Cohen and Basu, 1987). More specifically, the resultant evaluation of the stimulus will be a combination of both these affective reactions and the evaluation of the attributes (Garbarino and Edell, 1997).

If one considers explicitly what occurs at differing levels of incongruity, it will be clear why the relationship between incongruity and preference is non-monotonic. When a stimulus contains information which is congruous with existing schema, little or no cognitive effort is required to assimilate the new information, hence very little, if any negative affect will be generated as a result of the assimilation process. There is no incongruity to resolve and hence none of the associated resolution affect. However, the positive affect associated with the schema will be transferred to the stimulus; consistent with our knowledge of affect transfer from schema to stimulus (Fiske, 1982).

In the case of moderate incongruity, moderate effort is required to produce the fit, yielding moderately negative process-induced affect; but strong positive affect comes from the satisfactory resolution of the incongruity as well as the affect which is transferred from the activated schema (together called outcome generated affect or resolution and transfer affect respectively). The strongly positive affect generated as the

sum of resolution and transfer affect (both of which are positive) greatly outweigh the negative affect generated by the effortful processing required to produce the fit between the moderately incongruent stimulus and the activated schema. In considering the difference between the evaluation of congruous versus moderately incongruous stimuli, it appears as if the magnitude of the resolution affect is quite high and therefore has more influence on the overall evaluation of the stimulus.

In extreme incongruity, significant effort is expended trying to resolve the incongruity thus resulting in more negative affect than in the other two cases. Since the attempt to categorize the stimulus meets little success, then neither the resolution affect nor the transfer affect contributes toward positive outcome generated affect; and the stimulus receives an overall negative evaluation.

Two of the basic assumptions of the Schema Theory relate to the motivation to elaborate and the idea that there is limited processing capacity. This therefore requires that one examine the research in that area. The Cognitive Response Theory predicts that people are interested in thinking or elaborating on incoming information (Brock and Shavitt, 1983). Miller et al (1976) suggested that there is a limit to the amount of information processing time and capacity; while the principle of information processing parsimony indicates that consumers seek to process as little data as is necessary for decision making (Haines, 1974). A consistent finding of the numerous studies in psychology has been that humans have limited cognitive resources and allocate them judiciously (Payne, 1982; Russo and Doshier, 1983). However, it has been noted that in some situations people avidly seek and manipulate information and are said to have a high need for cognition (Petty and Cacioppo, 1981, 1983). In other situations they act as

“cognitive misers” (Burnkrant and Sawyer, 1983; Petty and Cacioppo, 1981, 1983) expending only the effort necessary to make a satisfactory, rather than an optimal decision (Fiske and Taylor, 1984). Need for cognition may be dispositional or contextual (Payne, 1982). What is clear, however, is that some people are willing to forgo some benefits to conserve cognitive effort (Johnson, Payne and Bettman, 1988).

The Elaboration Likelihood Model suggests that attitude formation and change occur via one of two processes or routes: the central or peripheral route (Petty and Cacioppo, 1980, 1981, 1983). The central processing route would correspond to attribute-based processing and bottom up processing. Via the central route, issue relevant information is elaborated and evaluated prior to attitude change. This type of attitude change is relatively enduring and predictive of behavior (Cialdini, Petty, and Cacioppo, 1981; Petty and Cacioppo, 1980). This route will be operational when incongruent information is being considered. Given that incongruent stimuli lead to a situation of high elaboration with attribute-based or piecemeal processing, the central processing route is likely (Fiske, 1982; Sujan, 1985).

The peripheral route relates to category-based processing and top down processing. Via this route, simple inferences and cues or heuristics are used rather than evaluating information. Attitudes changed by the peripheral route are relatively temporary and non-predictive of behavior. One expects that this route is operational when evaluating congruent information; because a match between stimulus and activated schema results in consumers applying their judgments of the schema to the new stimulus (Sujan, 1985). Research has shown that the activation of a particular route to persuasion may depend on the content of incoming information. More specifically, Sujan (1985)

found that when incoming information matches product category knowledge, consumers apply their judgments of the product category to a new stimulus as an example of this category via category-based processing (Cohen, 1982; Fiske, 1982; Fiske and Pavelchak, 1984). On the other hand, if incoming product information does not appear to match product category knowledge, consumers evaluate products attribute-by-attribute via piecemeal processing (Fiske, 1982; Sujan, 1985).

Recall can be considered to be the ability to reproduce information after exposure (it is assumed that the exposure leads to encoding and that retrieval of the information is possible). Recall is a memory measure. Previous memory research (Hastie, 1980; Houston, Childers and Heckler, 1987; Srull, Lichtenstein, and Rothbart, 1985) demonstrated that incongruent information is more easily recalled (a measure of retrieval) than congruent information. This is because of the greater processing induced by the effort to resolve incongruity (elaboration). The greater cognitive elaboration leads to a richer memory trace being encoded increasing its accessibility at retrieval.

Schema Theory predicts a non-monotonic relationship between congruity and memory, hence explicit consideration of the effect of differing levels of congruity on memory seems appropriate at this stage. A stimulus containing information consistent with existing schema, does not motivate any elaboration or piecemeal processing of information. Instead category-based processing is used to evaluate the congruent information. The combination of the lack of elaboration, and the fact that category-based processing does not yield a rich memory trace nor enduring attitudes, suggests that congruent information will not be well remembered relative to incongruent information.

Moderately incongruous information prompts cognitive elaboration, which leads to a richer memory trace; thus making access and retrieval of that information easier relative to information, which is congruent. Additionally, the central processing route will likely be used, leading to a relatively enduring evaluation of the information, which will be well remembered. In the case of extremely incongruous stimuli, one expects that using similar arguments, the richest memory traces will be developed here via a central processing route. This would suggest a linear relationship between incongruity and recall. Empirical research, however, demonstrates that while incongruencies are exceptionally well remembered (Srull, 1981), moderately incongruent information is more likely recalled than extremely incongruent information (Meyers-Levy and Tybout, 1989).

To explore this apparent inconsistency one needs to consider that the decision to process information via the central versus the peripheral route is based on motivation and ability (Petty, Cacioppo and Schumann, 1983). Research on cognitive effort (Payne, 1982; Russo and Doshier, 1983; Fiske and Taylor, 1984) and mood maintenance (Isen and Simmonds, 1978; Isen, Shalcker, Clark, and Karp, 1978; Isen and Means, 1983) suggest people are often unwilling to engage in highly effortful tasks. This implies that people may be less motivated to process information which appears extremely incongruent, because it may seem too effortful (Garbarino and Edell, 1997). MacInniss and Jaworski (1989) proposed that motivation to process brand information impacts the amount of attention and the level of processing. The most important variable affecting a person's decision to process is the perceived personal relevance or involvement (Petty and Cacioppo, 1980). Involvement is critical to this endeavor, as it may be induced

experimentally. Involvement is often manipulated by specific processing instructions, and for the purpose of this discourse will therefore be referred to as task involvement. The decision to process information via the central versus the peripheral route is based on opportunity, motivation and ability (Petty, Cacioppo and Schumann, 1983). In this paper it is assumed that the required opportunity exists for information processing, and so no hypotheses are forwarded with respect to opportunity. It is motivation and ability which, are the emphasis of this work. Motivation has already been discussed earlier in the chapter, a discussion of ability follows.

Let us now consider the ability to process. People may find themselves less able to process extremely incongruent information because it is distracting (Petty and Cacioppo, 1981). Edell and Keller (1989) theorized that the processing capacity required to resolve incongruity may limit the available capacity for other processing activities. The authors in their paper on coordinated radio and television advertising campaign, proposed that the effort required to retrieve stored ad trace would distract subjects from the evaluative processing and hence lessens recall. More specifically, distraction is thought to interfere with one's ability to process information. This is consistent with memory literature, which recognizes the capacity constraints of short-term memory (STM). Individuals select from an infinite set of stimuli in the environment those few which become the subject of STM operations (Lord and Burnkrant, 1993). This selection process can be voluntary or involuntary (imposed by an incongruent stimulus). The incongruency attracts attention and requires greater processing capacity than do more familiar stimuli, therefore attention is diverted from any competing stimuli and the individual is said to be distracted. Distraction reduces argument elaboration (Petty,

Wells, and Brock, 1976) and there is strong empirical support for its negative effect on recall (Gardener, 1966, 1970; Venkatesan and Holland, 1968). It is this notion of distraction, which provides the substrate for the expansion of Schema Theory.

Distraction occurs when an individual experiences difficulty performing two or more mental activities simultaneously, even when eager to do so (Posner and Boies, 1971). Evidence of the occurrence of distraction was demonstrated by “global thoughts” not directly related to the specific message in thought listings in relevant marketing literature (Meyers-Levy, Louie, and Curren, 1994). Distraction for the purpose of this paper will be viewed as information not relevant to resolving incongruity.

In the event that one’s attention is diverted from one’s primary task (in this case the resolution of incongruity) then some secondary task occupies the mind (Nelson, Duncan, and Kiecker, 1993), distraction is said to have occurred. A more detailed account of the effect of distraction is warranted given the claims regarding its effect on congruity and memory.

RESEARCH ON DISTRACTION

“Distraction hypothesis suggests that a persuasive message, discrepant with a position strongly held by an audience will be more effective in generating attitude change if the audience is distracted during message presentation” (Nelson, Duncan and Frontczak, 1985, p 60). In other words, “distraction that interferes with the derogation (sub-vocal counter-argumentation) process allows message arguments to pass through the individual’s cognitive defenses” (Nelson, Duncan, and Kiecker, 1993, p 202).

Gardner (1966 & 1970) examined the impact of behavioral distraction on persuasive promotional messages in an experiment. Distraction was manipulated, although no effect on attitude change was observed, a dramatic effect on ad recall was noted. Venketesan and Haaland (1968) experimented with four (4) levels of visually and/or behaviorally induced distraction to determine the effect on recall of advertised product and brand. The effects were significant and substantial.

Bither (1972) manipulated distraction of TV ads using narrator with heavy French accent or visually inconsistent scenes. No significant effect was observed with respect to attitude change but learning effects were significant.

In Edell and Staelin (1983) distraction was operationalized as message incongruency with framed and unframed pictures (picture/message congruency and picture/message incongruency respectively). There was a problem in the design resulting in low power, which made it difficult to determine a clear-cut relationship. However a large negative effect on brand and ad recall was noted.

In Nelson, Duncan & Frontczak's (1985) the "Distraction Hypothesis and Radio Advertising", distraction was manipulated as humor in radio ad, however the experiment failed to produce conclusive results. Park and Young (1986) examined the effect of distraction on persuasion using type of involvement as a moderating variable. They hypothesized that background music in TV ads influence brand attitude formation and purchase intentions in different ways, depending on whether viewers are cognitively involved (based on utilitarian motives) or affectively involved (value-expressive motives) with ad message. Only cognitively involved should find music distracting, but others

should use music as cue to facilitate image processing. Type and level of involvement was thought to be critical to effect of music as distraction. There was strong directional support for the distraction-attitude relationship among high cognitive involvement subjects, the results were inconclusive for high affective involvement.

Osterhouse and Brock (1970) conducted two experiments in which subjects listened to a discrepant message while they were distracted by having to call out a series of lights, which flashed with systematically manipulated frequency. Their results suggested no lowering of the “reproducibility of message content,” more specifically, recall appeared unaffected by distraction.

Houston, Childers, and Heckler (1987) examined the effect of discrepancy between the pictorial and verbal component of an ad. They found empirical support for superior recall for ads in which the picture and copy convey discrepant information. Although these experiments did not specifically deal with distraction, the authors mention the likelihood that discrepancy may be distracting.

What is clear is that distraction’s effect is large (conservative estimate of effect size is 0.25, a measure of the difference between the means of the experimental and control groups). It has most often been manipulated not measured, investigated almost exclusively as predictor, individual differences have not been considered, and models have ignored measurement error. Findings have been inconsistent, possibly due to diverse operationalizations, but one thing that is certain, distraction is field phenomenon, occurring in infinite forms as part of information processing behavior.

SCHEMA AND COMPUTER-MEDIATED ENVIRONMENT (CME)

Schema and Analogical Learning

More recent research in hypermedia computer-mediated environments suggests that consumers use their knowledge of the familiar, prior knowledge, to understand a novel domain (Gregan-Paxton and John, 1997). The literature on analogical learning suggests that consumers when confronted with a novel stimulus access existing knowledge structures, (schema) and determine the level of correspondence between the stimulus and the familiar object (base). The level of transfer of information is dependent on the consumers' judgment of the correspondence between the base object (familiar) and the novel stimulus. The suggestion is that consumers learn about new technologies via this process of transfer, which results in the formation of more abstract knowledge structures.

Previous memory research (Hastie, 1980; Houston, Childers and Heckler, 1987; Srull, Lichtenstein, and Rothbart, 1985) demonstrated that incongruent information is more easily recalled (a measure of retrieval) than congruent information. This is because of the greater processing (piece-meal processing) induced by the effort to resolve incongruity (elaboration). The greater cognitive elaboration leads to a richer memory trace being encoded increasing its accessibility at retrieval. This suggests that the novelty of incongruent stimuli is desirable in many cases, however this may not always be the case. More specifically, novelty may not be desirable in the computer-mediated environment, Iacobucci (1998). In the computer-mediated environment novel stimuli

may prove to be too distracting to users. That is, the combination of dealing with the novelty of the media as well as the novelty of the stimuli may challenge the ability of the user to engage in meaningful processing (Coyle, 2000). Distraction may well be an important variable in understanding how consumers behave generally, but more specifically, may explain their navigation behavior in a computer-mediated environment. Given the notion of the flow state and that computer-mediated transactions are predicted to dominate the future; it is imperative to engage in distraction research.

Schema and Mapping

Research in Hypermedia computer-mediated environments suggests that the relationship between interactivity and vividness in web sites and attitude-behavior consistency is also non-monotonic (Coyle, 2000). The belief is that very high levels of interactivity and vividness are too distracting. Interestingly, the relationship between attitudes and levels of interactivity and vividness is linear. Hypertext involves linkages made in the electronic media among verbal and non-verbal forms of information. Schema theory is believed to provide a valuable way to consider hypertextual phenomena (Landow, 1997). Research by Coyle and Gould, (2002) find empirical support for the application of schema to this new media. More specifically, that consumers' off-line experiences inform their on-line experiences. Consumers are posited to construct everyday narratives of virtual and real phenomena on an interpenetrating basis (Gould and Lerman, 1998). Users are thought to go back and forth between the two realms forming perceptions, interpretations, and schema concerning the internet and the off-line

reality. Although the web retains some novelty, there are strong links to other aspects of life.

Mapping is an important phenomenon in the computer-mediated environment and provides another link to Schema. Mapping is the relationship between an object's controls, the controls, the controls' movements, and the results of activating the controls (Norman, 1990). Natural mapping is most effective and involves "taking advantage of physical analogies and cultural standards," and is believed to "lead to immediate understanding" (Norman, 1990, p. 23). Technological limitations make real-world mapping impractical for most Internet users, but the use of metaphors is an appropriate alternative (Steuer, 1992). Mapping is also a learning process via analogical transfer, where product and procedural knowledge is transferred from the familiar to the less familiar (Gregan-Paxton and John, 1997). By examining the relation between Schema Theory and mapping strategies, the information processing theory is shown to be relevant to the understanding of phenomena in the computer-mediated environment.

Natural or successful mapping strategies can result in a transfer of meaning that is extremely vivid, because it is logical and approximates reality (Coyle and Gould, 2002). Users will be able to click on an image, which is consistent or congruous with their expectations or their existing schema. The image will convey additional, expected information. This will enhance the user's experience and likely contribute towards a favorable attitude (towards the site and brand) as well as encourage desired behaviors, such as purchases.

Less successful mapping strategies have a negative impact on user experience with the likely consequences (unfavorable attitudes and behaviors). Consider the two types of unsuccessful mapping strategies, arbitrary and misleading, and consumers' perceptions of their relative degree of congruity. Arbitrary mapping refers to a situation where a user can develop no expectation based on the information an image provides. More specifically, users are unable to relate the stimulus to any existing schema. On the other hand, misleading mapping occurs when an image selected yields something other than what the user expects. Users may well be able to resolve the apparent inconsistency or incongruity with the evoked schema, upon elaboration, depending on the degree of incongruity.

Mapping may present a unique opportunity to test the mediational effect of distraction on congruity and memory, and is particularly suitable given the interest in examining distraction in the computer-mediated environment. Theoretically, mapping and schema theory relate well, but there would certainly be an interest in exploring the empirical relationship between mapping and congruity.

SUMMARY

This chapter reviews the literature on Schema Theory (including the effect of involvement) and introduces an important variable, distraction, which is examined in some detail. Distraction is thought to be particularly noteworthy as Schema Theory is applied in the Hypermedia Computer-Mediated Environment (CME). The next chapter examines the effect of distraction on a variety of outcome variables and offers a set of hypotheses relating to those effects, it also proposes specific effects of task involvement.

CHAPTER III

HYPOTHESIS DEVELOPMENT

Mapping Strategies and Congruity

A discussion of the value of schema theory in the consideration of hypertextual phenomena (Landow, 1997) has already been explored in Chapter II. Consumers have certain expectations that are due to information and affect stored in schemas. "If a new experience closely matches those expectations, then the appropriate schema will be activated more quickly than when a novel experience fails to tap into such expectations" (Coyle and Gould, 2002, p3). The notion that consumers' off-line experiences inform their on-line experiences is given empirical support in Coyle and Gould, (2002). Hence, although the web retains some novelty, there are strong links to other aspects of life.

This leads to the consideration of specific features that the Internet offers web designers. One such feature is mapping, "the way in which human actions are connected to actions within the mediated environment" (Steuer, 1992, p.86). Effective mapping closely mirrors human action. Natural or successful mapping takes advantage of physical analogies and cultural standards, such that immediate understanding is achieved. Since the technology is not yet in place to make real-world mapping a reality for most internet users, the use of metaphors to match controls with subsequent actions is an appropriate alternative.

Mapping is proposed to occur by a process of analogical transfer, that is, from the familiar to unfamiliar (Gregan-Paxton and John, 1997). Consumer learning by analogy is particularly applicable to new technologies, such as the Internet. This notion of mapping may present a significant opportunity for testing hypotheses with respect to the mediation of distraction on the effect of congruity on memory.

Natural or successful mapping can result in a transfer of meaning; users will be able to click on an image which is consistent or congruous with their expectations or their existing schema. Less successful mapping strategies have a negative impact on user experience. Arbitrary mapping, one of the less successful strategies, refers to a situation where a user can develop no expectation based on the information an image provides. However, arbitrary mapping goes beyond the scope of this inquiry. Misleading mapping, the other less successful strategy, occurs when an image selected yields something other than what the user expects. Misleading mapping may be perceived as moderately incongruous, when upon elaboration, the image or incoming stimulus can be accommodated into existing schema. If the image or incoming stimulus can not be accommodated, even after elaboration, then it will likely be perceived as extremely incongruous. Natural or successful mapping will likely be perceived as congruent because the image will be easily assimilated into existing schema. It is on the basis of these arguments that congruity is manipulated in this experiment as mapping strategy. Mapping strategy represents a unique opportunity to test the mediation model in the CME, proposed in this dissertation.

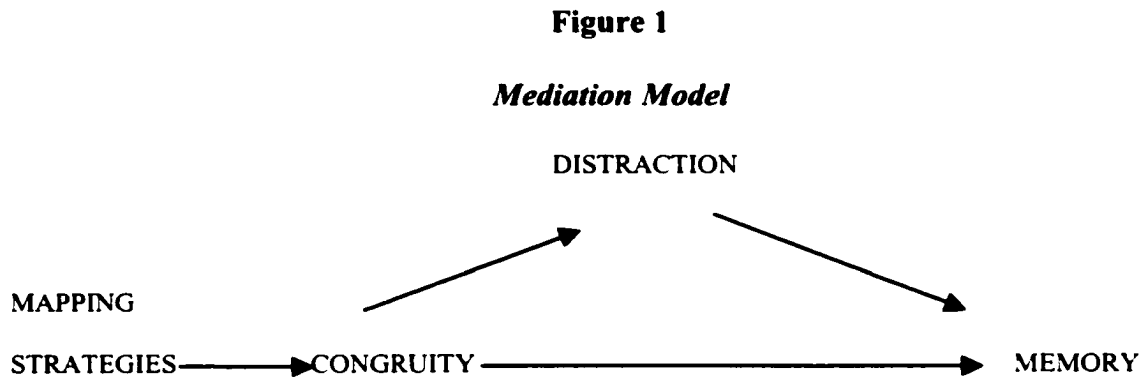
Distraction as a Mediator

It has been demonstrated that distraction reduces argument elaboration (Petty, Wells, and Brock, 1976) and there is empirical support for its negative effect on recall (Gardener, 1966, 1970; Venkatesan and Holland, 1968). However, existing literature on distraction's effect on recall is not quite so clear, in one study by Osterhouse and Brock (1970) no effect was observed, while Houston, Childers and Heckler (1987) demonstrated an increase in recall.

Distraction occurs when an individual experiences difficulty performing two or more mental activities simultaneously, even when eager to do so (Posner and Boies, 1971). Distraction is conceptualized in the context of attention. Attention paid to a particular stimulus or task, occurs in the context of competition among stimuli and tasks for limited processing capacity (Broadbent, 1958; Kahneman, 1973). "Multiple stimuli or tasks, that make simultaneous demands on an individual's central processing mechanism will tend to interfere with each other" (Nelson, Duncan, and Kiecker, 1993, p 205). This suggests that distraction effects are more likely to be manifested only when consumers are highly involved, that is when issue relevant or central route processing occurs. If one or more of the competing stimuli or tasks is of sufficient magnitude to interfere with or divert attention from the original stimulus or task, then distraction has occurred.

Distraction occurs in infinite forms as part of information processing behavior (Nelson, Duncan, and Kiecker, 1993). More specifically, distraction has a multitude of causes but of particular interest to marketers is, distraction, which occurs as a result of processing the message or marketing communication. While marketers are painfully

aware of the various sources of distraction, they are often able to do little to minimize it (distraction from competitive noise). However in the case of distraction resulting from stimuli embedded in targeted marketing communication, managers are able to eliminate or at least minimize this type of distractor. In this research the focus is on distraction, which may occur as a result of processing incongruent information. Evidence of the occurrence of distraction was demonstrated by “global thoughts” not directly related to the specific message in thought listings in earlier mentioned work on schema congruity (Meyers-Levy and Tybout, 1989; Meyers-Levy, Louie, and Curren, 1994), supporting a relation between the two constructs, (congruity and distraction). Further support for this link exists at a more concrete level, distraction is often operationalized as message incongruency (Nelson, Duncan, and Kiecker, 1993). This argument leads to the next set of hypotheses that distraction mediates the relation between congruity and memory. That is, distraction accounts for, at least in part, the observed effect of congruity on memory. This is illustrated in the model below:



A mediational model requires that there be a relation between congruity and distraction (H1b), and that congruity and distraction have an effect on memory (H1a) and (H2) respectively, in order for the model to be valid (Baron and Kenny, 1986). A mediator accounts for the relationship between a predictor (independent variable) and the criterion (dependent variable). Baron and Kenny (1986) indicate that a mediator specifies how or why a specific effect occurs. They indicate that to establish mediation a number of different criteria must be met:

- (i) The independent variable (congruity/mapping level) must affect the mediator (distraction).
- (ii) The independent variable (congruity/mapping level) must affect the dependent variable (memory).
- (iii) The mediator (distraction) must affect the dependent variable (memory) in the third equation.
- (iv) The effect of the independent variable (congruity/mapping level) must be less in the third equation than in the second.

The following hypotheses are consistent with the requirement for mediation as described by Baron and Kenny (1986).

H1(a) : Congruity /Mapping level has a positive effect on memory.

H1(b): Congruity/Mapping level has a negative effect on distraction.

H2: Distraction has a negative effect on memory.

H3: Distraction mediates the relation between congruity/mapping level and memory.

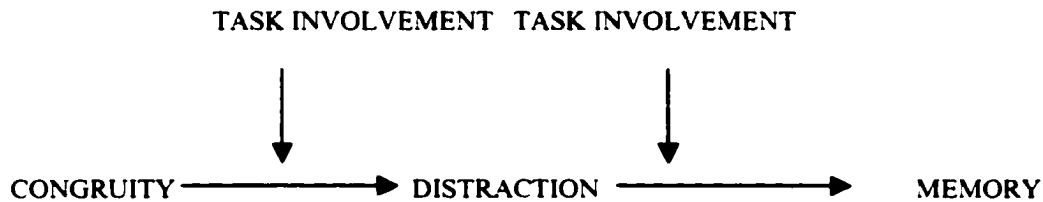
Task Involvement

Involvement is central to the discussion of the processing of incongruous information. Payne (1982) considered differences in information processing based on task objectives. Task involvement affects the amount of attention paid to a given stimulus and therefore the extent to which distraction occurs in a specific context (MacInniss and Jaworski, 1989). Distraction effects are more likely when consumers are highly involved (Nelson, Duncan and Kiecker, 1993). This suggests a main effect of involvement on distraction. For the purpose of this paper, it is task involvement, which is manipulated and examined. Although site involvement is measured, no specific hypotheses regarding this type of involvement will be proposed, instead, site involvement is treated as a covariate.

Task involvement is also thought to impact the perception of the extent of congruity with respect to misleading mapping. More specifically, individuals who log on

to a web site with a specific task will more likely be distracted because of their higher level of involvement. That is they will likely be more affected by the distraction because it may interfere with their ability to navigate the web site. The processing effort devoted to resolving the incongruity, which arises from the poor mapping strategy distracts them from their primary task. This suggests a moderating effect of task involvement on the relationship between congruity and distraction. Despite their higher level of distraction, task-driven individuals are expected to have a higher level of recall. This is because their higher level of involvement prompts greater processing and hence a richer memory trace, suggesting a moderating effect of task involvement on the effect of distraction on memory.

On the other hand, individuals browsing a site with no specific task (low level of involvement) will likely not be distracted by the incongruity. Since distraction occurs in the context of attention, that is, attending to some primary task, these individuals will not be distracted by the mapping strategy because they have no specific task to accomplish and are free to experience the site. The idea is that task involvement will affect the direction and strength of the relationship between incongruity and distraction so that when involvement is high, even though distraction is high, recall will still be higher than in the case where involvement is lower. This is a requirement for moderating effect based on Baron and Kenny (1986). Specifically, Baron and Kenny (1986, p1174) discuss a moderator as a “qualitative or quantitative variable that affects the direction and strength of the relation between an independent variable and a dependent variable.” In the most familiar case, a moderator is represented by an interaction between the independent variable and the proposed moderator such that the following would hold:

Figure 2***Moderation Model***

- H4: Task involvement moderates the effect of congruity/mapping level on distraction.
- H5: Task involvement moderates the effect of distraction on memory.
- H6: Task involvement will have a positive effect on distraction.
- H7: Task involvement will affect memory positively.

Distraction – Main Effect on Attitude and Purchase Intention

Schema Theory addresses the influence processing of different levels of congruity has on the valence and extremity of affective responses. The process of responding to moderate incongruity leads to a more positive response than does the process of responding to either congruity or extreme incongruity (Meyers-Levy and Tybout, 1989). Given the relationship proposed between incongruity and distraction it is likely that distraction will affect an individual's evaluation of the website. Additionally, distraction has cognitive as well as affective consequences (Festinger and Maccoby, 1964) and likely influences attitude formation with respect to the website with poor mapping strategies.

Drawing on the literature on affect and attitude towards the Ad and brand (Lutz, 1985; Mackenzie, Lutz and Belch, 1986; Park and Young, 1986) web site users will likely transfer attitudes towards those web sites to the brand. Distraction interferes with the users' ability to navigate the web site. These users will likely experience negative affect (irritation or frustration) associated with the web site, which they transfer to the brand. Consistent with Ajzen and Fishbein (1980) "theory of reasoned action" one expects consistency between attitude and behavior as measured by purchase intention. Hence users who are distracted by the poor mapping strategies will have a more negative attitude towards the site and brand in the site and will be expected to be less likely to purchase that brand. This leads to the following hypotheses:

- H8: Distraction has a negative effect on attitude towards the web site.
- H9: Distraction has a negative effect on attitude towards the brand in web site.
- H10: Distraction has a negative effect on purchase intention towards the brand in the web site.

Summary

This chapter examines the relationship between distraction and a number of variables, namely congruity, memory, web site attitude, brand attitude and purchase intention. It specifically proposes a mediating effect of distraction on the relationship between congruity and memory, and explores the moderating role that task involvement plays. In order to better understand the relationships predicted, these hypotheses were

tested in an empirical study. The methodology used to test these hypotheses is the subject of the next chapter.

CHAPTER IV

METHODOLOGY

DESIGN

A two factor, three by two between-subjects experiment was used to test the proposed hypotheses. Three levels of the first factor, congruity (congruous, moderate incongruity, and extreme incongruity) are manipulated via natural mapping and two levels of misleading mapping strategies. A web site chosen to reflect natural mapping strategy included a clickable image, which is consistent or congruous with the user's expectations or their existing schema. That is, clicking on the image of the DVD Player provides the user with additional information about the DVD Player including customer ratings and rebates on accessory equipment. Using the same web site, in the moderate incongruity condition, clicking on the same image yields an image of a 13 inch Television set. While in the extremely incongruous condition, the same image yields information on OxiClean a brand of detergent.

The second factor, task involvement, was manipulated by depth instruction which required the subject to perform a specific task, that is, retrieving specific information from the site which they can only successfully complete by clicking on the image described above. The low involvement condition subjects were simply told to explore the web site.

All subjects were exposed to the target page and two filler pages in each site. Thus, the subjects were first exposed to a filler (Chocolate), followed by the target (DVD

Player), then another filler (Play Station 2). Such placement disguised the target while minimizing fatigue and inattention during exposure and evaluation of the target. All fillers were in the congruous condition.

SUBJECTS

About 200 business undergraduates from a large Midwestern University were assigned randomly to each of the six treatment groups, and tested in groups of 15 –20 in an on-campus computer lab. All the subjects were recruited from the Introductory Marketing Course and were offered extra-credit for the class and an opportunity to win \$100. A copy of the recruitment script is included in Appendix A.

The subjects explored each web site (two filler and the target site), then after each exposure dependent measures were collected. Cognitive responses were solicited to measure distraction and immediate unaided recall. Scaled measures of distraction, attitude towards the site and brand, purchase intention, as well as manipulation check and covariates (site and product involvement) were included in the instrument. Subjects were asked to provide demographics and respond to questions regarding expertise, average weekly internet usage and computer anxiety (covariates) as well as measures of delayed unaided and aided recall.

Participants spent an average of twenty-three minutes across both treatment conditions (high and low task involvement) on the task (minimum of 11 minutes and maximum of 38 minutes for low task involvement condition and a minimum of 9 minutes

with a maximum of 36 minutes for high). That is, there was no observed difference between the high and low task involvement groups (same mean time spent). Although many of the subjects did not participate in the debriefing session, those who did expressed surprise at the actual intent of the experiment, suggesting that at least among those subjects, there was no hypothesis guessing. Additionally, from the feedback provided in the debriefing, subjects in the high task involvement condition did not report stronger feelings of engagement beyond those reported by subjects in the low task involvement condition. This suggests that the task involvement manipulation may not have been effective.

STIMULI

Appropriate web sites were designed. All web sites were adapted from existing product images. The sites finally chosen were based on the results of product and site involvement pretests, as well as results of pretests to determine the three levels of congruity. These pretests are discussed in some detail in the section below. Attempts were made to ensure that the sites were approximately the same size. The target site featured the Samsung brand of the DVD Player while the filler sites featured Sony Play Station 2 and Scharfenberger Cooking Chocolate. These sites are located at the following urls and are contained in Appendix B:

<http://depaulmarketing.mine.nu/savingsventures/286/> - natural or successful mapping

<http://depaulmarketing.mine.nu/savingsventures/158/> - moderate misleading mapping

<http://depaulmarketing.mine.nu/savingsventures/372/> - extremely misleading mapping

A plausible cover story was developed and feedback during debriefing did not suggest any hypothesis guessing. Participants were told that a discounter with a wide variety of offerings, was desirous of web presence. Subjects were told that the discounter had a number of test sites about which they wanted feedback. Participants were advised that it was their first impressions that were being sought, as they were often most informative, hence the sites were designed to limit the ability to go back. The subjects were asked to pay careful attention to the directions, oral and written, and to direct all questions to the researcher only during the study.

The sites were specially designed to limit the ability to go back, so subjects could only go forward in the site and likely did not view the questionnaire until after they had examined the site per instructions. Some subjects were instructed to retrieve specific information from the site (high task involvement) while others were simply asked to explore the site (low task involvement). See appendix B for a copy of these instructions.

PRETESTS

Product Involvement

Five products were chosen based on the results of the application of a ten-item seven point semantic differential scale adapted from Zaichowsky (1985) Personal Involvement Inventory. The anchors included important/unimportant, boring/interesting, relevant/irrelevant, exciting/unexciting, means nothing/means a lot, appealing/unappealing, fascinating/mundane, worthless/valuable, involving/uninvolving, not needed/needed. The products tested were DVD Player, Electronic Games, Desserts, Athletic Gear, Chocolate, Computer, Music, Theme Park, Restaurants and Camera. The first five products were chosen based on the average involvement scores (4.7, 5.2, 4.6, 4.1, and 4.4 respectively).

Site involvement and Congruity Manipulation

Three separate websites representing different levels of mapping/congruity were designed for each of these five products. The site involvement was measured using a four-item semantic differential scale adapted from Zaichowsky (1985) Personal Involvement Inventory. The anchors included: boring/interesting, unexciting/exciting, appealing/unappealing, and involving/uninvolving. The congruity scale developed specifically for these purposes was used to determine the strength of the manipulation; that is how well the mapping strategies translated into the three levels of congruity.

A seven-item semantic differential scale was developed by the researcher based on literature review was used to measure congruity (Fiske, 1982; Mandler, 1982; Meyers-Levy & Tybout, 1989; Meyers-Levy, Louis & Curren, 1994; Alden, Mukherjee & Hoyer, 2000). Anchors include unexpected/expected, dissimilar/similar, very unlikely/very likely, unrelated/related, inappropriate/appropriate, irrelevant/relevant, and fits poorly/fits well. The scale had a reliability of 0.93 so all the items were retained.

The results of the site involvement and congruity manipulation (higher scores on the congruity scale indicate high levels of congruity) have been captured in Table 1.

Table 1
SITE INVOLVEMENT & CONGRUITY MANIPULATION

<i>Product</i>	<i>Involvement Mean</i>	<i>Mean Congruity Measures</i>
PS 2	4.1	4.7, 3.4, 1.8
DVD Player	4.5	5.6, 4.3, 2.3
Dessert	4.4	5.0, 4.9, 1.6
Bicycle	3.7	4.5, 4.0, 2.6
Chocolate	5.1	4.6, 3.5, 1.9

The congruity measures in the table refer to the means of the three levels of congruity (congruous, moderately incongruous and extremely incongruous respectively) and were measured on a seven-point scale where seven represented the highest level of

congruity. Based on these results PS2, DVD Player and Chocolate were chosen for the final experiment. Copies of the pretest surveys are included in Appendix C.

DEPENDENT MEASURES

Distraction

A five-item scale adapted from Nelson, Duncan, and Keicker (1993) was used to measure distraction involving likert scale responses to the following items –

- (i) The image and links took my mind away from the message.
- (ii) I could easily read the message in spite of the images and links.
- (iii) When the image appeared, my train of thought was interrupted.
- (iv) My attention was diverted by images and links in the message.
- (v) The images and links made it hard to read the message.

The scale had a reliability of 0.85, which is acceptable given the standards established by Nunnally (1978), all five items were used.

Memory

At the end of the procedure delayed unaided (list as much information as you can recall in the space below) and aided recall measures were collected. Subjects were asked to recall the brand of DVD Player, the specific DVD promoted in the “Rebates and Deals” section as well as any other products featured in this section. The delayed unaided recall measured is referred to as “free recall” in the text of this document. Mean-aided

recall was derived by the average of the three aided recall measures described earlier.

Attitude Towards The Site

Seven-item semantic differential scale taken from Bhandari (1998); adapted from attitude towards the ad used in Muehling, Lacznick, and Stoltman (1991) and Lacznick and Muehling (1990), based on Wells, Leavitt, and McConville (1971). Attractive/not attractive, bad/good, unpleasant/pleasant, appealing/unappealing, dull/dynamic, depressing/refreshing, enjoyable/unenjoyable anchored the scale. The alpha for this scale was 0.92 and all the items in this scale were used in the analysis.

Attitude Towards The Brand

A three-item semantic differential scale from Ajzen and Fishbein (1980) with the following endpoints – negative/positive, good/bad, favorable/unfavorable was used to measure attitude towards the brand. This scale has an alpha of 0.95.

Purchase Intention

A single item measure of purchase intention (adapted from Bhandari, 1998) was used. Respondents were asked to answer the following question on a likert scale -
Based on the information presented, how likely would you be to buy this product?

COVARIATES

Involvement - The four-item scale adapted from Zaichowsky (1985) Personal Involvement Inventory is used to measure product and site involvement. The following bipolar adjective pairs is used as anchors: boring/interesting, unexciting/exciting, appealing/unappealing, involving/uninvolving. This scale has a reliability of 0.87.

Computer Anxiety - A ten-item scale adapted from Raub (1981) by Bhandari (1998) is used to measure computer anxiety. The scales included the following items:

- (i) Computers do not worry me.
- (ii) I enjoy working with computers.
- (iii) I like to use computers.
- (iv) Working with computers is fun for me.
- (v) I look forward to working with computers.
- (vi) I prefer to work with computers as opposed to any other tool.
- (vii) I feel uncomfortable working with computers.
- (viii) I feel awkward around computers.
- (ix) Working with computers is an unpleasant experience for me.

(x) Computers make me nervous.

The reliability with all items included was only 0.59 and was improved to an acceptable level ($\alpha = 0.91$) by dropping items (i) and (vii).

Average Internet Usage – a single item, where respondents indicated the average time spent on the internet weekly by choosing one of the following responses (Bhandari, 1998) was used:

- (i) Less than 1 hour.
- (ii) More than 1 but less than 7 hours.
- (iii) More than 7 but less than 15 hours.
- (iv) More than 15 but less than 30 hours.
- (v) More than 30 hours.

Self-Reported Expertise – A six-item scale including the following items was used:

- (i) I consider myself an expert on line
- (ii) I am a novice online.
- (iii) I am very knowledgeable about the internet.
- (iv) I consider myself a savvy internet user.
- (v) I am a very competent internet user.
- (vi) My skills online leave much to be desired.

Although the reliability with all items included was acceptable (0.76) according to Nunnally (1978) a number of students (38 and 21 in the low and high task involvement conditions respectively)

asked for an explanation of the meaning of items (ii) and (vi).

Given that the alpha was higher when these items were excluded (0.90), the analysis was conducted with only four items.

SUMMARY

This chapter describes the experimental study designed specifically to test the hypotheses developed in Chapter III. The results of the experiment are reported in the next chapter.

CHAPTER V

RESULTS

Manipulation Check

Natural or successful mapping strategies should be perceived as congruous and there is expected to be a main effect of mapping strategy. Analysis of variance (ANOVA) revealed a statistically significant main effect of mapping strategy ($R^2 = 0.20$, $F = 30.26$, $p < 0.001$, $df = 2$). An analysis of variance (ANOVA) including the covariates, yielded similar results with $F = 28.00$ and a $p < 0.001$ with $df = 2$, there was also a significant main effect of site involvement ($R^2 = 0.31$, $F = 21.96$, $p < 0.001$, $df = 6$). None of the other covariates (computer anxiety, average usage, nor self-reported expertise) had any significant effect.

Misleading mapping strategies should have been perceived as moderately incongruous and extremely incongruous depending on the ease of accommodation. The ANOVA results reported earlier support the notion of a statistically significant main effect of mapping strategy, however test of the difference of means indicate that the mean for natural or successful mapping strategy was not significantly different from the mean for moderately misleading mapping strategy (means = 4.84 and 4.57 respectively; $p = 0.234$, $df = 205$). All other means differed significantly ($p < 0.001$, $df = 205$). This suggests that the congruity manipulation worked extremely well for natural or successful mapping and for the extreme condition of misleading mapping, but not quite as well for the moderately misleading condition. The tables (2a - c) and figure below provide more

details of the results. These results suggest that the mapping manipulation worked fairly well with respect to congruity.

Table 2a

Mapping Level	Means of Congruity Measure		
	Mean	N	Standard Deviation
Natural/successful	4.84	73	1.23
Moderately misleading	4.57	72	1.41
Extremely misleading	3.15	63	1.39

Figure 3

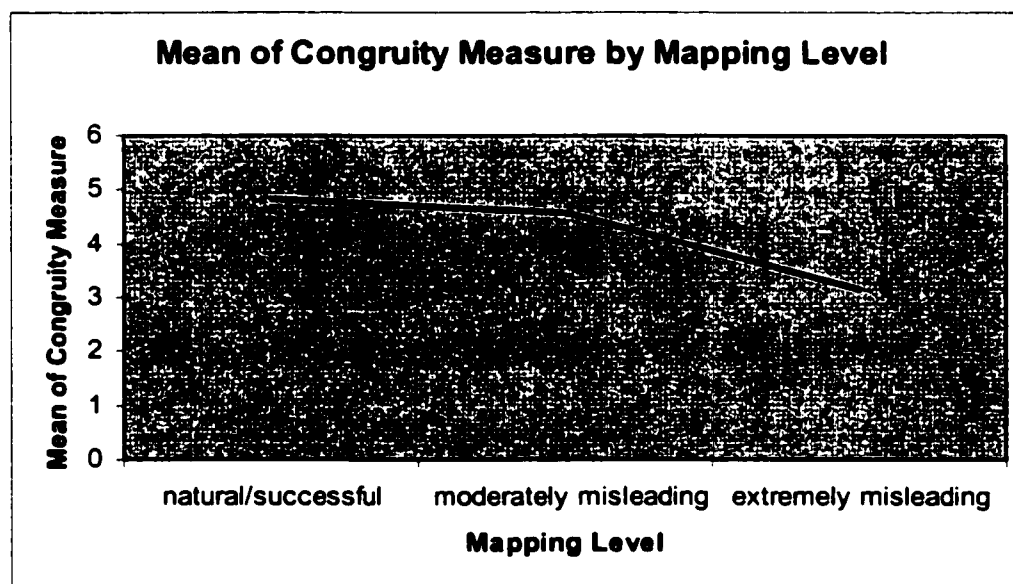


Table 2 b
ANOVA Table for Manipulation Check

Dependent Variable: Congruity Measure

Source	Sum of Squares	df	Mean Square	F	Sig.	R Square
Between Groups	109.18	2	54.59	30.26	.000	.195
Within Group	369.81	205	1.80			
Total	478.98	207				
Corrected Model	146.10	6	24.35	14.88	.000	.311
Intercept	48.08	1	48.08	29.38	.000	
Average Use	.20	1	.20	.12	.727	
Computer Anxiety	1.25	1	1.25	.77	.383	
Source	Sum of Squares	df	Mean Square	F	Sig.	R Square
Expertise	.62	1	.62	.38	.540	
Site Involvement	35.93	1	35.93	21.96	.000	
Mapping Level	91.65	2	45.83	28.00	.000	
Error	324.01	198	1.64			
Total	4179.31	205				
Corrected Total	470.12	204				

Table 2c
Contrast Coefficients & Tests

Contrast	MAPPING		LEVEL
	Natural/successful	Moderately Misleading	Extremely Misleading
1	1	-0.5	-0.5
2	1	-1	0
3	1	0	-1
4	0	1	-1

	Contrast	Value of Contrast	Std.Error	t	df	Sig. (2-tailed)
Assume Equal Variance	1	.9782	.1953	5.009	205	.000
	2	.2261	.2331	1.193	205	.234
	3	1.6902	.2310	7.318	205	.000
	4	1.4240	.2317	6.146	205	.000
Assume Unequal Variance	1	.9782	.1877	5.212	164.658	.000
	2	.2661	.2197	1.211	139.764	.228
	3	1.6902	.2267	7.456	124.741	.000
	4	1.4240	.2416	5.893	131.069	.000

Participants spent an average of twenty-three minutes across both treatment conditions (high and low task involvement) on the task (minimum of 11 minutes and maximum of 38 minutes for low task involvement condition, and a minimum of 9 minutes with a maximum of 36 minutes for high). That is, there was no observed difference between the high and low task involvement groups. The means for high and low task involvement conditions, were 23.17 and 23.36 minutes, with a standard deviation of 4.41 and 5.15 respectively. This yielded a t statistic of -2.58 and a significance of 0.489. Additionally, from the feedback provided in the debriefing, subjects in the high task involvement condition did not report stronger feelings of

engagement beyond those reported by subjects in the low task involvement condition. This suggests that the task involvement manipulation may not have been effective.

Another test of task manipulation comes from the examination of site involvement. That is, participants who were in the high task involvement condition might be expected to have a higher level of site involvement than those in the low task involvement condition. The means for high and low task involvement were 2.81 and 3.01 respectively with a *t* statistic of -1.07 and a significance of 0.284. Again suggesting that the task involvement manipulation was not effective.

Preliminary Analyses

Covariates or concomitant variable are nuisance variables, which experimenters try to control because they have the potential to affect the data generally and more specifically the outcome or dependent variables. Statistical control, if not experimental control of these covariates is achieved by statistical manipulation, which after the fact, hold these variables constant for purpose of the analyses. That is a post hoc, statistical control of these covariates, permits the removal of their influence from the comparison of groups on the experimental factor (Hays, 1994). Six covariates were included in the analyses: age, gender, average internet usage, web site involvement, computer anxiety, and self-reported internet expertise. Elimination of these covariates does not change the direction of the results reported nor does it make statistically significant effects of interest statistically insignificant (or vice versa).

Covariates may also be viewed as possible confounds. As such it is critical to the integrity of the experimental process to conduct confounding checks (Perdue and

Summers, 1986). Other variables (confounds or covariates) may inadvertently affect the outcome of the experiment making it impossible to claim a cause and effect relationship between the treatment and the outcome. Perdue and Summers (1986) advise that both confounding as well as manipulation checks are best conducted in the pretest stage when modifications can more easily be made rather than in the main experiment. Fortunately, the manipulation check (conducted both during pretest and main experiment) was favorable and possible confounds were eliminated in the main experiment.

Descriptive statistics and other preliminary analyses revealed an imbalance in the distribution of covariate values across conditions. (The details of the descriptives as well as Pearson Correlation Coefficients are included in Appendix E). This poses a statistical problem similar to non-orthogonal predictors in regression. The non-orthogonality can obscure the effects of individual variables of interest. The backward elimination variable selection procedure was used to determine any possibly hidden effects (Johnson, 1998). The data analysis was therefore an iterative learning process of deduction and induction (Box, Hunter, and Hunter, 1978) consistent with 'discovery-oriented consumer research' (Wells, 1993). This approach is likely to generate greater knowledge and convergence of theory and truth than generated by theory testing alone (Box, Hunter, and Hunter, 1978; Wells, 1993). Such an outcome is critical for the understanding of distraction in the on-line context, since relatively few empirical studies have been done in this area.

Mediational Model – Distraction As A Mediator

H1 – H3 refer to the proposed mediational model. To test for mediation, one is required to estimate the following regression equations (Baron and Kenny, 1986, p1177):

- (i) Regressing the proposed mediator (distraction) on the independent variable (congruity operationalized as mapping level).
- (ii) Regressing the dependent variable (memory) on the independent (congruity/mapping level).
- (iii) Regressing the dependent (memory) on both the independent (congruity/mapping level) and the proposed mediator (distraction).

To establish mediation the following conditions must hold:

- (v) The independent variable (congruity/mapping level) must affect the mediator (distraction).
- (vi) The independent variable (congruity/mapping level) must affect the dependent variable (memory).
- (vii) The mediator (distraction) must affect the dependent variable (memory) in the third equation.
- (viii) The effect of the independent variable (congruity/mapping level) must be less in the third equation than in the second.

In order to conduct these analyses two dummy variables had to be created to represent the high and moderate levels of mapping/congruity (MAPHI and MAPMOD respectively). This is a requirement in dealing with a categorical independent (predictor) variable.

H1(a) suggests that congruity (operationalized as mapping level) will have a negative effect on distraction. This was supported as the regression yielded an R square of 0.088 with an F statistic of 10.124, and negative beta coefficients, so the proposed main effect was highly significant ($p < 0.001$, $df = 2$). Examination of the beta coefficients demonstrates a significant difference between moderate and low congruity/mapping, and between high and low congruity/mapping. Additional analysis to contrast the moderate and high levels suggests no significant difference between the two. Table 3a - c and Figure 4 provide more details of the results.

Table 3a
Mean of Distraction Measures

Mapping Level	Mean	N
Natural/successful	3.62	74
Moderately misleading	3.72	75
Extremely misleading	4.56	63

Figure 4

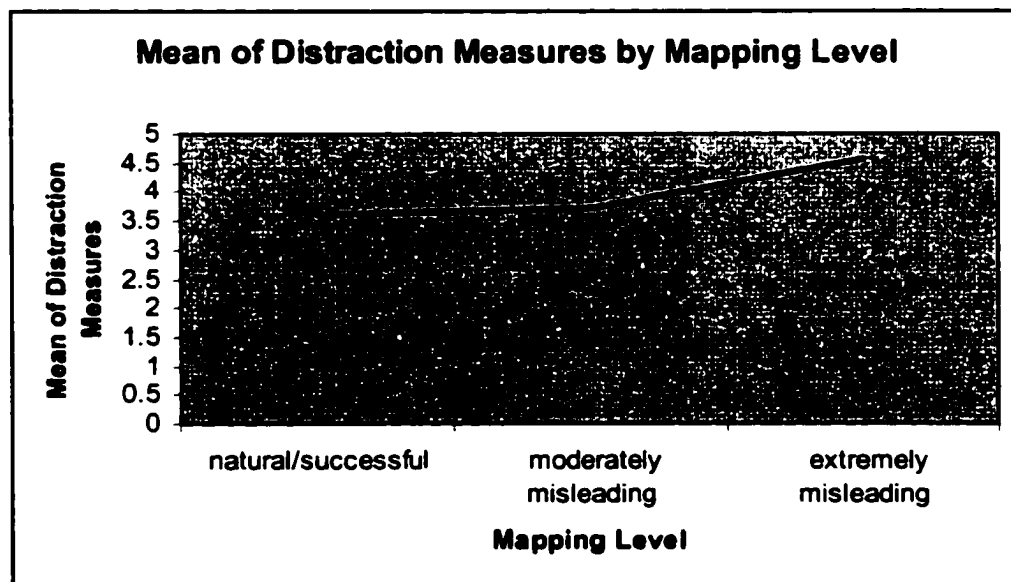


Table 3b
Regression of Distraction on Mapping Level

Dependent Variable: Distraction Measure

Model	Sum of Squares	df	Mean Square	F	Sig.	R Square
Regression	35.494	2	17.747	10.124	.000	.088
Residual	366.354	209	1.753			
Total	401.848	211				

Table 3c
Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
Constant	4.562	.167		27.349	.000
Natural/successful	-.940	.227	-.326	-4.143	.000
Moderately misleading	-.842	.226	-.292	-3.721	.000

H1(b) predicts a main effect of congruity/mapping level on memory. Previous literature (Meyers-Levy & Tybout, 1989; Meyers-Levy, Louis & Curren, 1994; Alden, Mukherjee & Hoyer, 2000) provide empirical support for this relation but one needs to demonstrate that this is true of this sample as well, in order to provide a rigorous test of the proposed mediational model. The regression of Free Recall (a memory measures) resulted in an R square of 0.054, an F-statistic of 6.006 with significance at 0.003 with two degrees of freedom, hence the hypothesis is supported. The examination of another memory measure (mean aided recall) yielded R Square of 0.134 at a significance level of 0.000 with two degrees of freedom, and an F statistic of 8.488. These results also support the hypothesis.

In both analyses it was noted that the moderate and low congruity/mapping level conditions did not significantly differ in their effect on memory. This is consistent with the results of the manipulation check, and was likely due to the partially successful manipulation. The analyses were run excluding the moderately congruous condition and no significantly different results were obtained. Tables 4a – c and Figures 5a – b summarize these results.

Table 4a
Mean of Memory Measures

Mapping Level	Free Recall		Mean Aided Recall	
	Mean	N	Mean	N
Natural/successful/	2.09	74	0.61	44
Moderately misleading	1.48	75	0.33	36
Extremely misleading	1.27	63	.19	32

Figure 5a

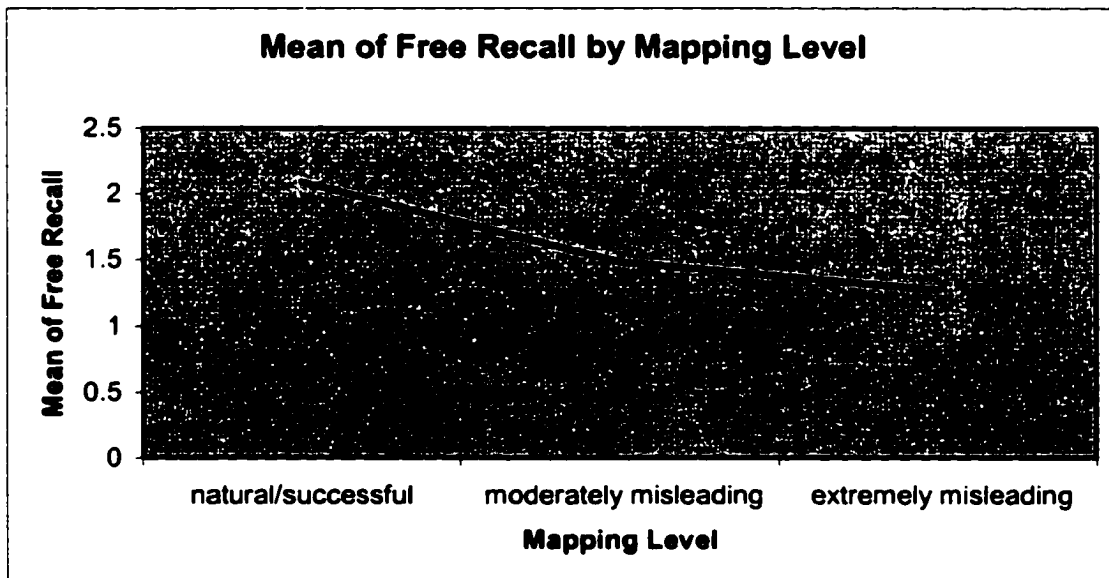


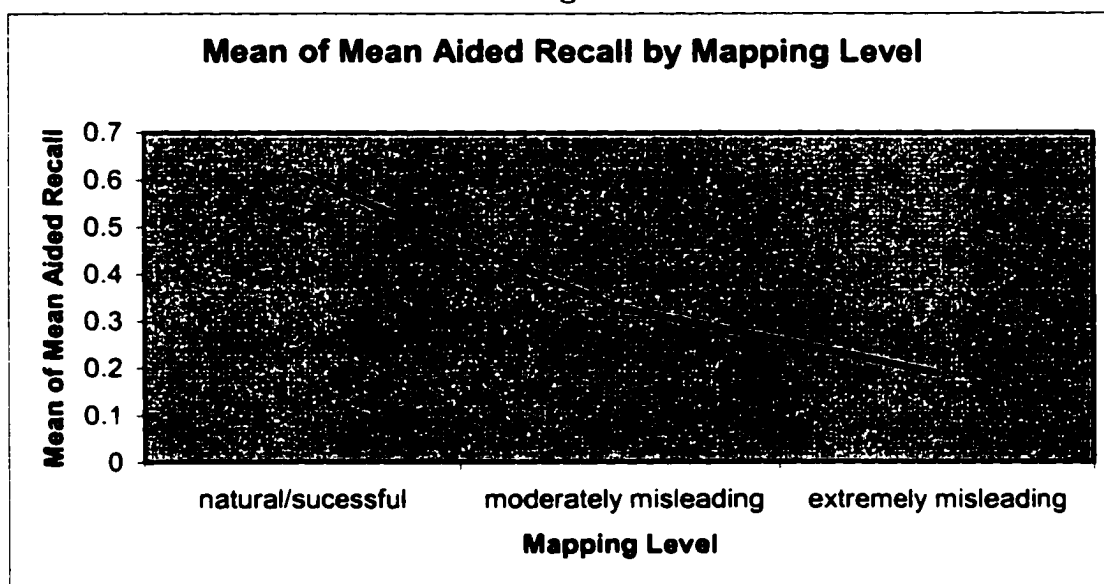
Figure 5b

Table 4b
Regression of Memory on Mapping

Dependent Variables: Free Recall & Mean Aided Recall

Model – Free Recall	Sum of Squares	df	Mean Square	F	Sig.	R Square
Regression	25.831	2	12.916	6.006	.003	.054
Residual	449.471	209	2.151			
Total	475.302	211				

Model – Mean Aided Recall	Sum of Squares	df	Mean Square	F	Sig.	R Square
Regression	3.613	2	1.806	8.448	.000	.134
Residual	23.307	109				
Total	26.920	111				

Table 4c
Coefficients

Free Recall	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std.Error	Beta	t	Sig.
Constant	1.270	.185		6.873	.000
Natural/successful	.825	.251	.263	3.281	.001
Moderately misleading	.210	.251	.067	.839	.403

Mean Aided Recall	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std.Error	Beta	t	Sig.
Constant	.188	.082		2.294	.024
Natural/successful	.426	.107	.425	3.967	.000
Moderately misleading	.146	.112	.139	1.267	.197

H2 predicts a main effect of distraction on memory. The regression results for Free Recall (memory measure) does not support a statistically significant effect of distraction on memory ($R^2 = 0.000$, $F = 0.063$, $\beta = 0.017$, $p = 0.801$, $df = 1$). Examination of the effect of distraction on the other measure of memory (mean aided recall) yielded a R^2 of 0.000, F statistic of .009, standardized β of -0.009 which was not significant ($p = 0.926$, $df = 1$). Tables 5a & b provide more details of the statistical results.

One must note that memory measures were collected immediately after viewing the page and at the very end of the questionnaire. That is, there was only a short time lag between exposure and the collection of memory measures. Subjects took between 9 and 38 minutes to complete the entire study, with the average time spent being 23 minutes. The original methodology called for memory measures at three different time periods

(immediately following exposure, 30 minutes after exposure then three days later). This method of memory testing may have provided a more vigorous test and been able to capture more variability than the method actually used. As such these results may be suspect due to the poor memory measures.

Table 5a
Regression of Memory on Distraction

Dependent Variables: Free Recall & Mean Aided Recall

Model – Free Recall	Sum of Squares	df	Mean Square	F	Sig.	R Square
Regression	.144	1	.144	.063	.801	.000
Residual	475.158	210	2.263			
Total	475.302	211				

Model – Mean Aided Recall	Sum of Squares	df	Mean Square	F	Sig.	R Square
Regression	2.146E-03	1	2.146E-03	.009	.926	.000
Residual	26.917	110	.245			
Total	26.920	111				

Table 5b
Coefficients

Free Recall	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std.Error	Beta	t	Sig.
Constant	1.558	.313		4.978	.000
Distraction Measure	1.890E-02	.075	.017	.252	.801
Mean Aided Recall	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std.Error	Beta	t	Sig.
Constant	.415	.144		2.885	.005
Distraction Measure	-3.319E-03	.035	-.009	-.094	.926

Based on the criteria for mediation, the results fail to support the mediating effect

of distraction on the relation between incongruity and memory. Therefore H3 is not supported. Tables 6a & b as well as 7a & b summarize the regression results.

Table 6a
Regression of Memory on Mapping & Distraction

Dependent Variable: Free Recall

Model 1	Sum of Squares	df	Mean Square	F	Sig.	R Square
Regression	28.317	3	9.439	4.392	.005	.060
Residual	446.985	208	2.149			
Total	475.302	211				
Model 2	Sum of Squares	df	Mean Square	F	Sig.	R Square
Regression	25.831	2	12.916	6.006	.003	.054
Residual	449.471	209	2.151			
Total	475.302	211				
Model 3	Sum of Squares	df	Mean Square	F	Sig.	R Square
Regression	24.319	1	24.319	11.324	.001	.051
Residual	450.983	210	2.14			
Total	475.302	211				

Table 6b
Coefficient

	Unstandardized Coefficients		Standardized Coefficients		
Model 1	B	Std.Error	Beta	t	Sig.
Constant	.894	.395		2.262	.025
Distraction Measures	8.237E-02	.077	.076	1.075	.283
Natural/successful	.902	.261	.287	3.451	.001
Moderately misleading	.280	.259	.089	1.080	.281
Model 2	B	Std.Error	Beta	t	Sig.
Constant	1.270	.185		6.873	.000
Natural/successful	.825	.251	.263	3.281	.001
Moderately misleading	.210	.251	.067	.839	.403
Model 3	B	Std.Error	Beta	t	Sig.
Constant	1.384	.125		11.095	.000
Natural/successful	.711	.211	.226	3.365	.001

Table 7a
Regression of Memory on Mapping & Distraction

Dependent Variable: Mean Aided Recall

Model 1	Sum of Squares	df	Mean Square	F	Sig.	R Square
Regression	3.763	3	1.254	5.850	.001	.140
Residual	23.157	108	.214			
Total	26.920	111				
Model 2	Sum of Squares	df	Mean Square	F	Sig.	R Square
Regression	3.613	2	1.806	8.448	.000	.134
Residual	23.307	109	.214			
Total	26.920	111				
Model 3	Sum of Squares	df	Mean Square	F	Sig.	R Square
Regression	3.253	1	3.253	15.117	.000	.121
Residual	23.667	110	.215			
Total	26.920	111				

Table 7b
Coefficient

	Unstandardized Coefficients		Standardized Coefficients		
Model 1	B	Std.Error	Beta	t	Sig.
Constant	5.902E-02	.174		.339	.735
Distraction Measures	2.899E-02	.035	.078	.837	.404
Natural/successful	.451	.111	.449	4.042	.000
Moderately misleading	.170	.116	.162	1.463	.146
	Unstandardized Coefficients		Standardized Coefficients		
Model 2	B	Std.Error	Beta	t	Sig.
Constant	.188	.082		2.294	.024
Natural/successful	.210	.107	.425	3.967	.000
Moderately misleading	.146	.112	.139	1.298	.197
	Unstandardized Coefficients		Standardized Coefficients		
Model 3	B	Std.Error	Beta	t	Sig.
Constant	.265	.056		4.706	.000
Natural/successful	.349	.090	.348	3.888	.000

Test of Moderation Effect

It should be noted that the task involvement manipulation did not appear to be effective, based on the reports of the subjects participating in the debriefing session, similar average time taken across treatment conditions to complete the task as well as no difference on site involvement for the high and low task involvement conditions.

Therefore, these results might reflect that failure.

H4 predicts that task involvement will moderate the effect of congruity/mapping level on distraction. This suggests an interaction between congruity/mapping level and

task involvement (Baron and Kenny, 1986). In this case both the proposed moderator and the independent variable are categorical, hence Baron and Kenny (1986) suggests that an ANOVA will be an adequate test of moderation. More specifically, “moderation is indicated by an interaction” (Baron and Kenny, 1986, p 1175). The results of ANOVA revealed a significant interaction effect ($F = 3.071$, $p < 0.05$, $df = 2$). Thus this hypothesis is supported by the data. Kindly refer to Table 8a – b as well as Figure 6 a - b for more detail. At low levels of task involvement there appears to be a U-shaped relation between distraction and mapping level/congruity, while at high levels of task involvement the relationship is linear and increasing.

H5 proposes that task involvement moderates the effect of distraction on memory. To test moderation effect when the proposed moderator is categorical (task involvement) and the independent is continuous (distraction), Baron and Kenny (1989, p1175) suggests the use of a correlational test. Hence, distraction was correlated with the memory measures at different levels of task involvement. The test of correlation requires the calculation of the following ratio from Hays (1994, p 650):

$$Z_1 - Z_2 / [\text{standard error } (Z_1 - Z_2)],$$

where Z_1 and Z_2 represent the Fischer Z or transformed correlation coefficient for the two samples.

The [standard error ($Z_1 - Z_2$)] is given by the square root of [$1/(N_1 - 3) + 1/(N_2 - 3)$]

where N_1 and N_2 are sample sizes.

For Mean Aided Recall:

$$Z_1 = 0.601, Z_2 = -0.048 \text{ and } N_1 = 57, N_2 = 55.$$

For Free Recall:

$Z_1 = 0.0621$, $Z_2 = -0.029$ and $N_1 = 111$, $N_2 = 101$.

The calculations yield **0.56** and **0.65** for Mean Aided Recall and Free Recall respectively. Given a null hypothesis that the correlations for the two samples are equal and a critical absolute value of **1.96** at the **0.05** level of significance, we can not reject the null hypothesis. Therefore, the results of the correlation test does not support the notion that task involvement moderates the effect of distraction on memory. Hence H5 is not supported.

Task Involvement

For H6 to be supported a main effect of task involvement on distraction must be statistically significant. ANOVA results do not indicate a significant main effect of task involvement on distraction ($F = 0.110$, $p = 0.740$, $df = 1$). Hence the data fails to support this hypothesis. Details of the result statistics are provided in the table (8b) below.

A main effect of task involvement would have to be statistically significant in order to support H 7. Examination of ANOVA results of free recall (memory measure) indicates a failure to support the main effect of task involvement on memory ($F = 0.321$, $p = 0.5711$, $df = 1$). Examination of the other memory measure (mean aided recall) also indicated failure to support a main effect of task involvement on memory ($F = 0.327$, $p = 0.569$, $df = 1$). The details of the ANOVA results are captured in table 8c & d.

Table 8a
Mean of Distraction Measures by Mapping Level at Low & High Task Involvement

Mapping Level	Low Task Involvement		High Task Involvement	
	Mean	Std. Error	Mean	Std. Error
Natural/successful	3.892	.201	3.351	.228
Moderately Misleading	3.461	.204	3.959	.222
Extremely Misleading	4.714	.231	4.440	.235

Figure 6a

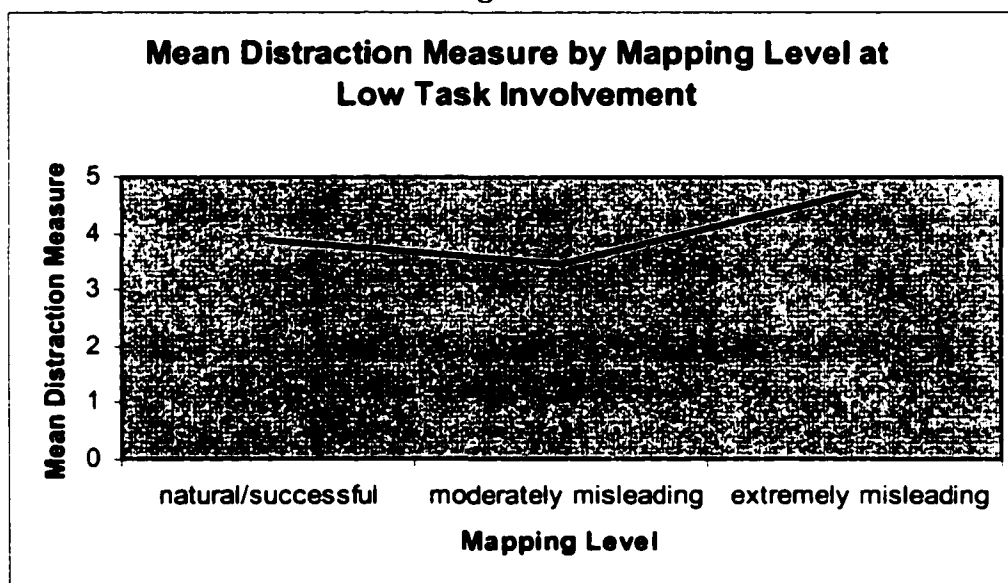


Figure 6b

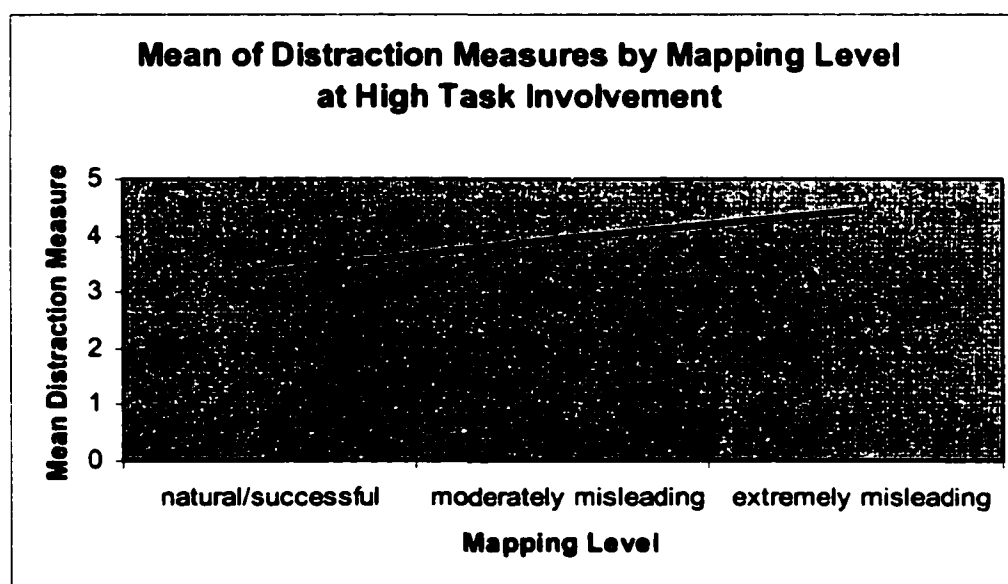


Table 8b**ANOVA Table of Task Involvement Effect on Mapping/Distracton Relation****Dependent Variable: Distraction**

Source	Type II Sum of Squares	df	Mean Square	F	Sig.	R Square
Corrected Model	75.399	9	8.378	5.118	.000	.189
Intercept	108.668	1	108.668	66.387	.000	
Average Use	.138	1	.138	.084	.772	
Computer Anxiety	4.176	1	4.176	2.551	.112	
Expertise	6.848	1	6.848	4.183	.042	
Site Involvement	23.414	1	23.414	14.304	.000	
Task Involvement	.181	1	.181	.110	.740	
Mapping Level	26.081	2	13.041	7.967	.000	
Task Involvement X Mapping Level	10.055	2	5.028	3.071	.049	
Error	324.101	198	1.637			
Total	3643.240	208				
Corrected Total	399.500	207				

Table 8c**ANOVA Table of Task Involvement Effect on Distraction/Memory Relation (Free Recall)****Dependent Variable: Free Recall**

Source	Type II Sum of Squares	df	Mean Square	F	Sig.	R Square
Corrected Model	8.413	11	.765	.325	.980	.018
Intercept	0841	1	.841	.358	.550	
Average Use	.319	1	.319	.136	.713	
Computer Anxiety	.486	1	.486	.207	.650	
Expertise	.461	1	.461	.196	.659	
Site Involvement	1.013	1	1.013	.431	.512	
Task Involvement	.756	1	.756	.321	.571	
Distraction	.909	1	.909	.387	.535	
Task Involvement X Distraction	.490	1	.490	.208	.649	
Error	460.966	196	2.352			
Total	1035.000	208				
Corrected Total	469.380	207				

Table 8d

ANOVA Table of Task Involvement Effect on Distraction/Memory Relation (Mean Aided Recall)

Dependent Variable: Mean Aided Recall

Source	Type II Sum of Squares	df	Mean Square	F	Sig.	R Square
Corrected Model	2.293	11	.208	.845	.596	.087
Intercept	2.844E-02	1	2.844E-02	.115	.735	
Average Use	.868	1	.868	3.515	.064	
Computer Anxiety	1.516E-03	1	1.516E-03	.006	.938	
Expertise	8.689E-02	1	8.689E-02	.352	.554	
Site Involvement	.254	1	.254	1.03	.313	
Task Involvement	8.069E-02	1	8.069E-02	.327	.569	
Distraction	9.785E-04	1	9.785E-04	.004	.950	
Task Involvement X Distraction	7.823E-02	1	7.823E-02	.317	.575	
Error	23.945	97	.247			
Total	44.000	109				
Corrected Total	26.239	108				

Distraction – Main Effect on Attitude & Purchase Intention

From the Pearson Correlation, the three variables (attitude towards the site, brand attitude and purchase intention) are highly correlated, this justifies analyzing them together rather than separately. As such, Multivariate Analysis of Variance (MANOVA) was conducted rather than three separate Analysis of Variance (ANOVA).

H8 predicts a negative effect of distraction on attitude towards the site. This suggests a main effect of distraction on attitude towards the site. Results of the MANOVA lend support to this prediction, as there was a significant main effect of distraction on attitude towards the site (measured by web-page attitude). The F statistic

was 7.52 at a significance of 0.007 with one degree of freedom, thus H8 is supported.

See Table 9 for details.

To test H9, one must demonstrate that distraction has a negative effect on brand attitude, that is a main effect of distraction on attitude towards the brand. Support for this notion was derived from the results of the MANOVA, which yielded an F statistic of 17.27 at a significance of 0.00 and one degree of freedom. The data supports H9. See Table 9 for details.

A negative main effect of distraction on purchase intention is predicted in H10. Examination of the MANOVA results of distraction's effect on purchase intention yields a statistically significant main effect of distraction ($F = 9.82$, $p = 0.002$, $df = 1$). Thus, H10 is supported. See Table 9 for details.

Table 9
MANOVA of Effect of Distraction on Attitude & Intention

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	R Square
Corrected Model	Website Attitude	229.352	9	25.484	72.261	.000	.770
	Brand Attitude	213.552	9	23.728	19.734	.000	.478
	Purchase Intention	135.611	9	15.068	6.294	.000	.226
Intercept	Website Attitude	1.200	1	1.200	3.402	.067	
	Brand Attitude	8.220	1	8.220	6.837	.010	
	Purchase Intention	19.635	1	19.635	8.202	.005	
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	R Square
Distraction	Website Attitude	2.651	1	2.651	7.517	.007	
	Brand Attitude	20.759	1	20.759	17.265	.000	
	Purchase Intention	23.497	1	23.497	9.815	.002	
Mapping Level	Website Attitude	2.362E-03	1	2.362E-03	.007	.935	
	Brand Attitude	7.753	1	7.753	6.448	.012	
	Purchase Intention	6.629	1	6.629	2.769	.098	
Task Involvement	Website Attitude	6.028E-05	1	6.028E-05	.000	.990	
	Brand Attitude	.145	1	.145	.121	.729	
	Purchase Intention	2.228	1	2.228	.931	.336	
Age	Website Attitude	.819	1	.819	2.321	.129	
	Brand Attitude	5.555	1	5.555	4.620	.033	
	Purchase Intention	1.940	1	1.940	.810	.369	
Site Involvement	Website Attitude	188.466	1	188.466	534.413	.000	
	Brand Attitude	120.937	1	120.937	100.581	.000	
	Purchase Intention	51.837	1	51.837	21.653	.000	

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	R Square
Average Usage	Website Attitude	7.0209E-02	1	7.0209E-02	.204	.652	
	Brand Attitude	.102	1	.102	.085	.771	
	Purchase Intention	1.688E-03	1	1.688E-03	.001	.979	
Gender	Website Attitude	.708	1	.708	2.008	.158	
	Brand Attitude	.254	1	.254	.211	.647	
	Purchase Intention	1.776	1	1.776	.742	.390	
Anxiety	Website Attitude	.694	1	.694	1.967	.162	
	Brand Attitude	4.005E-02	1	4.005E-02	.033	.855	
	Purchase Intention	3.087	1	3.087	1.290	.258	
Expertise	Website Attitude	4.618E-02	1	4.618E-02	.131	.718	
	Brand Attitude	.284	1	.284	.236	.628	
	Purchase Intention	5.708E-02	1	5.708E-02	.024	.877	
Error	Website Attitude	68.416	194	.353			
	Brand Attitude	233.262	194	1.202			
	Purchase Intention	464.428	194	2.394			
Total	Website Attitude	2262.816	204				
	Brand Attitude	3025.778	204				
	Purchase Intention	2318.000	204				
Corrected Total	Website Attitude	297.768	203				
	Brand Attitude	446.815	203				
	Purchase Intention	600.039	203				

Table 10**Results of Hypothesis Testing**

	HYPOTHESES	FINDINGS
H1(a)	Congruity/mapping level has an effect on distraction.	SUPPORTED
H1(b)	Congruity/mapping level has an effect on memory.	SUPPORTED
H2	Distraction has an effect on memory.	NOT SUPPORTED
H3	Distraction mediates the effect of congruity/mapping level on memory.	NOT SUPPORTED
H4	Task involvement moderates effect of congruity/mapping level on distraction.	SUPPORTED
H5	Task involvement moderates the effect of distraction on memory.	NOT SUPPORTED
H6	Task involvement will have a positive effect on distraction.	NOT SUPPORTED
H7	Task involvement will have a positive effect on memory.	NOT SUPPORTED
H8	Distraction has a negative effect on attitude towards the site.	SUPPORTED
H9	Distraction has a negative effect on attitude towards the brand.	SUPPORTED
H10	Distraction has a negative effect on purchase intention.	SUPPORTED

Summary

This chapter provides details of the results of the analyses conducted and reports the findings with respect to the predicted relations. Chapter VI will discuss the theoretical and managerial implications of these results, limitations of the experiment, and the directions for future research.

CHAPTER VI

DISCUSSION

The previous chapter reports the results of an experimental study designed to test the hypotheses presented in Chapter III. More specifically, the data establishes the empirical relation between mapping strategies and congruity. The data also demonstrates the effect of a very important variable, distraction, on congruity, attitude towards the site and brand as well as purchase intention. Further the moderating role of task involvement on the effect of congruity on distraction is empirically supported. As part of the iterative learning process, however, the analyses uncovered a variety of effects that were not originally included in the proposed hypotheses (Box, Hunter, and Hunter, 1978). As such, the interest in the results transcend the support, or lack thereof, of the various hypotheses proposed in Chapter III. In fact, there are a number of rather interesting findings uncovered, which are of great import.

Firstly, the relation between congruity and attitude towards the site and brand may not be the inverted U-shaped relation predicted by Mandler (1982) and supported by Meyers-Levy and Tybout (1989), Meyers-Levy, Louie, and Curren (1994) and Alden, Mukherjee, and Hoyer (2000). The empirically observed (off-line) relationship between congruity and preference (represented by attitude towards the site and brand) does not appear to hold in the hypermedia computer-mediated environment (CME). This may be because incongruous stimuli (even moderately incongruous) likely prove too distracting

for users. Naturally, the investigation of the apparent failure of Schema Theory to hold in this context is warranted and the theoretical and managerial implications of this finding will certainly be discussed later in the chapter. See Figures 7 a – c in Appendix F for a graphical presentation of this information.

Secondly, distraction mediates the effect of congruity on attitude towards the site and brand as well as purchase intention. Although the hypothesized mediational model predicting distraction as a mediator between congruity and memory was not supported; a far more important finding was revealed. Given the context of this experiment, the mediational effect of distraction is very significant. This chapter discusses the variety of theoretical and managerial implications of this important finding. The details of these results are contained in Appendix G.

Thirdly, distraction moderates the effect of congruity on attitude towards the site. At lower levels of distraction, the relation between congruity and attitude towards the site is U-shaped, that is, at moderate incongruity users demonstrated the lowest level of preference for the site. At higher levels of distraction the relation between congruity and attitude towards the site is non-linear; with users in the congruous condition demonstrating the highest level of preference and those in the extremely incongruous condition having the lowest. The implications of distraction's moderating effect is explored in the appropriate sections. Detailed results of analyses and figures are included in Appendix H.

Fourthly, although no specific hypotheses were made regarding site involvement, it appears to be an important variable. Given the context of CME, site involvement may well be an important variable in the relation between congruity, distraction and the

various attitudinal and behavioral outcomes. Site involvement had a main effect on distraction as well as attitude toward the site and brand and a moderating role on the effect of congruity on distraction. These differences have a number of implications, which will be discussed. Detailed results including figures are presented in Appendix I.

The next section discusses the theoretical implications of the results, including the four findings identified above. The chapter then proceeds with a discussion of the managerial implications, limitations of the current study, and directions for further research.

THEORETICAL IMPLICATIONS

Mapping Strategies and Schema Theory

Schema Theory is believed to provide a valuable way to consider hypertextual phenomena (Landow, 1997) and there is empirical support for the application of schema to the CME (Coyle and Gould, 2002). Mapping has been described as a learning process via analogical transfer, where product and procedural knowledge is transferred from the familiar to the less familiar (Gregan-Paxton and John, 1997), this suggests a relationship between mapping strategies and Schema Theory. The current research on mapping strategies and congruity adds to the literature by offering both a theoretical framework for the study of congruity in the CME and empirical evidence for the relation between natural or successful mapping strategies, misleading mapping strategies and perceived congruity.

Schema Theory and the Computer-Mediated Environment

Schema Theory predicts that moderately incongruent stimuli will be best remembered as well as most preferred, hence the empirically supported inverted-U shaped relation between congruity and memory as well as preference (Mandler, 1982; Meyers-Levy and Tybout, 1989; Meyers-Levy, Louie, and Curren, 1994; and Alden, Mukherjee, and Hoyer, 2000). In all these cases the data supported the theory in the off-line context. This is the first major study to examine the application of Schema Theory in the CME. The results here, suggest that the relation between congruity and memory as well as preference (attitude towards the site and brand) are linear, at least in the CME. This adds to the knowledge of information processing generally, but more specifically, it makes a valuable contribution to the knowledge of information processing in the on-line context and points to the importance of the role of distraction in considering this relationship.

Mediational Model – Distraction as a Mediator

As part of the test of mediation, the relationship between congruity and memory was supported by this data set. Although existing literature (Mandler, 1982; Fiske, 1982; Meyers-Levy and Tybout, 1989; Meyers-Levy, Louie, and Curren, 1994; and Alden, Mukherjee, and Hoyer, 2000) already established empirical support for this relationship, this study makes the additional contribution to the theoretical framework for the study of Schema Theory in the CME. More specifically, this is the first study to provide empirical evidence for the relation between congruity and memory in this specific context (CME). Additionally, the observed relation between congruity and memory fails to conform to the

predicted inverted-U but instead appears to be linear or non-linear decreasing. This has significant managerial implications, which will be explored in the relevant section.

Distraction has been discussed as part of information processing behavior (Broadbent, 1958; Gardner, 1966, 1970; Venkatesan and Holland, 1968; Osterhouse and Brock, 1970; Posner and Boies, 1971; Kahneman, 1973; Petty, Wells, and Brock, 1976; Houston, Childers, and Heckler, 1987; Nelson, Duncan, and Kiecker, 1993) and has been operationalized as message incongruency (Nelson, Duncan, and Kiecker, 1993). Meyers-Levy and Tybout (1989) and Meyers-Levy, Louie, and Curren (1994) suggest a relationship between congruity and distraction in their work on Schema Theory. Petty and Cacioppo (1981) suggest that people may find themselves less able to process incongruent information because it is distracting. Edell and Keller (1989) theorized that the processing capacity required to resolve incongruity may limit the available capacity for other processing activities, thus reducing memory, while Broadbent (1958) and Kahneman (1973) suggests that distraction limits processing capacity. Although distraction has a large effect, it has most often been manipulated rather than measured and investigated as a predictor rather than an outcome variable. As part of the test of mediation, the effect of congruity on distraction was investigated. It was found to be linear and increasing. The study therefore contributes to existing literature in a number of ways. This study is the first major study to examine distraction as an outcome variable, additionally, it establishes the theoretical relationship between distraction and congruity as well as provides empirical evidence of the positive effect of congruity on distraction. The relationship is not a simple one, and likely involves other variables (evidenced by

small R-square, 0.09). The relationship between distraction and congruity will provide interesting substrate for future research.

Existing literature is unclear about the effect of distraction on memory. Gardner (1966, 1970) and Vankatesan and Holland (1968) demonstrated distraction's negative effect on recall; while, Festinger and Macoby (1964) and Osterhouse and Brock (1970) observed no effect of distraction on recall; however, Houston, Childers, and Heckler (1987) demonstrated an increase in recall. The results of this study do not suggest any significant effect of distraction on memory, hence, it does not assist in clarifying the relation between distraction and memory. As a significant relation between distraction and memory is an indirect requirement for mediation, the data fails to support the notion of distraction as a mediator of the relation between congruity and memory.

The failure to uncover a significant relationship between distraction and memory may in fact be due to a failure to adequately capture the variance in memory with the measures used. Further discussion of the measurement failure is forthcoming in the limitations section. However, it is worthy of note here that the mediational effect of distraction is supported by the data with respect to congruity's effect on attitude towards the site and brand, as well as the purchase intention. Further, distraction has a negative effect on attitude towards the site and brand, as well as purchase intentions. This study represents a significant theoretical contribution as it represents a leap in the general understanding of the role of distraction in the CME context. But more specifically, it provides empirical evidence for the effect of distraction as a mediator on the relationship between congruity and attitudes and intentions. The managerial implications of this important finding will be discussed in the next section.

Distraction - A Moderator?

Distraction was observed to moderate the effect of congruity on attitude towards the site. At lower levels of distraction, the relation between congruity and attitude towards the site is U-shaped, that is, at moderate incongruity users demonstrated the lowest level of preference for the site. At higher levels of distraction the relation between congruity and attitude towards the site is non-linear; with users in the congruous condition demonstrating the highest level of preference and those in the extremely incongruous condition having the lowest. This finding is interesting because not only is distraction acting as a mediator but also a moderator in the relationship between congruity and attitude towards the site. This seems rather intuitive, distraction helps explain (mediation) the attitude towards the site, but it also affects the strength and direction of the relationship (moderation) between congruity and attitude towards the site. Baron and Kenny (1986) make reference to this combined effect and discuss the notion of mediated moderation and moderated mediation. This study contributes a theoretical framework for the general study of information processing and its outcomes in the CME, but more specifically the study of the distraction variable and the attitudinal outcomes on-line.

Role of Involvement

Payne (1982) considered the differences in information processing based on task objectives. Task involvement affects the amount of attention paid to a given stimulus and therefore the extent to which distraction occurs in a specific context (MacInnis and Jaworski, 1989). Distraction effects are thought to be more likely in the high

involvement context (Nelson, Duncan, and Kiecker, 1993). Task involvement may also impact the perception of the extent of congruity, such that, at higher levels of involvement users are likely more distracted but were hypothesized to still have a higher level of recall due to greater elaboration. In Chapter III main effects of task involvement on distraction and memory as well as moderating effect on the relation between congruity and distraction and distraction and recall were hypothesized. Only the moderation of task involvement on the relation between congruity and distraction was found to be significant. This result provides empirical evidence for the notion of differences in information processing and therefore the level of distraction espoused by previous literature (Payne, 1982; MacInnis and Jaworski, 1989; Nelson, Duncan, and Kiecker, 1993). It add to the literature on distraction in CME and more specifically, the literature on distraction's relation with task involvement.

None of the other hypothesized effects were supported by the data. There was no observed main effect of task involvement on either distraction or memory, nor was there a significant interaction effect between task involvement and distraction on memory. The task involvement manipulation is a weak manipulation, and likely contributed to the lack of significant results. This issue will be further discussed in the limitations section.

Site involvement was determined to have several significant main effects, these included a main effect on distraction as well as a main effect on attitude towards the site and the brand. It did not however have a significant main effect on memory. Site involvement was also demonstrated to have a moderating effect on the relation between congruity and distraction. These effects are consistent with existing literature (Petty and Cacioppo, 1981; MacInnis and Jaworski, 1989; Nelson, Duncan, and Kiecker, 1993) on

the role of involvement in information processing and more specifically involvement's effect on distraction and its outcomes. The current research on information processing in the CME is enriched by these theoretical contributions. Product and site involvement were repeatedly pretested to ensure their highest possible levels in the experiment. This likely contributed to the more significant results, compared to task involvement. The failure to find a significant main or interaction effect of site involvement on memory likely had more to do with the failure of the memory measures.

Distraction – Main Effect on Attitude and Purchase Intention

Distraction was demonstrated to have a highly significant main effect on attitude towards the site and brand, as well as purchase intention. This is consistent with existing literature (Festinger and Macoby, 1964) suggesting that there are cognitive as well as affective consequences of distraction. Distracted users likely experience feelings of frustration and irritation toward the site, which they transferred to the brand in the site (Lutz, 1985; Mackenzie, Lutz, and Belch, 1986; Park and Young, 1986), this then lead to lowered purchase intentions (Ajzen and Fishbein, 1980). These results contribute towards the theoretical understanding of the distraction variable in the CME and its effect on attitudinal and behavioral measures, by providing empirical evidence of these effects.

MANAGERIAL IMPLICATIONS

From the results of this and other studies (Landow, 1997; Gould and Lerman, 1998, Coyle and Gould, 2002) it is clear that in many cases off-line theories such as Schema Theory may provide useful insights into on-line behavior. Marketers are being encouraged to recognize that although strong links exist between the web and other aspects of life, the web does retain some novelty. More specifically, predicted off-line relations may exist on-line, but the strength and direction of such relations may not be identical. These differences may have significant managerial implications.

Mapping Strategies, Schema Theory and CME

Mapping is a valuable tool for enhancing the users' navigational experiences because it is relatively economical. Marketers must however be cautious in their design to incorporate more natural mapping strategies and limit their use of misleading strategies. Users have specific expectations, when these expectations are not fulfilled the consequences for memory, attitude and purchase intentions can be severe.

In the effort to distinguish one's content from one's competitors, marketers have been taught to enhance novelty. More specifically, the novelty of incongruent stimuli is known to be desirable in many cases but may not be in the CME (Iacobucci, 1998). Novel stimuli may prove too distracting for users, who must deal with the novelty inherent in the media itself, as well as the novelty of the stimuli. This challenges the users' ability to engage in meaningful processing and has a negative impact on their

experience with the likely consequences of poor memory and unfavorable attitudes, as well as undesired behaviors.

Marketers may want to test their sites to ensure congruence, even in cases where mapping is not employed or only natural mapping strategies are used. The data suggests likely negative attitudinal and behavioral outcomes from the processing of unexpected or incongruous material. Research on user response to pop-up ads suggests that these ads are perceived as less intrusive and less irritating when the ads are congruent with editorial content (Edwards, Li and Lee, 2002). This research suggests that user response will be negative even in the processing of marketing material, which does not contain pop-up ads. Congruence on-line is therefore strongly recommended.

Role of Distraction

Despite the fact that the data did not support the mediational role of distraction on the relationship between congruity and memory, there was overwhelming support for distraction's role in the relation between congruity and attitude towards the site and brand, as well as purchase intention. This lends support to earlier arguments that marketers may want to avoid incongruous stimuli in the CME because of the possible unfavorable consequences on memory and attitude. Now, one also has evidence of the negative impact of incongruity on purchase intention (a downstream variable more useful to marketers than even attitude as a predictor of desired behaviors).

Distraction is obviously an important variable in the CME, it exerts direct as well as indirect negative consequences on attitudes and purchase intentions. Unfortunately, distraction has a multitude of causes, many of which are outside the control of marketers.

Marketers can, however, control or eliminate distraction, which may occur as a result of processing incongruous stimuli, by exercising caution in the use of such stimuli in web design. Naturally, further research on the consequences of distraction in the CME is warranted.

Role of Involvement

Involvement is another important variable for marketers to consider generally but more specifically in the CME. Users who find the site more personally relevant will in many cases have higher recall, more enduring attitudes and intentions (Petty and Cacioppo, 1981). However, these are the users (highly involved) who will be more likely distracted by incongruity or anything other than the expected.

The results regarding task involvement suggest that marketers, and more specifically web designers must consider the goals and expectations of users in their design (Coyle and Gould, 2002). User's who are oriented towards a particular task may desire a simple site, which conforms to their expectations and facilitates a quick-in-and-out. Rodgers and Sheldon (2002) suggest that users who engage in "web surfing" probably do so because of the "novelty factor" (Rodgers and Sheldon, 2002, p87). These authors conceive the surfing experience as generally enjoyable with positive affect associated with it. It is possible that these users (surfers, browsers) may be more tolerant of complex designs, which may involve incongruity. It is to be noted however, that even these playful surfers may become frustrated by complex web design, specifically when the web site takes too long to down load.

The data did not support either a main effect or interaction effect of either site or task involvement on memory, this failure is of more theoretical relevance than managerial relevance. Off-line, memory is an important intermediary between stimulus exposure, attitude formation and purchase (Edell and Keller, 1989). Consumers view persuasive communication and must retrieve from memory some of that content, or at least their evaluation of competing brands, at the time of purchase. Given that there may be significant lag between stimulus exposure and purchase, memory is critical. In the CME, memory may not play as important a role, as many purchases are immediate, that is, there is a shorter lag between stimulus exposure and purchase decision. It is therefore the attitudinal outcomes that are paramount in this context. This is particularly the case where the users are highly involved as a result of planned purchase.

LIMITATIONS

Despite the variety of implications discussed earlier in this chapter, this research offers a starting point for exploring information processing in the CME and more specifically, the role of distraction and involvement in processing incongruencies. As such it should not be interpreted as reporting irrefutable and conclusive findings. Moreover, the research and its findings are subject to a number of limitations that may impact their applicability to the marketplace.

First, it is unclear whether the findings reveal true effects (or lack thereof) of distraction on memory. Previous research is unclear about the relation between distraction and memory in the off-line context, and no studies in the CME specifically

testing this relation have been reported. Memory measures were collected immediately after viewing the page and at the very end of the questionnaire. That is, there was only a short time lag between exposure and the collection of memory measures. The original methodology called for memory measures at three different time periods (immediately following exposure, 30 minutes after exposure then three days later). This method of memory testing may have provided a more vigorous test and been able to capture more variability than the method actually used. Future studies may want to address this limitation.

Failure to find a significant main effect of task involvement on distraction or memory may have been due to the weakness of the task involvement manipulation. Users were asked to retrieve specific information from the site about the products in the site. Successful retrieval of that information did not have any positive consequences beyond the mere satisfaction of having completed the task, the information had no practical value to the users. Additionally, the task involvement manipulation did not appear to be effective, based on the discussions with the subjects who participated in the debriefing. Site involvement, which was subject to various pretests provided far more significant results. On the other hand, the failure to demonstrate the moderating effect of task involvement on distraction's effect on memory was likely due to the failure of the memory measure as well as the poor task involvement manipulation. Task involvement manipulation could be improved by making the task more relevant or more satisfying, for example, correct retrieval of the information described earlier could be rewarded by additional extra-credit points or a chance at a lottery. This limitation might be addressed

in future research by making the task involvement manipulation stronger and conducting more formal manipulation checks.

DIRECTIONS FOR FUTURE RESEARCH

In addition to the methodological limitations of this study, researchers may pursue a number of theoretical and managerial issues raised by the present research. The current research uncovered differences in the relationship between congruity and memory as well as attitude towards the site and brand, than predicted by Schema Theory. This warrants further investigation to determine whether these are spurious results or whether the CME accounts for these differences.

Distraction has emerged as an important variable in information processing in the CME and more specifically in the processing of incongruencies. Current research suggests main effects, mediating effects as well as a moderating effect of distraction on a variety of variables considered in this research (congruity, attitude, and purchase intention). This represents pioneering work, distraction needs to be further investigated to clarify its true role in the CME. Specifically, the notion of distraction, mediated moderation or moderated mediation with respect to the relationship between congruity and attitude should be explored. The model for the role of distraction may be more complex than theorized in this paper. Additionally, one needs to consider the distraction/congruity relation to determine whether it is truly linear and to determine what other influences account for the observed relation.

Site involvement may provide valuable information in understanding the role of distraction in the processing of information in the CME and more specifically, in understanding the role of distraction in processing incongruencies. Future research might also investigate site involvement specifically, but involvement generally to clarify it's effect in the CME.

SUMMARY

This dissertation offers a theoretical framework as well as empirical evidence for understanding the role of distraction in information processing in the CME. The data revealed mixed results with respect to the predicted relationships, and the analysis uncovered a number of significant findings, which were not the subject of any predictions. Thus, like most research, the results of the experimental study raise many questions, which suggested future research may help to resolve.

APPENDIX A

RECRUITMENT SCRIPT

Participants are being sought for a marketing research study designed to help marketers develop more effective websites. Participation in this study requires that you come to a computer lab at a specified time for about one half hour. There you will be asked to explore a website and complete a questionnaire based on what you have viewed as well as a few questions about themselves as consumers. Participants are assured of the anonymity and confidentiality of their individual responses.

Sign-up sheet will be distributed and students wishing to participate should indicate their availability as well as contact number and/or email address so they may be contacted to make arrangements. All participants should expect to receive a phone call to remind them of their commitment and the details. The researcher is available to answer questions at (312) 362-8421 or ssmith30@depaul.edu.

Participation is voluntary but qualifies you for participation points (1- 2 % of final grade) in the marketing class in which you are enrolled. Anyone not willing or able to participate may earn similar extra-credit points by contacting your instructor for some options of equivalent exercises. These may include one of the following activities: a single page summary of a relevant article from a current business publication, list and provide definitions of marketing terms or concepts critical to the understanding of the key points in the article. Relate these key points, terms and concepts to the material in your text.

Watch 30 minutes of primetime TV on a major network and record the broadcast.

At the end of the broadcast, list (completely from memory) all the commercials you recall seeing, the brands advertised, and any other information that you can recall about the ad.

Compare your list with the actual taped broadcast. Suggest explanations any discrepancies using marketing concepts.

Use magazines and images from any other sources, to prepare a collage of the decision-making process of a recent (last 6 months) major purchase.

Write an essay (no more than 2 pages) on ethics in marketing, who's responsible?

Feel free to contact your course instructor for details of any other extra-credit assignments.

Participation in this study affords students invaluable practical exposure to marketing research, and will enhance the course material. Another significant potential benefit would be to learn how to create more effective and easily navigated websites.

There will be approximately three hundred (300) students taking part in this study.

Thank you for your time.

APPENDIX B

SAMPLE OF EXPERIEMENTAL STIMULUI AND INSTRUCTIONS

EXPERIEMENTAL STIMULI

The Urls for the three websites are listed below, and copies of each page follow:

<http://depaulmarketing.mine.nu/savingsventures/286/> - **natural or successful mapping**

<http://depaulmarketing.mine.nu/savingsventures/158/> - **moderate misleading mapping**

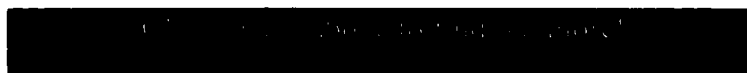
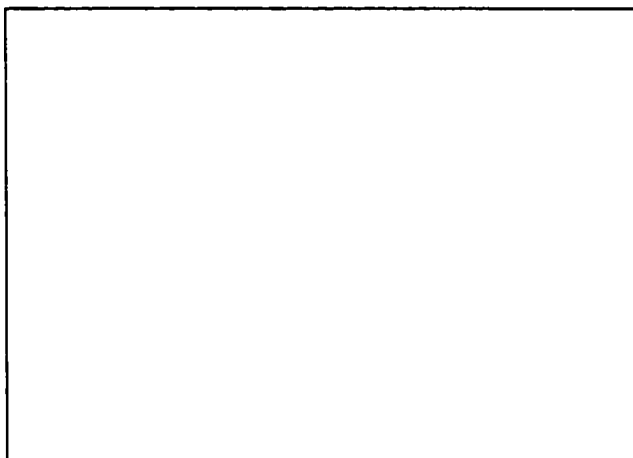
<http://depaulmarketing.mine.nu/savingsventures/372/> - **extremely misleading mapping**

<http://depaulmarketing.mine.nu/savingsventures/286/>

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***This week's featured product....
BAKING CHOCOLATE BY SCHARFFEN BERGER***



[Shipping and Handling] [Returns] [Monthly Coupons]

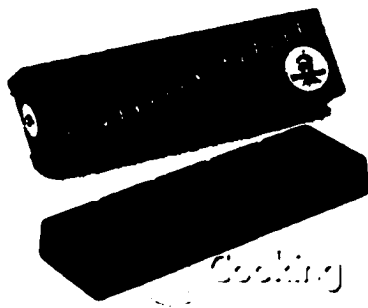
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This week's featured product....

BAKING CHOCOLATE BY SCHARFFEN BERGER



Available in 9.7oz bars
with three different
flavors to choose from:
Bittersweet Chocolate
Semi-Sweet Chocolate
Unsweetened Chocolate
all for only \$8.95.

**This American made
chocolate rivals any in
Europe with its fruity
taste and rich complex
layers. Each bar is made**

**with coffee beans roasted in small portions to preserve the unique
characteristics.**

Baking Shop



Check out other products in our:

**Carmel Sauce
Chocolate Sauce
Candied Ginger
Flour
Sugar
Extracts**

THIS MONTH'S FEATURED RECIPE



Recipe for Caramel Oatmeal Chewie:

**1 3/4 cups quick oats
1 3/4 cups all-purpose flour, divided
3/4 cup packed brown sugar
1/2 teaspoon baking soda
1/4 teaspoon salt (optional)
3/4 cup butter or margarine
2 cups semi sweet chocolate**

1 cup chopped nuts
1 cup caramel ice cream topping

Method

Preheat oven to 350 degrees F. Grease bottom of 9 inch baking tray. Combine oats, flour, sugar, salt, and baking soda in large bowl stir in butter, mix well. Reserve 1 cup oat mixture, press remaining oat mixture into the bottom of prepared baking tray. Bake 12 to 15 minutes until golden brown, sprinkle with morsels of chocolate and nuts. Mix flour with caramel topping in small bowl drizzle over nuts to within quarter inch of pan edges. Sprinkle with reserved oat mixture. Makes about 2 1/2 dozen bars.

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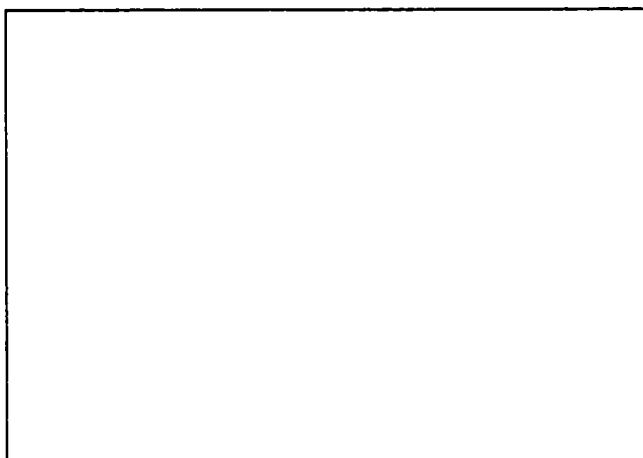
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This week's featured product....



Free Shipping on all digital cameras for more details [CLICK Shipping and Handling below.](#)
Deals & Rebates



\$5 Coupon if you purchase ALI on DVD. See the [Details](#)

\$20 REBATE ON CELL PHONES

Keep in touch with all your loved ones by selecting one of our top selling cell phones.

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and more...

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\$100 mail-in rebate

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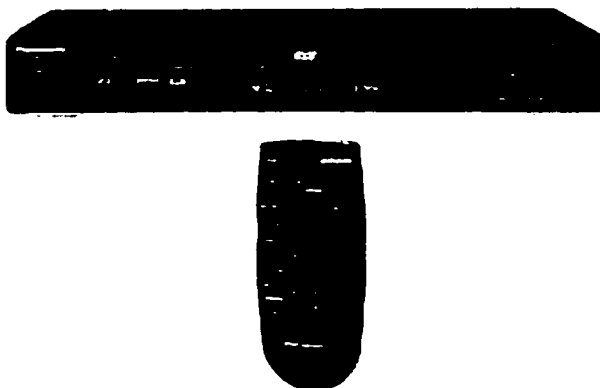
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This week's featured product...
SAMSUNG DVD PLAYER



Customer Ratings

=poor & *=excellent**

Image Quality ****

Sound Quality ****

Ease of Use * 1/2**

Ease of Use by Remote Control * 1/2**

Quick and Easy Setup * 1/2**

Zoom

Back View

Remote

**Check out our all time low price of
 \$243.99**

Product Features:

****DVD player with DVD, DVD-R, CD, CD-R/RW and MP3 compatibility***

****2 channel simulated surround sound***

****Optical and coaxial digital audio outputs***

****Zoom feature***

****Full-function remote***

Recommended Accessories are:

****Audio/Visual Fiber Optical Cable***

****S-Video Cable***

****Surge Protector***

****24-month warranty***

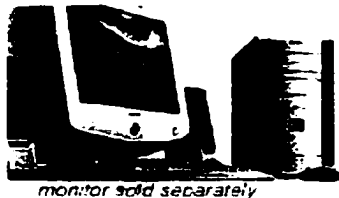


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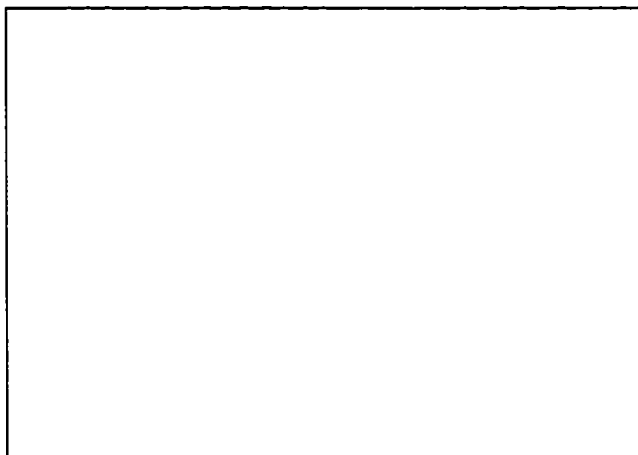
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SAVINGSVENTURES.COM PRESENTS



***This week's featured product....
PLAYSTATION 2***



Click on the button below to find out more!

Check out some of our new games for PS2



[Shipping and Handling] [Returns] [Monthly Coupons]

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This week's featured product....
PLAYSTATION 2

**Customer Ratings**

=poor & *=excellent**

Image Quality ****

Sound Quality ****

Ease of Use * 1/2**

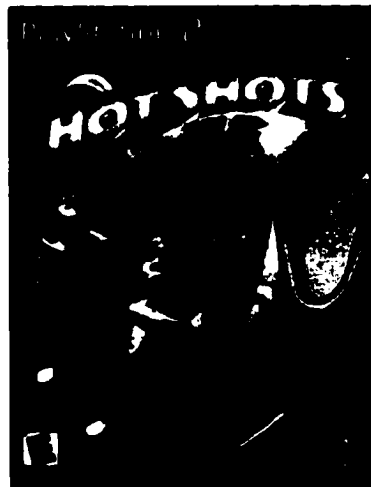
Quick and Easy Setup * 1/2**

PS 2 for a new low price of \$199.00

Product Features

- *Dimensions: 301mm(W)x 178mm(H) x 78mm(D)***
- *Weight: 2.1kg***
- *Media: Playstation2 CD-ROM, Playstation CD-ROM, DVD player with DVD, DVD-R, CD, and CD-R/RW***
- *Dual Shock Controller***
- *AV Multi Cable to connect to television or VCR or AC power card***
- *32-Bit stereo sound***
- *2D/3D graphics acceleration***
- *128 bit***

Check out some of our games



Hot Shots Golf3

***This edition of Hot Shots has playability and style, not just simulation.
Design your own player or choose from our list of pros. Our Price
\$49.99***

Grand Theft Auto 111

***Explore your inner criminal with 80 different missions to be solved.
As the player completes each successive mission more missions will open
up to them. Our Price \$49.99***

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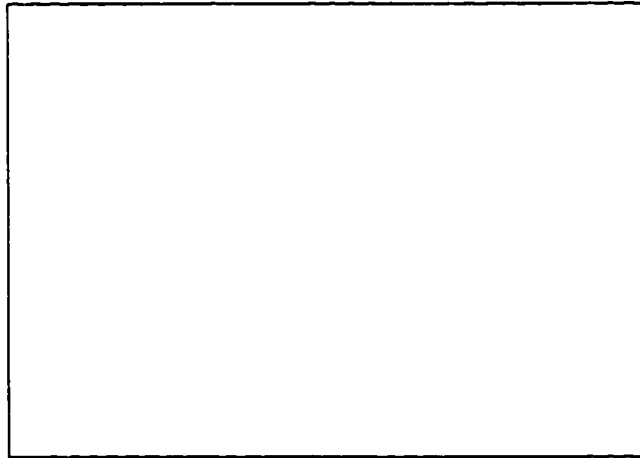
Thank you for your participation.

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***This week's featured product...
BAKING CHOCOLATE BY SCHARFFEN BERGER***



Click on the image to find out more!

[Shipping and Handling] [Returns] [Monthly Coupons]

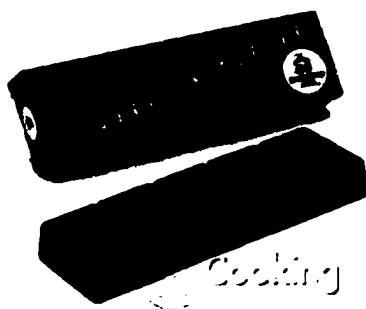
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This week's featured product...

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Available in 9.7oz bars
with three different
flavors to choose from:
Bittersweet Chocolate
Semi-Sweet Chocolate
Unsweetened Chocolate
all for only \$8.95.

**This American made
chocolate rivals any in
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layers. Each bar is made**

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characteristics.**

Baking Shop



Check out other products in our:

Carmel Sauce
Chocolate Sauce
Candied Ginger
Flour
Sugar
Extracts

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Recipe for Caramel Oatmeal Chewie:

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1 3/4 cups all-purpose flour, divided
3/4 cup packed brown sugar
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1/4 teaspoon salt (optional)
3/4 cup butter or margarine
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1 cup chopped nuts
1 cup caramel ice cream topping

Method

Preheat oven to 350 degrees F. Grease bottom of 9 inch baking tray. Combine oats, flour, sugar, salt, and baking soda in large bowl stir in butter, mix well. Reserve 1 cup oat mixture, press remaining oat mixture into the bottom of prepared baking tray. Bake 12 to 15 minutes until golden brown, sprinkle with morsels of chocolate and nuts. Mix flour with caramel topping in small bowl drizzle over nuts to within quarter inch of pan edges. Sprinkle with reserved oat mixture. Makes about 2 1/2 dozen bars.

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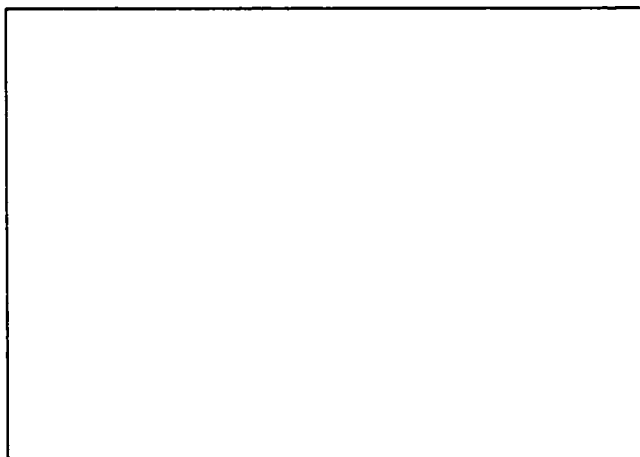
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This week's featured product....



***Free Shipping on all digital cameras for more details CLICK Shipping
and Handling below.***
Deals & Rebates



**\$5 Coupon if you purchase ALI on DVD. See the
Details**

\$20 REBATE ON CELL PHONES

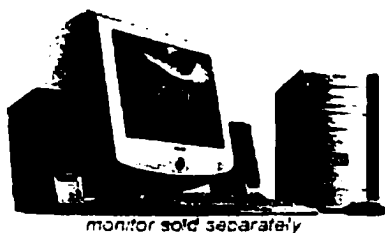
**Keep in touch with all your loved ones by selecting
one of our top selling cell phones.**

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SAMSUNG

and more...

ALL ON SALE



\$100 mail-in rebate

Save \$100 when you purchase any laptop or personal computer.

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This week's featured product....



General Electric 13" Television

Features:

V-Chip

Parental Control

Programmable Timers

Free Shipping on all digital cameras for more details [CLICK Shipping and Handling below.](#)

Deals & Rebates



\$5 Coupon if you purchase ALI on DVD. See the [Details](#)

\$20 REBATE ON CELL PHONES

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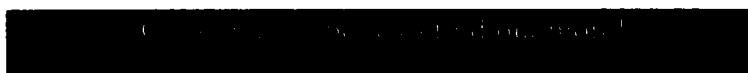
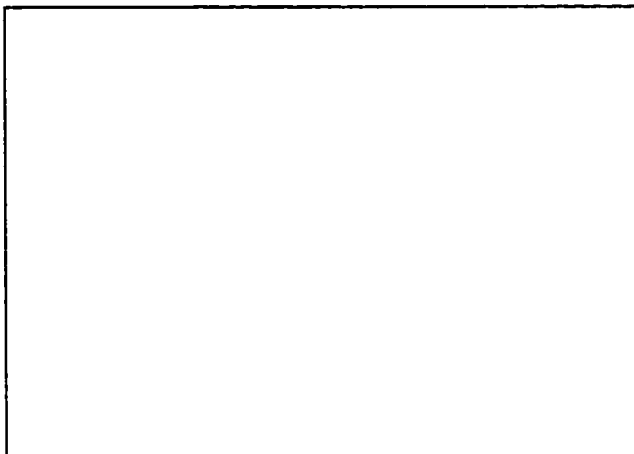
When you are finished with section B please proceed to the next section by following this link:

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*This week's featured product....
PLAYSTATION 2*



Check out some of our new games for PS2



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This week's featured product....
PLAYSTATION 2

**Customer Ratings**

=poor & *=excellent**

Image Quality ****

Sound Quality ****

Ease of Use * 1/2**

Quick and Easy Setup * 1/2**

PS 2 for a new low price of \$199.00

Product Features

- *Dimensions: 301mm(W)x 178mm(H) x 78mm(D)***
- *Weight: 2.1kg***
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- *128 bit***

Check out some of our games



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***This edition of Hot Shots has playability and style, not just simulation.
Design your own player or choose from our list of pros. Our Price
\$49.99***

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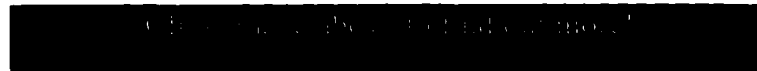
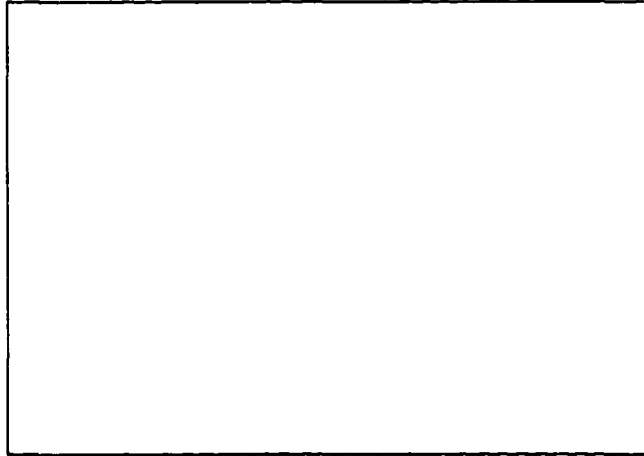
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***This week's featured product...
BAKING CHOCOLATE BY SCHARFFEN BERGER***



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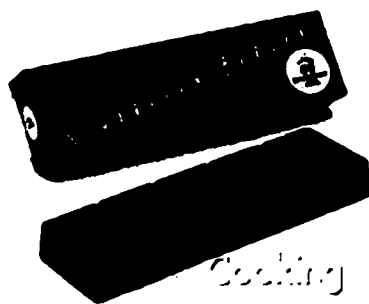
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Available in 9.7oz bars
with three different
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Bittersweet Chocolate
Semi-Sweet Chocolate
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**This American made
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Chocolate Sauce
Candied Ginger
Flour
Sugar
Extracts**

THIS MONTH'S FEATURED RECIPE



Recipe for Caramel Oatmeal Chewie:

**1 3/4 cups quick oats
1 3/4 cups all-purpose flour, divided
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1/4 teaspoon salt (optional)
3/4 cup butter or margarine
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1 cup caramel ice cream topping

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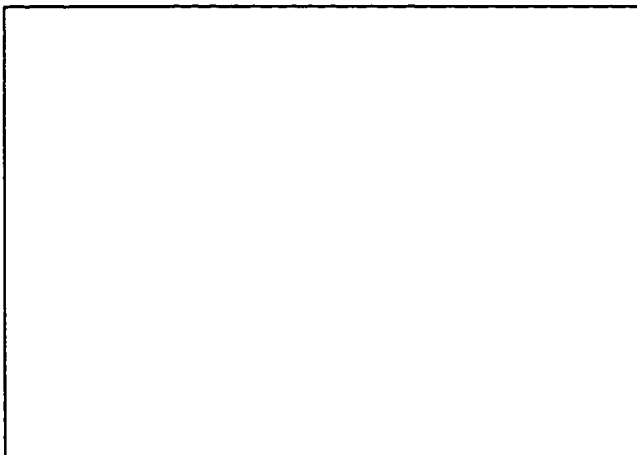
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This week's featured product....



***Free Shipping on all digital cameras for more details CLICK Shipping
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Deals & Rebates



**\$5 Coupon if you purchase ALI on DVD. See the
Details**

\$20 REBATE ON CELL PHONES

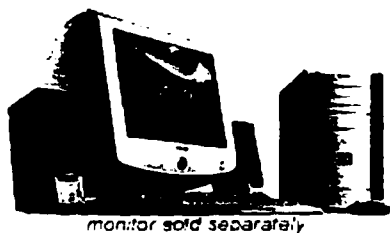
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one of our top selling cell phones.**

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and more...

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\$100 mail-in rebate

Save \$100 when you purchase any laptop or personal computer.

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This week's featured product....



OxiClean on sale for an all low \$19.99 per gallon.

OxiClean is the leading stain specialist that uses the power of oxygen to clean tough grease and stains off any surface and it is gentle on hands.



Check out our sale prices on other cleaning products.

Industrial sized push broom	\$8.75
32 oz 409 All purpose cleaner with refill	\$24.30
Heavy duty garbage bags	\$11.00
1 case contains 50 bags	

Deals & Rebates



\$5 Coupon if you purchase ALI on DVD. See the Details

\$20 REBATE ON CELL PHONES

Keep in touch with all your loved ones by selecting one of our top selling cell phones.

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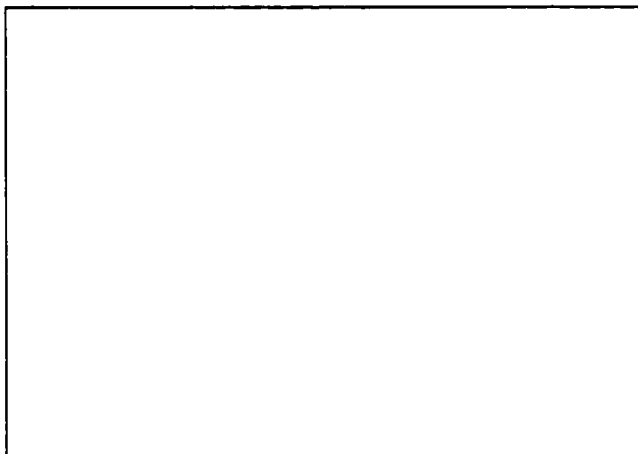
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***This week's featured product....
PLAYSTATION 2***



Check out some of our new games for PS2



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SAVINGSVENTURES.COM PRESENTS

***This week's featured product....
PLAYSTATION 2***

**Customer Ratings**

=poor & *=excellent**

Image Quality ****

Sound Quality ****

Ease of Use * 1/2**

Quick and Easy Setup * 1/2**

PS 2 for a new low price of \$199.00

Product Features

- *Dimensions: 301mm(W)x 178mm(H) x 78mm(D)***
- *Weight: 2.1kg***
- *Media: Playstation2 CD-ROM, Playstation CD-ROM, DVD player with DVD, DVD-R, CD, and CD-R/RW***
- *Dual Shock Controller***
- *AV Multi Cable to connect to television or VCR or AC power card***
- *32-Bit stereo sound***
- *2D/3D graphics acceleration***
- *128 bit***

Check out some of our games



Hot Shots Golf3

***This edition of Hot Shots has playability and style, not just simulation.
Design your own player or choose from our list of pros. Our Price
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As the player completes each successive mission more missions will open
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Thank you for you participation.

SAMPLE OF INSTRUCTIONS

High Task Involvement:

Thank you for agreeing to participate in this study.

A small discounter is interested in having internet presence and wants feedback on the proposed site. Your comments are very important to them.

Kindly visit the site <http://depaulmarketing.mine.nu/savingsventures/158/>. You will need about twenty (20) minutes to complete this exercise.

Explore the website, read the contents and make sure to examine all the linked pages and clickable images. Each site consists of an introductory page followed by the featured products of the week (three). After each product page there are a set of questions relating to the product and the webpage, complete those questions before moving on to the next page. The featured products on the site this week are chocolate, DVD Player and Play Station 2.

Kindly retrieve the following information from the website as you browse:

- i. The size of the chocolate featured on the site.**
- ii. The rebates offered on the products featured on the DVD Player webpage.**
- iii. The price of the two games featured on the PS2 webpage.**

Evaluate each item (question) separately and independently and work at a fairly high speed through these questions. Do not worry or puzzle over individual items. It is your first impressions, the immediate feelings about the items, that we want. On the other hand, please do not be careless because we want your true impressions.

Low Task Involvement:

Thank you for agreeing to participate in this study.

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10. not needed needed
1 2 3 4 5 6 7

F) To me Athletic gear is:

1. important unimportant
1 2 3 4 5 6 7
2. boring interesting
1 2 3 4 5 6 7
3. relevant irrelevant
1 2 3 4 5 6 7
4. exciting unexciting
1 2 3 4 5 6 7
5. means nothing means a lot to me
1 2 3 4 5 6 7
6. appealing unappealing
1 2 3 4 5 6 7
7. fascinating mundane
1 2 3 4 5 6 7
8. worthless valuable
1 2 3 4 5 6 7
9. involving uninvolving
1 2 3 4 5 6 7
10. not needed needed
1 2 3 4 5 6 7

G) To me chocolate is:

1. important unimportant
1 2 3 4 5 6 7
2. boring interesting
1 2 3 4 5 6 7

10. not needed needed
 1 2 3 4 5 6 7

J) *To me a camera is:*

1. important unimportant
 1 2 3 4 5 6 7
2. boring interesting
 1 2 3 4 5 6 7
3. relevant irrelevant
 1 2 3 4 5 6 7
4. exciting unexciting
 1 2 3 4 5 6 7
5. means nothing means a lot to me
 1 2 3 4 5 6 7
6. appealing unappealing
 1 2 3 4 5 6 7
7. fascinating mundane
 1 2 3 4 5 6 7
8. worthless valuable
 1 2 3 4 5 6 7
9. involving uninvolving
 1 2 3 4 5 6 7
10. not needed needed
 1 2 3 4 5 6 7

Please complete the following demographics:

1. Indicate whether male or female.
2. How old are you? _____

SITE INVOLVEMENT AND CONGRUITY PRETEST

Thank you for agreeing to participate in this pretest.

Sometime between Tuesday (3/19) and Thursday (3/21), kindly visit the site www.geocities.com/topgoodsforless/. You will need at least ten (10) minutes to complete this exercise.

Select the Group to which you have been assigned by clicking on it (Group 1,2 or 3), examine the pages relevant to your assigned group, then answer the attached questions with respect to the specific products advertised on those pages. You have been assigned to GROUP 1.

Kindly hand in your completed surveys for your extra credit points at the time you hand in your final or by March 21, 2002 at 6:00 pm. You may leave it in my box at your convenience. You will need to identify your response so that you can be awarded the extra credit points.

Evaluate each item separately and independently and work at a fairly high speed through these questions. Do not worry or puzzle over individual items. It is your first impressions, the immediate feelings about the items, that we want. On the other hand, please do not be careless because we want your true impressions.

A) To me the web-page relating to the PLAY STATION 2 is

- | | | | | | | | | |
|----|-------------------|---|---|---|---|---|---|--------------------|
| 1. | boring | 1 | 2 | 3 | 4 | 5 | 6 | interesting |
| | | | | | | | | 7 |
| 2. | unexciting | 1 | 2 | 3 | 4 | 5 | 6 | exciting |
| | | | | | | | | 7 |
| 3. | appealing | 1 | 2 | 3 | 4 | 5 | 6 | unappealing |
| | | | | | | | | 7 |
| 4. | involving | 1 | 2 | 3 | 4 | 5 | 6 | uninvolving |
| | | | | | | | | 7 |

Respond to the following items with respect to the product information about PS2 actually obtained by clicking on the image versus the information you expected to see.

- | | | | | | | | | |
|-----|----------------------|---|---|---|---|---|---|--------------------|
| 5. | unexpected | 1 | 2 | 3 | 4 | 5 | 6 | expected |
| | | | | | | | | 7 |
| 6. | dissimilar | 1 | 2 | 3 | 4 | 5 | 6 | dissimilar |
| | | | | | | | | 7 |
| 7. | very unlikely | 1 | 2 | 3 | 4 | 5 | 6 | very likely |
| | | | | | | | | 7 |
| 8. | unrelated | 1 | 2 | 3 | 4 | 5 | 6 | related |
| | | | | | | | | 7 |
| 9. | inappropriate | 1 | 2 | 3 | 4 | 5 | 6 | appropriate |
| | | | | | | | | 7 |
| 10. | irrelevant | 1 | 2 | 3 | 4 | 5 | 6 | relevant |
| | | | | | | | | 7 |
| 11. | fits poorly | 1 | 2 | 3 | 4 | 5 | 6 | fits well |
| | | | | | | | | 7 |

Use the space below to write down any comments about this web-page.

B) To me the web-page relating to the DVD'S is

- | | | | | | | | | |
|----|-------------------|---|---|---|---|---|---|--------------------|
| 1. | boring | 1 | 2 | 3 | 4 | 5 | 6 | interesting |
| | | | | | | | | 7 |
| 2. | unexciting | 1 | 2 | 3 | 4 | 5 | 6 | exciting |
| | | | | | | | | 7 |
| 3. | appealing | 1 | 2 | 3 | 4 | 5 | 6 | unappealing |
| | | | | | | | | 7 |
| 4. | involving | 1 | 2 | 3 | 4 | 5 | 6 | uninvolving |
| | | | | | | | | 7 |

Respond to the following items with respect to the product information about the DVD actually obtained by clicking on the image versus the information you expected to see.

- | | | | | | | | | |
|-----|----------------------|---|---|---|---|---|---|--------------------|
| 5. | unexpected | 1 | 2 | 3 | 4 | 5 | 6 | expected |
| | | | | | | | | 7 |
| 6. | dissimilar | 1 | 2 | 3 | 4 | 5 | 6 | dissimilar |
| | | | | | | | | 7 |
| 7. | very unlikely | 1 | 2 | 3 | 4 | 5 | 6 | very likely |
| | | | | | | | | 7 |
| 8. | unrelated | 1 | 2 | 3 | 4 | 5 | 6 | related |
| | | | | | | | | 7 |
| 9. | inappropriate | 1 | 2 | 3 | 4 | 5 | 6 | appropriate |
| | | | | | | | | 7 |
| 10. | irrelevant | 1 | 2 | 3 | 4 | 5 | 6 | relevant |
| | | | | | | | | 7 |
| 11. | fits poorly | 1 | 2 | 3 | 4 | 5 | 6 | fits well |
| | | | | | | | | 7 |

Use the space below to write down any comments about this web-page.

C) To me the web-page relating to DESSERTS is

- | | | | | | | | | |
|----|-------------------|---|---|---|---|---|---|--------------------|
| 1. | boring | 1 | 2 | 3 | 4 | 5 | 6 | interesting |
| | | | | | | | | 7 |
| 2. | unexciting | 1 | 2 | 3 | 4 | 5 | 6 | exciting |
| | | | | | | | | 7 |
| 3. | appealing | 1 | 2 | 3 | 4 | 5 | 6 | unappealing |
| | | | | | | | | 7 |
| 4. | involving | 1 | 2 | 3 | 4 | 5 | 6 | uninvolving |
| | | | | | | | | 7 |

Respond to the following items with respect to the product information about DESSERTS actually obtained by clicking on the image versus the information you expected to see.

- | | | | | | | | | |
|-----|----------------------|---|---|---|---|---|---|--------------------|
| 5. | unexpected | 1 | 2 | 3 | 4 | 5 | 6 | expected |
| | | | | | | | | 7 |
| 6. | dissimilar | 1 | 2 | 3 | 4 | 5 | 6 | dissimilar |
| | | | | | | | | 7 |
| 7. | very unlikely | 1 | 2 | 3 | 4 | 5 | 6 | very likely |
| | | | | | | | | 7 |
| 8. | unrelated | 1 | 2 | 3 | 4 | 5 | 6 | related |
| | | | | | | | | 7 |
| 9. | inappropriate | 1 | 2 | 3 | 4 | 5 | 6 | appropriate |
| | | | | | | | | 7 |
| 10. | irrelevant | 1 | 2 | 3 | 4 | 5 | 6 | relevant |
| | | | | | | | | 7 |
| 11. | fits poorly | 1 | 2 | 3 | 4 | 5 | 6 | fits well |
| | | | | | | | | 7 |

Use the space below to write down any comments about this web-page.

D) To me the web-page relating to the BICYCLE is

- | | | | | | | | | |
|----|-------------------|---|---|---|---|---|---|--------------------|
| 1. | boring | 1 | 2 | 3 | 4 | 5 | 6 | interesting |
| | | | | | | | | 7 |
| 2. | unexciting | 1 | 2 | 3 | 4 | 5 | 6 | exciting |
| | | | | | | | | 7 |
| 3. | appealing | 1 | 2 | 3 | 4 | 5 | 6 | unappealing |
| | | | | | | | | 7 |
| 4. | involving | 1 | 2 | 3 | 4 | 5 | 6 | uninvolving |
| | | | | | | | | 7 |

Respond to the following items with respect to the product information about the BICYCLE actually obtained by clicking on the image versus the information you expected to see.

- | | | | | | | | | |
|-----|----------------------|---|---|---|---|---|---|--------------------|
| 5. | unexpected | 1 | 2 | 3 | 4 | 5 | 6 | expected |
| | | | | | | | | 7 |
| 6. | dissimilar | 1 | 2 | 3 | 4 | 5 | 6 | dissimilar |
| | | | | | | | | 7 |
| 7. | very unlikely | 1 | 2 | 3 | 4 | 5 | 6 | very likely |
| | | | | | | | | 7 |
| 8. | unrelated | 1 | 2 | 3 | 4 | 5 | 6 | related |
| | | | | | | | | 7 |
| 9. | inappropriate | 1 | 2 | 3 | 4 | 5 | 6 | appropriate |
| | | | | | | | | 7 |
| 10. | irrelevant | 1 | 2 | 3 | 4 | 5 | 6 | relevant |
| | | | | | | | | 7 |
| 11. | fits poorly | 1 | 2 | 3 | 4 | 5 | 6 | fits well |
| | | | | | | | | 7 |

Use the space below to write down any comments about this web-page.

E) To me the web-page relating to CHOCOLATES is

- | | | | | | | | |
|-----------|-------------------|---|---|---|---|---|--------------------|
| 1. | boring | | | | | | interesting |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2. | unexciting | | | | | | exciting |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3. | appealing | | | | | | unappealing |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 4. | involving | | | | | | uninvolving |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Respond to the following items with respect to the product information about CHOCOLATES actually obtained by clicking on the image versus the information you expected to see.

- | | | | | | | | |
|------------|----------------------|---|---|---|---|---|--------------------|
| 5. | unexpected | | | | | | expected |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. | dissimilar | | | | | | dissimilar |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. | very unlikely | | | | | | very likely |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. | unrelated | | | | | | related |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. | inappropriate | | | | | | appropriate |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. | irrelevant | | | | | | relevant |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. | fits poorly | | | | | | fits well |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Use the space below to write down any comments about this web-page.

APPENDIX D
FINAL SURVEY

QUESTIONNAIRE

Section A

1) What came to mind as you viewed this page, write down anything you thought of regardless of whether you think it's relevant or not in the space provided:

2) What message is being communicated on this page?

3) Indicate your level of agreement with the following statements with respect to the webpage. So if you strongly disagree with the statement then circle "1." If you neither agree nor disagree (you are neutral) with the statement, then circle "4." However, if you strongly agree then you should circle "7."

i. The images and links took my mind away from the message.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

ii. I could easily read the message in spite of the images and links.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

iii. When the image appeared, my train of thought was interrupted.

Strongly Disagree **Neutral** **Strongly Agree**
 1 2 3 4 5 6 7

iv. **My attention was diverted by the images and links in the message.**

Strongly Disagree **Neutral** **Strongly Agree**
 1 2 3 4 5 6 7

v. **The images and links made it hard to read the message.**

Strongly Disagree **Neutral** **Strongly Agree**
 1 2 3 4 5 6 7

4) Think about what you actually saw. Compare it to what you expected. Was what you saw:

i.	unexpected	1	2	3	4	5	6	7	expected
ii.	dissimilar	1	2	3	4	5	6	7	similar
iii.	very unlikely	1	2	3	4	5	6	7	very likely
iv.	unrelated	1	2	3	4	5	6	7	related
v.	inappropriate	1	2	3	4	5	6	7	appropriate
vi.	irrelevant	1	2	3	4	5	6	7	relevant
vii.	fits poorly	1	2	3	4	5	6	7	fits well

5) To me the webpage is:

i.	boring	1	2	3	4	5	6	7	interesting
ii.	unexciting	1	2	3	4	5	6	7	exciting
iii.	appealing	1	2	3	4	5	6	7	unappealing
iv.	involving uninvolving		1	2	3	4	5	6	7
v.	attractive	1	2	3	4	5	6	7	not attractive
vi.	bad		1	2	3	4	5	6	7 good
vii.	unpleasant	1	2	3	4	5	6	7	pleasant
viii.	dull dynamic		1	2	3	4	5	6	7
ix.	depressing	1	2	3	4	5	6	7	refreshing
ix.	enjoyable	1	2	3	4	5	6	7	unenjoyable

6) My impression of this brand is:

- | | | | | | | | | | | |
|------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|--------------------|
| i. | negative | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| | positive | | | | | | | | | |
| ii. | good | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | bad |
| iii. | favorable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | unfavorable |

7) Based on the information presented, how likely would you be to buy this product?

very unlikely 1 2 3 4 5 6 7 very likely

Section B

1) What came to mind as you viewed this page, write down anything you thought of regardless of whether you think it's relevant or not in the space provided:

2) What message is being communicated on this page?

3) Indicate your level of agreement with the following statements with respect to the webpage. So if you

strongly disagree with the statement then circle "1." If you neither agree nor disagree (you are neutral) with the statement, then circle "4." However, if you strongly agree then you should circle "7."

vi. The images and links took my mind away from the message.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

vii. I could easily read the message in spite of the images and links.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

viii. When the image appeared, my train of thought was interrupted.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

ix. My attention was diverted by the images and links in the message.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

x. The images and links made it hard to read the message.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

4) Think about what you actually saw. Compare it to what you expected. Was what you saw:

i.	unexpected	1	2	3	4	5	6	7	expected
ii.	dissimilar	1	2	3	4	5	6	7	similar
iii.	very unlikely	1	2	3	4	5	6	7	very likely
iv.	unrelated	1	2	3	4	5	6	7	related
v.	inappropriate	1	2	3	4	5	6	7	appropriate
vi.	irrelevant	1	2	3	4	5	6	7	relevant
vii.	fits poorly	1	2	3	4	5	6	7	fits well

5) To me the webpage is:

i.	boring	1	2	3	4	5	6	7	interesting
ii.	unexciting	1	2	3	4	5	6	7	exciting
iii.	appealing	1	2	3	4	5	6	7	unappealing
iv.	involving uninvolving		1	2	3	4	5	6	7
v.	attractive	1	2	3	4	5	6	7	not attractive
vi.	bad		1	2	3	4	5	6	7 good
vii.	unpleasant	1	2	3	4	5	6	7	pleasant
viii.	dull dynamic		1	2	3	4	5	6	7
ix.	depressing	1	2	3	4	5	6	7	refreshing
ix.	enjoyable	1	2	3	4	5	6	7	unenjoyable

6) My impression of this brand is:

- | | | | | | | | | | | |
|------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|--------------------|
| i. | negative | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| | positive | | | | | | | | | |
| ii. | good | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | bad |
| iii. | favorable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | unfavorable |

7) Based on the information presented, how likely would you be to buy this product?

very unlikely 1 2 3 4 5 6 7 very likely

Section C

1) What came to mind as you viewed this page, write down anything you thought of regardless of whether you think it's relevant or not in the space provided:

2) What message is being communicated on this page?

3) Indicate your level of agreement with the following statements with respect to the webpage. So if you strongly disagree with the statement then circle "1." If you neither agree nor disagree (you are neutral) with the statement, then circle "4." However, if you strongly agree then you should circle "7."

xi. The images and links took my mind away from the message.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

xii. I could easily read the message in spite of the images and links.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

xiii. When the image appeared, my train of thought was interrupted.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

xiv. My attention was diverted by the images and links in the message.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

xv. The images and links made it hard to read the message.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

4) Think about what you actually saw. Compare it to what you expected. Was what you saw:

i.	unexpected	1	2	3	4	5	6	7	expected
ii.	dissimilar	1	2	3	4	5	6	7	similar
iii.	very unlikely	1	2	3	4	5	6	7	very likely
iv.	unrelated	1	2	3	4	5	6	7	related
v.	inappropriate	1	2	3	4	5	6	7	appropriate
vi.	irrelevant	1	2	3	4	5	6	7	relevant
vii.	fits poorly	1	2	3	4	5	6	7	fits well

5) To me the webpage is:

i.	boring	1	2	3	4	5	6	7	interesting
ii.	unexciting	1	2	3	4	5	6	7	exciting
iii.	appealing	1	2	3	4	5	6	7	unappealing
iv.	involving uninvolving		1	2	3	4	5	6	7
v.	attractive	1	2	3	4	5	6	7	not attractive
vi.	bad		1	2	3	4	5	6	7 good
vii.	unpleasant	1	2	3	4	5	6	7	pleasant
viii.	dull dynamic		1	2	3	4	5	6	7
ix.	depressing	1	2	3	4	5	6	7	refreshing
ix.	enjoyable	1	2	3	4	5	6	7	unenjoyable

6) My impression of this brand is:

- | | | | | | | | | | | |
|------|-----------|---|---|---|---|---|---|---|---|-------------|
| i. | negative | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| | positive | | | | | | | | | |
| ii. | good | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | bad |
| iii. | favorable | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | unfavorable |

7) Based on the information presented, how likely would you be to buy this product?

very unlikely	1	2	3	4	5	6	7	very likely
---------------	---	---	---	---	---	---	---	-------------

Section D

1) Indicate your level of agreement with the following statements with respect to your level of comfort with computers. So if you strongly disagree with the statement then circle "1." If you neither agree nor disagree (you are neutral,) with the statement, then circle "4." However, if you strongly agree then you should circle "7."

i. I enjoy working with computers.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4		5	6	7

ii. I like to use computers.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4		5	6	7

iii. Working with computers is fun for me.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4		5	6	7

iv. I look forward to working with computers.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4		5	6	7

v. I prefer to work with computers as opposed to any other tool.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4		5	6	7

i. I feel uncomfortable working with computers.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4		5	6	7

ii. I feel awkward around computers.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4		5	6	7

iii. Working with computers is an unpleasant experience for me.

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4		5	6	7

iv. **Computers make me nervous.**

Strongly Disagree **Neutral** **Strongly Agree**
 1 2 3 4 5 6 7

v. **Computers do not worry me.**

Strongly Disagree **Neutral** **Strongly Agree**
 1 2 3 4 5 6 7

2) Kindly indicate the average amount of time spent on the internet weekly.

- i. **Less than 1 hour.**
- ii. **More than 1 but less than 7 hours.**
- iii. **More than 7 but less than 15 hours.**
- iv. **More than 15 but less than 30 hours.**
- v. **More than 30 hours.**

3) Indicate your level of agreement with the following statements with respect to your expertise online. So if you strongly disagree with the statement then circle "1." If you neither agree nor disagree (you are neutral) with the statement, then circle "4." However, if you strongly agree then you should circle "7."

i. **I consider myself an expert online.**

Strongly Disagree **Neutral** **Strongly Agree**
 1 2 3 4 5 6 7

ii. **I am a novice online.**

Strongly Disagree **Neutral** **Strongly Agree**
 1 2 3 4 5 6 7

iii. **I am very knowledgeable about the internet.**

Strongly Disagree **Neutral** **Strongly Agree**
 1 2 3 4 5 6 7

iv. **I consider myself a savvy internet user.**

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

v. **I am a very competent internet user.**

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

vi. **My skills online leave much to be desired.**

Strongly Disagree					Neutral		Strongly Agree
1	2	3	4	5	6	7	

.

4) Kindly respond to these questions about you as a person.

i. Age _____ **years.**

ii. Gender **Male** **Female**

5) Write down any information, specifically viewed on the DVD player page that you

still remember in

the space below.

6) These questions relate to the page viewed featuring the DVD player.

i. What brand of DVD Player was featured?

ii. What specific DVD was featured under the “Rebates and Deals” section of that page?

iii. What other products were featured under the “Rebates and Deals” section of that page?

APPENDIX E
DESCRIPTIVES AND PEARSON CORRELATION COEFFICIENTS

Descriptives

Descriptive Statistics								
	N	Minimum	Maximum	Mean	Std. Deviation			
	Statistic	Statistic	Statistic	Statistic	Statistic			
Mapping Level	212	1.00	3.00	1.9481	.8041			
Task Involvement level	212	1.00	2.00	1.5236	.5006			
age of respondent	211	19.00	49.00	21.6919	3.2521			
gender of respondent	211	1.00	2.00	1.6635	.4736			
Distraction Measure	212	1.00	7.00	3.9358	1.3800			
Congruity Measure	208	1.00	7.00	4.2335	1.5212			
Webpage Involvement	209	1.00	6.75	2.9187	1.3265			
Webpage Attitude	207	1.00	6.14	3.1090	1.2051			
Brand Attitude	211	1.00	7.00	3.5371	1.4704			
Computer Anxiety	211	2.00	7.00	5.7454	1.0216			
Self Reported Expertise Measure	212	1.25	7.00	5.0660	1.1960			
free recall	212	-2.00	7.00	1.6321	1.5009			
Mean Aided Recall	112	.00	1.00	.4018	.4925			

purchase intention	212	1.00	7.00	2.8491	1.7185				
average internet usage weekly	212	.00	5.00	2.8255	.9453				
Valid N (listwise)	104								

Correlations

Correlations

		Mapping Level	Task Involvement level	purchase intention	average internet usage weekly
Mapping Level	Pearson Correlation	1.000	.044	-.191**	-.031
	Sig. (2-tailed)		.522	.005	.657
	N	212	212	212	212
Task Involvement level	Pearson Correlation	.044	1.000	-.007	-.046
	Sig. (2-tailed)	.522		.921	.502
	N	212	212	212	212
purchase intention	Pearson Correlation	-.191**	-.007	1.000	-.072
	Sig. (2-tailed)	.005	.921		.299
	N	212	212	212	212
average internet usage weekly	Pearson Correlation	-.031	-.046	-.072	1.000
	Sig. (2-tailed)	.657	.502	.299	
	N	212	212	212	212
age of respondent	Pearson Correlation	-.067	.042	-.017	-.017
	Sig. (2-tailed)	.333	.549	.804	.804
	N	211	211	211	211
gender of respondent	Pearson Correlation	-.051	-.013	.011	-.097
	Sig. (2-tailed)	.465	.851	.873	.161
	N	211	211	211	211
Distraction Measure	Pearson Correlation	.268**	-.021	-.313**	.033
	Sig. (2-tailed)	.000	.760	.000	.835
	N	212	212	212	212
Congruity Measure	Pearson Correlation	-.442**	.016	.339**	-.037
	Sig. (2-tailed)	.000	.823	.000	.593
	N	208	208	208	208
Webpage Involvement	Pearson Correlation	-.097	.074	.357**	-.075
	Sig. (2-tailed)	.163	.284	.000	.282
	N	209	209	209	209
Webpage Attitude	Pearson Correlation	-.114	.076	.467**	-.072
	Sig. (2-tailed)	.103	.277	.000	.300
	N	207	207	207	207
Brand Attitude	Pearson Correlation	-.256**	.039	.629**	-.060
	Sig. (2-tailed)	.000	.572	.000	.382
	N	211	211	211	211
Computer Anxiety	Pearson Correlation	-.003	-.156*	-.111	.354**
	Sig. (2-tailed)	.968	.024	.107	.000
	N	211	211	211	211
Self Reported Expertise Measure	Pearson Correlation	.021	-.109	-.111	.328**
	Sig. (2-tailed)	.763	.112	.107	.000
	N	212	212	212	212
Mean Aided Recall	Pearson Correlation	-.381**	.069	.126	-.096
	Sig. (2-tailed)	.000	.468	.184	.314
	N	112	112	112	112
free recall	Pearson Correlation	-.224**	-.007	.122	-.045
	Sig. (2-tailed)	.001	.916	.077	.510
	N	212	212	212	212

Correlations

		age of respondent	gender of respondent	Distraction Measure	Congruity Measure
Mapping Level	Pearson Correlation	-.067	-.051	.268**	-.442**
	Sig. (2-tailed)	.333	.465	.000	.000
	N	211	211	212	208
Task Involvement level	Pearson Correlation	.042	-.013	-.021	.016
	Sig. (2-tailed)	.548	.851	.760	.823
	N	211	211	212	208
purchase intention	Pearson Correlation	-.017	.011	-.313**	.339**
	Sig. (2-tailed)	.804	.873	.000	.000
	N	211	211	212	208
average internet usage weekly	Pearson Correlation	-.017	-.097	.033	-.037
	Sig. (2-tailed)	.804	.161	.635	.593
	N	211	211	212	208
age of respondent	Pearson Correlation	1.000	.041	.158*	-.042
	Sig. (2-tailed)		.558	.022	.552
	N	211	211	211	207
gender of respondent	Pearson Correlation	.041	1.000	-.003	-.043
	Sig. (2-tailed)	.558		.962	.541
	N	211	211	211	207
Distraction Measure	Pearson Correlation	.158*	-.003	1.000	-.486**
	Sig. (2-tailed)	.022	.962		.000
	N	211	211	212	208
Congruity Measure	Pearson Correlation	-.042	-.043	-.486**	1.000
	Sig. (2-tailed)	.552	.541	.000	
	N	207	207	208	208
Webpage Involvement	Pearson Correlation	-.155*	-.129	-.275**	.324**
	Sig. (2-tailed)	.025	.063	.000	.000
	N	208	208	209	208
Webpage Attitude	Pearson Correlation	-.095	-.062	-.333**	.327**
	Sig. (2-tailed)	.176	.373	.000	.000
	N	206	206	207	204
Brand Attitude	Pearson Correlation	.009	-.046	-.398**	.338**
	Sig. (2-tailed)	.897	.509	.000	.000
	N	210	210	211	208
Computer Anxiety	Pearson Correlation	.023	.007	-.007	.009
	Sig. (2-tailed)	.741	.914	.914	.897
	N	210	210	211	207
Self Reported Expertise Measure	Pearson Correlation	-.036	-.150*	.104	-.044
	Sig. (2-tailed)	.607	.026	.131	.527
	N	211	211	212	208
Mean Aided Recall	Pearson Correlation	.040	-.117	-.009	.123
	Sig. (2-tailed)	.679	.222	.926	.203
	N	111	111	112	108
free recall	Pearson Correlation	.007	-.017	.017	.054
	Sig. (2-tailed)	.915	.803	.801	.440
	N	211	211	212	208

Correlations

		Webpage Involvement	Webpage Attitude	Brand Attitude	Computer Anxiety
Mapping Level	Pearson Correlation	-.067	-.114	-.256**	-.003
	Sig. (2-tailed)	.163	.103	.000	.968
	N	209	207	211	211
Task Involvement level	Pearson Correlation	.074	.076	.039	-.156*
	Sig. (2-tailed)	.284	.277	.572	.024
	N	209	207	211	211
purchase intention	Pearson Correlation	.357**	.487**	.629**	-.111
	Sig. (2-tailed)	.000	.000	.000	.107
	N	209	207	211	211
average internet usage weekly	Pearson Correlation	-.075	-.072	-.060	.354**
	Sig. (2-tailed)	.282	.300	.382	.000
	N	209	207	211	211
age of respondent	Pearson Correlation	-.155*	-.095	.009	.023
	Sig. (2-tailed)	.025	.176	.897	.741
	N	208	206	210	210
gender of respondent	Pearson Correlation	-.129	-.062	-.046	.007
	Sig. (2-tailed)	.063	.373	.509	.914
	N	208	206	210	210
Distraction Measure	Pearson Correlation	-.275**	-.333**	-.398**	-.007
	Sig. (2-tailed)	.000	.000	.000	.914
	N	209	207	211	211
Congruity Measure	Pearson Correlation	.324**	.327**	.338**	.009
	Sig. (2-tailed)	.000	.000	.000	.897
	N	206	204	208	207
Webpage Involvement	Pearson Correlation	1.000	.868**	.608**	-.075
	Sig. (2-tailed)	.	.000	.000	.282
	N	209	206	209	208
Webpage Attitude	Pearson Correlation	.868**	1.000	.731**	-.108
	Sig. (2-tailed)	.000	.	.000	.122
	N	206	207	207	206
Brand Attitude	Pearson Correlation	.608**	.731**	1.000	-.078
	Sig. (2-tailed)	.000	.000	.	.263
	N	209	207	211	210
Computer Anxiety	Pearson Correlation	-.075	-.108	-.078	1.000
	Sig. (2-tailed)	.282	.122	.263	.
	N	208	206	210	211
Self Reported Expertise Measure	Pearson Correlation	.004	-.037	-.082	.604**
	Sig. (2-tailed)	.953	.595	.237	.000
	N	209	207	211	211
Mean Aided Recall	Pearson Correlation	-.002	.052	.119	.066
	Sig. (2-tailed)	.986	.593	.214	.494
	N	110	109	111	111
free recall	Pearson Correlation	.011	.042	.114	-.091
	Sig. (2-tailed)	.877	.544	.099	.189
	N	209	207	211	211

Correlations

		Self Reported Expertise Measure	Mean Aided Recall	free recall
Mapping Level	Pearson Correlation	.021	-.361**	-.224**
	Sig. (2-tailed)	.763	.000	.001
	N	212	112	212
Task Involvement level	Pearson Correlation	-.109	.069	-.007
	Sig. (2-tailed)	.112	.468	.916
	N	212	112	212
purchase intention	Pearson Correlation	-.111	.126	.122
	Sig. (2-tailed)	.107	.184	.077
	N	212	112	212
average internet usage weekly	Pearson Correlation	.326**	-.096	-.045
	Sig. (2-tailed)	.000	.314	.510
	N	212	112	212
age of respondent	Pearson Correlation	-.036	.040	.007
	Sig. (2-tailed)	.607	.679	.915
	N	211	111	211
gender of respondent	Pearson Correlation	-.150*	-.117	-.017
	Sig. (2-tailed)	.029	.222	.603
	N	211	111	211
Distraction Measure	Pearson Correlation	.104	-.009	.017
	Sig. (2-tailed)	.131	.926	.801
	N	212	112	212
Congruity Measure	Pearson Correlation	-.044	.123	.054
	Sig. (2-tailed)	.527	.203	.440
	N	208	108	208
Webpage Involvement	Pearson Correlation	.004	-.002	.011
	Sig. (2-tailed)	.953	.986	.877
	N	209	110	209
Webpage Attitude	Pearson Correlation	-.037	.052	.042
	Sig. (2-tailed)	.595	.593	.544
	N	207	109	207
Brand Attitude	Pearson Correlation	-.062	.119	.114
	Sig. (2-tailed)	.237	.214	.099
	N	211	111	211
Computer Anxiety	Pearson Correlation	.604**	.066	-.091
	Sig. (2-tailed)	.000	.494	.189
	N	211	111	211
Self Reported Expertise Measure	Pearson Correlation	1.000	-.028	-.068
	Sig. (2-tailed)		.772	.327
	N	212	112	212
Mean Aided Recall	Pearson Correlation	-.026	1.000	.379**
	Sig. (2-tailed)	.772		.000
	N	112	112	112
free recall	Pearson Correlation	-.068	.379**	1.000
	Sig. (2-tailed)	.327	.000	
	N	212	112	212

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

APPENDIX F

EFFECT OF CONGRUITY ON ATTITUDE AND INTENTION

Oneway: Mapping Level on Attitudes & Purchase Intention

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Webpage Attitude	Between Groups	3.923	2	1.962	1.355	.260
	Within Groups	295.248	204	1.447		
	Total	299.171	206			
Brand Attitude	Between Groups	29.851	2	14.926	7.319	.001
	Within Groups	424.163	208	2.039		
	Total	454.015	210			
purchase intention	Between Groups	26.253	2	13.126	4.596	.011
	Within Groups	596.917	209	2.856		
	Total	623.170	211			

Post Hoc Tests

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Mapping Level	(J) Mapping Level	Mean Difference (I-J)	Std. Error	Sig.
Webpage Attitude	successful	Moderately Misleading	.1324	.2005	.787
		Extremely Misleading	.3412	.2082	.229
	Moderately Misleading	successful	-.1324	.2005	.787
		Extremely Misleading	.2088	.2069	.571
	Extremely Misleading	successful	-.3412	.2082	.229
		Moderately Misleading	-.2088	.2069	.571
Brand Attitude	successful	Moderately Misleading	.5000	.2348	.084
		Extremely Misleading	.9328*	.2448	.000
	Moderately Misleading	successful	-.5000	.2348	.084
		Extremely Misleading	.4328	.2448	.180
	Extremely Misleading	successful	-.9328*	.2448	.000
		Moderately Misleading	-.4328	.2448	.180
purchase intention	successful	Moderately Misleading	.6710*	.2769	.041
		Extremely Misleading	.8005*	.2897	.016
	Moderately Misleading	successful	-.6710*	.2769	.041
		Extremely Misleading	.1295	.2888	.895
	Extremely Misleading	successful	-.8005*	.2897	.016
		Moderately Misleading	-.1295	.2888	.895

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Mapping Level	(J) Mapping Level	95% Confidence Interval	
			Lower Bound	Upper Bound
Webpage Attitude	successful	Moderately Misleading	- .3376	.6023
		Extremely Misleading	-.1468	.8292
	Moderately Misleading	successful	-.6023	.3376
		Extremely Misleading	-.2760	.6937
	Extremely Misleading	successful	-.8292	.1468
		Moderately Misleading	-.6937	.2760
Brand Attitude	successful	Moderately Misleading	-.5022E-02	.10502
		Extremely Misleading	.3591	1.5065
	Moderately Misleading	successful	-1.0502	5.022E-02
		Extremely Misleading	-.1409	1.0065
	Extremely Misleading	successful	-1.5065	-.3591
		Moderately Misleading	-1.0065	.1409
purchase intention	successful	Moderately Misleading	2.201E-02	1.3200
		Extremely Misleading	.1215	1.4795
	Moderately Misleading	successful	-1.3200	-2.2009E-02
		Extremely Misleading	-.5474	.8064
	Extremely Misleading	successful	-1.4795	-.1215
		Moderately Misleading	-.8064	.5474

* The mean difference is significant at the .05 level.

Homogeneous Subsets

Webpage Attitude

Tukey HSD^{a,b}

Mapping Level	N	Subset for alpha = .05
		1
Extremely Misleading	63	2.9184
Moderately Misleading	73	3.1272
successful	71	3.2596
Sig.		.220

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 68.719.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Brand AttitudeTukey HSD^{a, b}

Mapping Level	N	Subset for alpha = .05	
		1	2
Extremely Misleading	63	3.0582	
Moderately Misleading	74	3.4910	3.4910
successful	74		3.9910
Sig.		.172	.096

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 69.930.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

purchase intentionTukey HSD^{a, b}

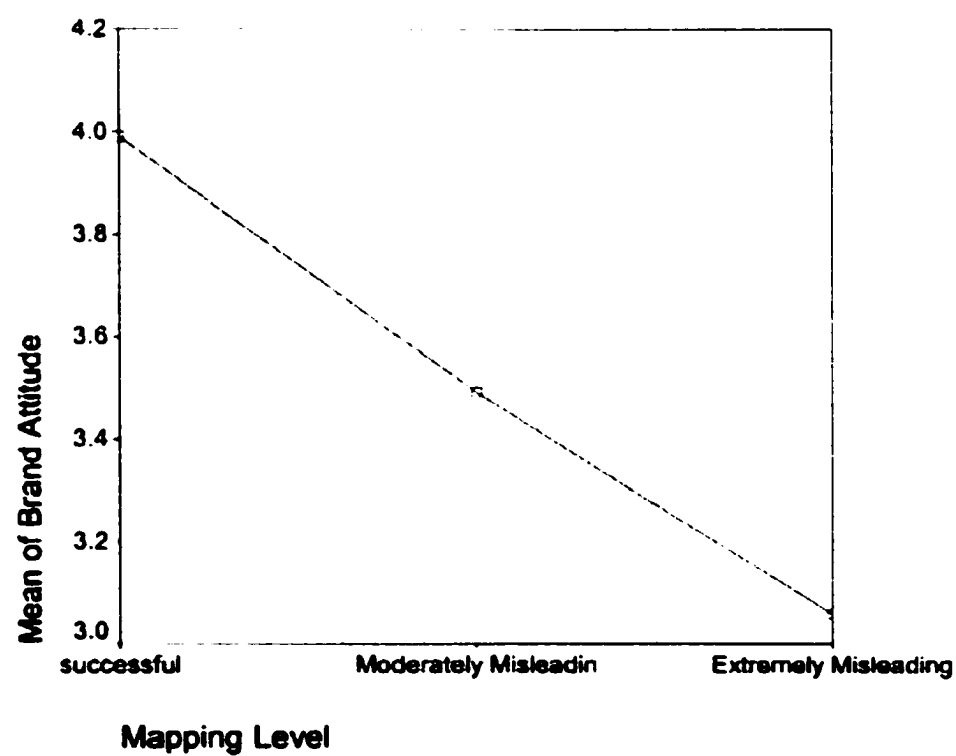
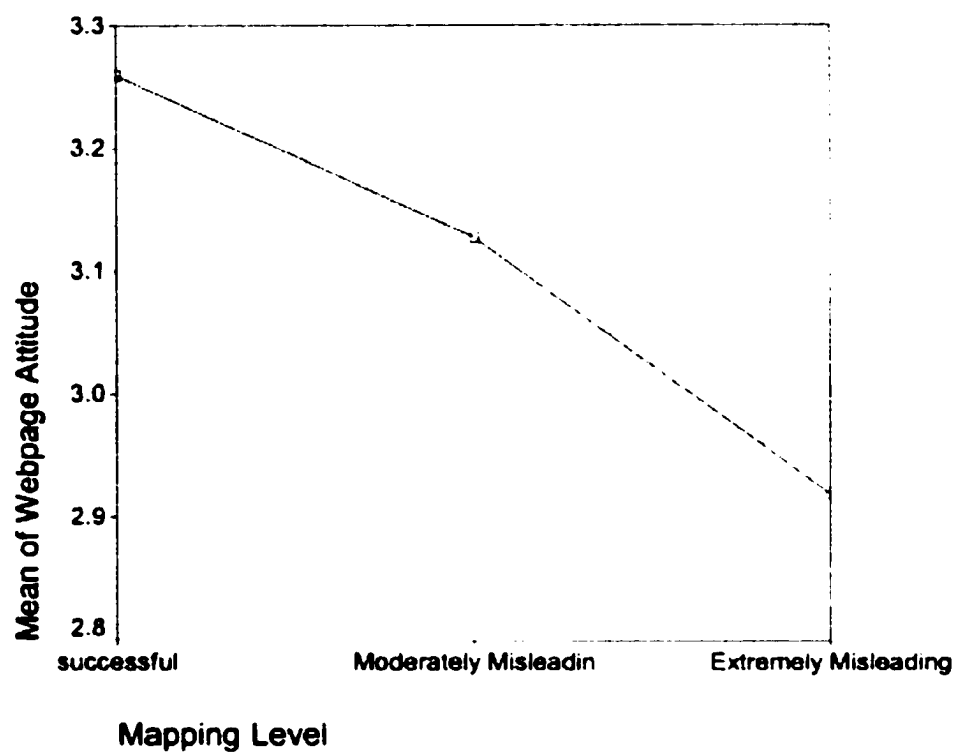
Mapping Level	N	Subset for alpha = .05	
		1	2
Extremely Misleading	63	2.5238	
Moderately Misleading	75	2.6533	
successful	74		3.3243
Sig.		.893	1.000

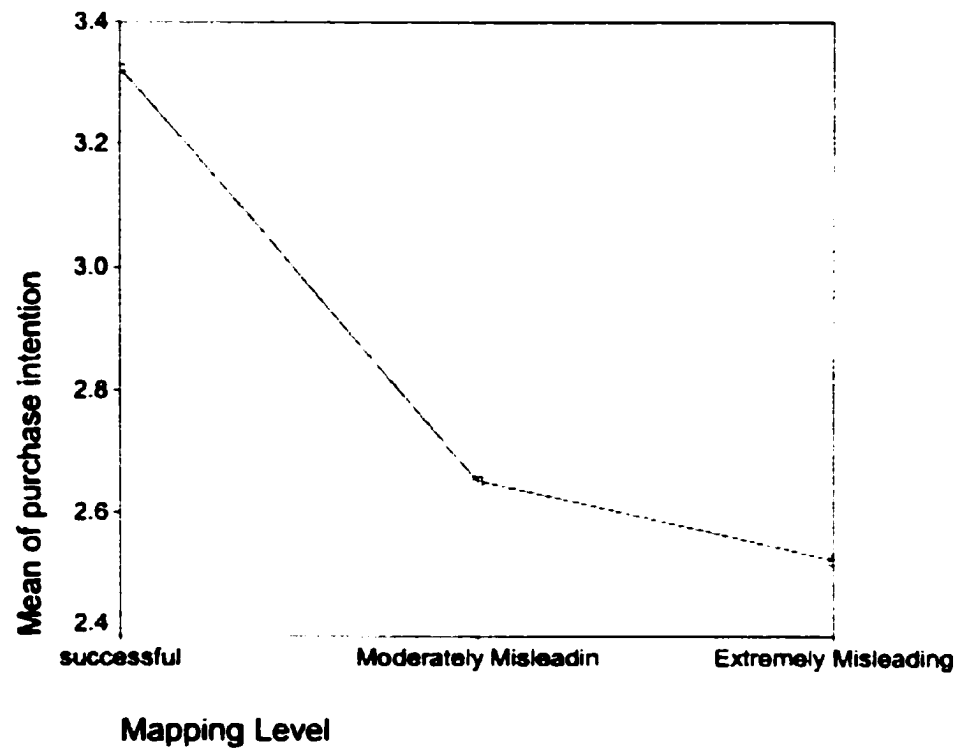
Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 70.225.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Means Plots





General Linear Model

Between-Subjects Factors

		Value Label	N
Mapping Level	1.00	successful	70
	2.00	Moderately Misleading	71
	3.00	Extremely Misleading	63

Multivariate Tests^c

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.931	669.443 ^a	4.000	198.000	
	Wilks' Lambda	.069	669.443 ^a	4.000	198.000	
	Hotelling's Trace	13.524	669.443 ^a	4.000	198.000	
	Roy's Largest Root	13.524	669.443 ^a	4.000	198.000	
RX	Pillai's Trace	.308	9.042	8.000	398.000	
	Wilks' Lambda	.700	9.650 ^a	8.000	396.000	
	Hotelling's Trace	.417	10.259	8.000	394.000	
	Roy's Largest Root	.387	19.275 ^b	4.000	199.000	

a. Exact statistic

b. The statistic is an upper bound on F that yields a lower bound on the significance level.

c. Design: Intercept+RX

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Congruity Measures	114.910 ^a	2	57.455	32.274	.000
	Webpage Attitude	3.792 ^a	2	.896	1.306	.273
	Brand Attitude	51.750 ^a	2	25.875	7.060	.001
	purchase intention	20.733 ^a	2	10.377	4.730	.010
Intercept	Congruity Measures	3512.908	1	3512.908	2029.452	.000
	Webpage Attitude	1965.007	1	1965.007	1354.159	.000
	Brand Attitude	2536.665	1	2536.666	1253.973	.000
	purchase intention	1675.030	1	1675.030	602.062	.000
RX	Congruity Measures	114.910	2	57.455	32.274	.000
	Webpage Attitude	3.792	2	.896	1.306	.273
	Brand Attitude	51.750	2	25.875	7.060	.001
	purchase intention	20.733	2	10.377	4.730	.010
Error	Congruity Measures	357.828	204	.878		
	Webpage Attitude	291.681	204	.741		
	Brand Attitude	410.570	204	2.072		
	purchase intention	503.423	204	2.028		
Total	Congruity Measures	4162.347	204			
	Webpage Attitude	2274.715	204			
	Brand Attitude	5015.444	204			
	purchase intention	5290.000	204			
Corrected Total	Congruity Measures	472.738	203			
	Webpage Attitude	295.473	203			
	Brand Attitude	445.320	203			
	purchase intention	605.176	203			

a. R Squared = .243 (Adjusted R Squared = .236)

b. R Squared = .011 (Adjusted R Squared = .000)

c. R Squared = .071 (Adjusted R Squared = .052)

d. R Squared = .035 (Adjusted R Squared = .015)

APPENDIX G
MEDIATIONAL ROLE OF DISTRACTION: EFFECT ON
CONGRUITY/ATTITUDE AND INTENTION RELATIONS
Regression: Mapping Level on Distraction Mediation of Attitude & Intentions

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	MAPHI, MAPMOD(a)	.	Enter
a All requested variables entered.			
b Dependent Variable: Distraction Measure			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.297(a)	.088	.080	1.3240
a Predictors: (Constant), MAPHI, MAPMOD				

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35.494	2	17.747	10.124	.000(a)
	Residual	366.354	209	1.753		
	Total	401.848	211			
a Predictors: (Constant), MAPHI, MAPMOD						
b Dependent Variable: Distraction Measure						

Coefficients(a)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	4.562	.167		27.349	.000
	MAPMOD	-.842	.226	-.292	-3.721	.000
	MAPHI	-.940	.227	-.326	-4.143	.000
a Dependent Variable: Distraction Measure						

Regression: Site Attitude on Mapping Level**Variables Entered/Removed(b)**

Model	Variables Entered	Variables Removed	Method
1	MAPHI, MAPMOD(a)	.	Enter
a All requested variables entered.			
b Dependent Variable: Webpage Attitude			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.115(a)	.013	.003	1.2030
a Predictors: (Constant), MAPHI, MAPMOD				

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.923	2	1.962	1.355	.260(a)
	Residual	295.248	204	1.447		
	Total	299.171	206			
a Predictors: (Constant), MAPHI, MAPMOD						
b Dependent Variable: Webpage Attitude						

Coefficients(a)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	2.918	.152		19.254	.000
	MAPMOD	.209	.207	.083	1.009	.314
	MAPHI	.341	.208	.135	1.639	.103
a Dependent Variable: Webpage Attitude						

Regression: Site Attitude on Distraction & Mapping Level**Variables Entered/Removed(b)**

Model	Variables Entered	Variables Removed	Method
1	Distraction Measure, MAPMOD, MAPHI(a)		Enter
2		MAPMOD	Backward (criterion)

			Probability of F-to-remove >= .100).
3		MAPHI	Backward (criterion: Probability of F-to-remove >= .100).
a All requested variables entered.			
b Dependent Variable: Webpage Attitude			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.335(a)	.112	.099	1.1439
2	.335(b)	.112	.103	1.1412
3	.333(c)	.111	.106	1.1392
a Predictors: (Constant), Distraction Measure, MAPMOD, MAPHI				
b Predictors: (Constant), Distraction Measure, MAPHI				
c Predictors: (Constant), Distraction Measure				

ANOVA(d)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.561	3	11.187	8.550	.000(a)
	Residual	265.611	203	1.308		
	Total	299.171	206			
2	Regression	33.513	2	16.756	12.867	.000(b)
	Residual	265.659	204	1.302		

3	Total	299.171	20 6			
	Regression	33.134	1	33.134	25.53 2	.000(c)
	Residual	266.038	20 5	1.298		
	Total	299.171	20 6			
a Predictors: (Constant), Distraction Measure, MAPMOD, MAPHI						
b Predictors: (Constant), Distraction Measure, MAPHI						
c Predictors: (Constant), Distraction Measure						
d Dependent Variable: Webpage Attitude						

Coefficients(a)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	4.228	.311		13.61 1	.00 0
	MAPMOD	-3.902E-02	.203	-.016	-.192	.84 8
	MAPHI	6.906E-02	.206	.027	.335	.73 8
	Distraction Measure	-.287	.060	-.330	-4.759	.00 0
2	(Constant)	4.195	.258		16.27 6	.00 0
	MAPHI	9.144E-02	.169	.036	.540	.59 0
	Distraction Measure	-.284	.058	-.327	-4.884	.00 0

3	(Constant)	4.247	.239		17.791	.000
	Distraction Measure	-.289	.057	-.333	-5.053	.000
a Dependent Variable: Webpage Attitude						

Excluded Variables(c)

		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
Model						Tolerance
2	MAPMOD	.016(a)	.192	.848	-.013	.669
3	MAPMOD	.031(b)	.464	.643	-.032	.984
	MAPHI	.036(b)	.540	.590	.038	.972
a Predictors in the Model: (Constant), Distraction Measure, MAPHI						
b Predictors in the Model: (Constant), Distraction Measure						
c Dependent Variable: Webpage Attitude						

Regression: Brand Attitude on Mapping Level

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	MAPHI, MAPMOD(a)	.	Enter
a All requested variables entered.			
b Dependent Variable: Brand Attitude			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.256(a)	.066	.057	1.4280
a Predictors: (Constant), MAPHI, MAPMOD				

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.851	2	14.926	7.319	.001(a)
	Residual	424.163	208	2.039		
	Total	454.015	210			
a Predictors: (Constant), MAPHI, MAPMOD						
b Dependent Variable: Brand Attitude						

Coefficients(a)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	3.058	.180		16.998	.000
	MAPMOD	.433	.245	.141	1.768	.079
	MAPHI	.933	.245	.303	3.810	.000
a Dependent Variable: Brand Attitude						

Regression: Brand Attitude on DIstraction & Mapping Level

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Distraction Measure, MAPMOD, MAPHI(a)		Enter
2		MAPMOD	Backward (criterion: Probability of F-to-remove >= .100).
a All requested variables entered.			
b Dependent Variable: Brand Attitude			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.431(a)	.185	.174	1.3366
2	.430(b)	.185	.177	1.3341
a Predictors: (Constant), Distraction Measure, MAPMOD, MAPHI				
b Predictors: (Constant), Distraction Measure, MAPHI				

ANOVA(c)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	84.217	3	28.072	15.714	.000(a)
	Residual	369.798	207	1.786		
	Total	454.015	210			
2	Regression	83.816	2	41.908	23.546	.000(b)

Residual	370.199	20 8	1.780		
Total	454.015	21 0			
a Predictors: (Constant), Distraction Measure, MAPMOD, MAPHI					
b Predictors: (Constant), Distraction Measure, MAPHI					
c Dependent Variable: Brand Attitude					

Coefficients(a)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	4.817	.361		13.360	.000
	MAPMOD	.112	.236	.036	.474	.636
	MAPHI	.570	.238	.186	2.393	.018
	Distraction Measure	-.385	.070	-.362	-5.516	.000
2	(Constant)	4.911	.300		16.343	.000
	MAPHI	.506	.195	.165	2.590	.010
	Distraction Measure	-.394	.068	-.370	-5.823	.000
a Dependent Variable: Brand Attitude						

Excluded Variables(b)

						Collinearity Statistics
Model		Beta In	t	Sig.	Partial Correlation	Tolerance
2	MAPMOD	.036(a)	.474	.636	.033	.665
a Predictors in the Model: (Constant), Distraction Measure, MAPHI						
b Dependent Variable: Brand Attitude						

Regression: Purchase Intention on Mapping Level**Variables Entered/Removed(b)**

Model	Variables Entered	Variables Removed	Method
1	MAPHI, MAPMOD(a)		Enter
2		MAPMOD	Backward (criterion: Probability of F-to-remove >= .100).
a All requested variables entered.			
b Dependent Variable: purchase intention			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.205(a)	.042	.033	1.6900
2	.203(b)	.041	.037	1.6868
a Predictors: (Constant), MAPHI, MAPMOD				
b Predictors: (Constant), MAPHI				

ANOVA(c)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.253	2	13.126	4.596	.011(a)
	Residual	596.917	209	2.856		
	Total	623.170	211			
2	Regression	25.678	1	25.678	9.025	.003(b)
	Residual	597.492	210	2.845		
	Total	623.170	211			
a Predictors: (Constant), MAPHI, MAPMOD						
b Predictors: (Constant), MAPHI						
c Dependent Variable: purchase intention						

Coefficients(a)						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.524	.213		11.853	.000
	MAPMOD	.130	.289	.036	.448	.654
	MAPHI	.801	.290	.223	2.763	.006
2	(Constant)	2.594	.144		18.067	.000

MAPHI	.730	.243	.203	3.004	.003
a Dependent Variable: purchase intention					

Excluded Variables(b)

		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
Model						Tolerance
2	MAPMOD	.036(a)	.448	.654	.031	.706
a Predictors in the Model: (Constant), MAPHI						
b Dependent Variable: purchase intention						

Regression: Purchase Intention on Distraction & Mapping Level

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Distraction Measure, MAPMOD, MAPHI(a)	.	Enter
2	.	MAPMOD	Backward (criterion: Probability of F-to-remove >= .100).
a All requested variables entered.			
b Dependent Variable: purchase intention			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.350(a)	.123	.110	1.6211

	)			
2	.348(b))	.121	.113	1.6188
a Predictors: (Constant), Distraction Measure, MAPMOD, MAPHI				
b Predictors: (Constant), Distraction Measure, MAPHI				

ANOVA(c)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	76.548	3	25.516	9.709	.000(a)
	Residual	546.622	208	2.628		
	Total	623.170	211			
2	Regression	75.479	2	37.740	14.402	.000(b)
	Residual	547.691	209	2.621		
	Total	623.170	211			
a Predictors: (Constant), Distraction Measure, MAPMOD, MAPHI						
b Predictors: (Constant), Distraction Measure, MAPHI						
c Dependent Variable: purchase intention						

Coefficients(a)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	4.214	.437		9.642	.000

2	MAPMOD	-.182	.286	-.051	-.638	.524
	MAPHI	.452	.289	.126	1.564	.119
	Distraction Measure	-.371	.085	-.298	-4.375	.000
	(Constant)	4.060	.363		11.174	.000
	MAPHI	.558	.237	.155	2.358	.019
	Distraction Measure	-.357	.082	-.287	-4.359	.000
a Dependent Variable: purchase intention						

Excluded Variables(b)

		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
Model						Tolerance
2	MAPMOD	.051(a)	.638	.524	-.044	.663
a Predictors in the Model: (Constant), Distraction Measure, MAPHI						
b Dependent Variable: purchase intention						

Regression: Purchase Intention on Distraction

Variables Entered/Removed(b)

Model	Variables Entered	Variables Removed	Method
1	Distraction Measure(a)		Enter
a All requested variables entered.			

b Dependent Variable: purchase intention

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.313(a)	.098	.093	1.6363
a Predictors: (Constant), Distraction Measure				

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	60.912	1	60.912	22.750	.000(a)
	Residual	562.257	210	2.677		
	Total	623.170	211			
a Predictors: (Constant), Distraction Measure						
b Dependent Variable: purchase intention						

Coefficients(a)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	4.381	.340		12.873	.000
	Distraction Measure	-.389	.082	-.313	-4.770	.000
a Dependent Variable: purchase intention						

Regression: Brand Attitude on Distraction**Variables Entered/Removed(b)**

Model	Variables Entered	Variables Removed	Method
1	Distraction Measure(a)		Enter
a All requested variables entered.			
b Dependent Variable: Brand Attitude			

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.398(a)	.158	.154	1.3522
a Predictors: (Constant), Distraction Measure				

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	71.877	1	71.877	39.311	.000(a)
	Residual	382.138	209	1.828		
	Total	454.015	210			
a Predictors: (Constant), Distraction Measure						
b Dependent Variable: Brand Attitude						

Coefficients(a)						
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	5.205	.282		18.466	.000
	Distraction Measure	-.423	.068	-.398	-6.270	.000
a Dependent Variable: Brand Attitude						

Regression: Site Attitude on Distraction

Variables Entered/Removed(b)			
Model	Variables Entered	Variables Removed	Method
1	Distraction Measure(a)		Enter
a All requested variables entered.			
b Dependent Variable: Webpage Attitude			

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.333(a)	.111	.106	1.1392
a Predictors: (Constant), Distraction Measure				

ANOVA(b)						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.134	1	33.134	25.532	.000(a)

Residual	266.038	20 5	1.298		
Total	299.171	20 6			
a Predictors: (Constant), Distraction Measure					
b Dependent Variable: Webpage Attitude					

Coefficients(a)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	4.247	.239		17.791	.000
	Distraction Measure	-.289	.057	-.333	-5.053	.000
a Dependent Variable: Webpage Attitude						

APPENDIX H
MODERATING ROLE OF DISTRACTION ON CONGRUITY/ATTITUDE
RELATION

Oneway: Congruity on Attitude & Purchase Intention at Low Distraction

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
purchase intention	Between Groups	7.759	2	3.879	1.246	.292
	Within Groups	314.395	101	3.113		
	Total	322.154	103			
Webpage Attitude	Between Groups	1.246	2	.623	.419	.659
	Within Groups	147.142	99	1.486		
	Total	148.388	101			
Brand Attitude	Between Groups	5.768	2	2.884	1.401	.251
	Within Groups	205.867	100	2.059		
	Total	211.635	102			

*Post Hoc Tests***Multiple Comparisons**
Tukey HSD

			Mean Differenc e (I-J)	Std. Error	Sig.	95% Confidence Interval	
Dependent Variable	(I) Mapping Level	(J) Mapping Level				Lower Bound	Upper Bound
purchase intention	successful	Moderately Misleading	.5460	.378 5	.32 3	-.3544	1.4465
		Extremely Misleading	.5826	.507 2	.48 7	-.6238	1.7891
	Moderately Misleading	successful	-.5460	.378 5	.32 3	- 1.4465	.3544
		Extremely Misleading	3.660E-02	.502 3	.99 7	- 1.1582	1.2314
	Extremely Misleading	successful	-.5826	.507 2	.48 7	- 1.7891	.6238
		Moderately Misleading	-3.6601E- 02	.502 3	.99 7	- 1.2314	1.1582
Webpage Attitude	successful	Moderately Misleading	.2421	.264 6	.63 2	-.3876	.8718
		Extremely Misleading	.1135	.351 7	.94 4	-.7233	.9504

	Moderately Misleading	successful	-.2421	.264 6	.63 2	-.8718	.3876
		Extremely Misleading	-.1285	.348 1	.92 8	-.9569	.6999
	Extremely Misleading	successful	-.1135	.351 7	.94 4	-.9504	.7233
		Moderately Misleading	.1285	.348 1	.92 8	-.6999	.9569
Brand Attitude	successful	Moderately Misleading	.4491	.309 5	.31 9	-.2873	1.1855
		Extremely Misleading	.5476	.412 4	.38 3	-.4336	1.5289
	Moderately Misleading	successful	-.4491	.309 5	.31 9	1.1855	.2873
		Extremely Misleading	9.848E-02	.409 7	.96 9	-.8763	1.0733
	Extremely Misleading	successful	-.5476	.412 4	.38 3	1.5289	.4336
		Moderately Misleading	-9.8485E-02	.409 7	.96 9	1.0733	.8763

Homogeneous Subsets

purchase intention
Tukey HSD

	N	Subset for alpha = .05
Mapping Level		1
Extremely Misleading	17	2.9412
Moderately Misleading	45	2.9778
successful	42	3.5238
Sig.		.427
Means for groups in homogeneous subsets are displayed.		

a Uses Harmonic Mean Sample Size = 28.611.

b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Webpage Attitude
Tukey HSD

	N	Subset for alpha = .05
Mapping Level		1
Moderately Misleading	44	3.3084
Extremely Misleading	17	3.4370
successful	41	3.5505
Sig.		.736

Means for groups in homogeneous subsets are displayed.

a Uses Harmonic Mean Sample Size = 28.318.

b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Brand Attitude
Tukey HSD

	N	Subset for alpha = .05
Mapping Level		1
Extremely Misleading	17	3.6667
Moderately Misleading	44	3.7652
successful	42	4.2143
Sig.		.324

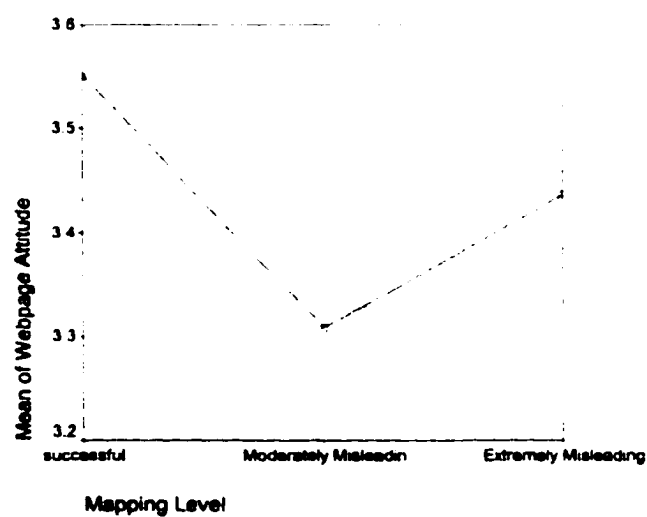
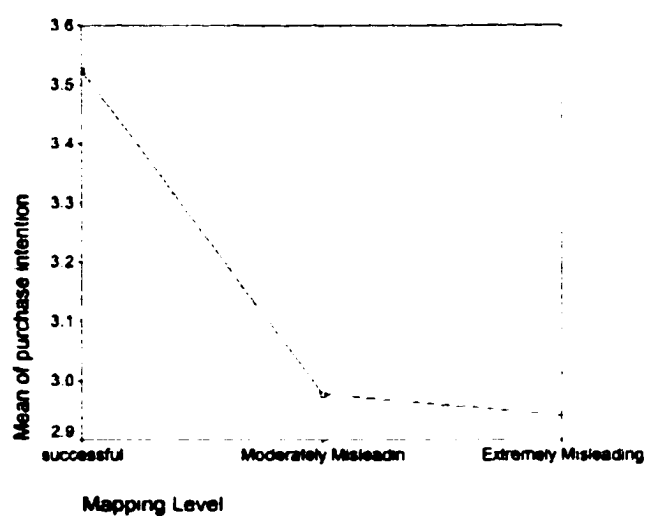
Means for groups in homogeneous subsets are displayed.

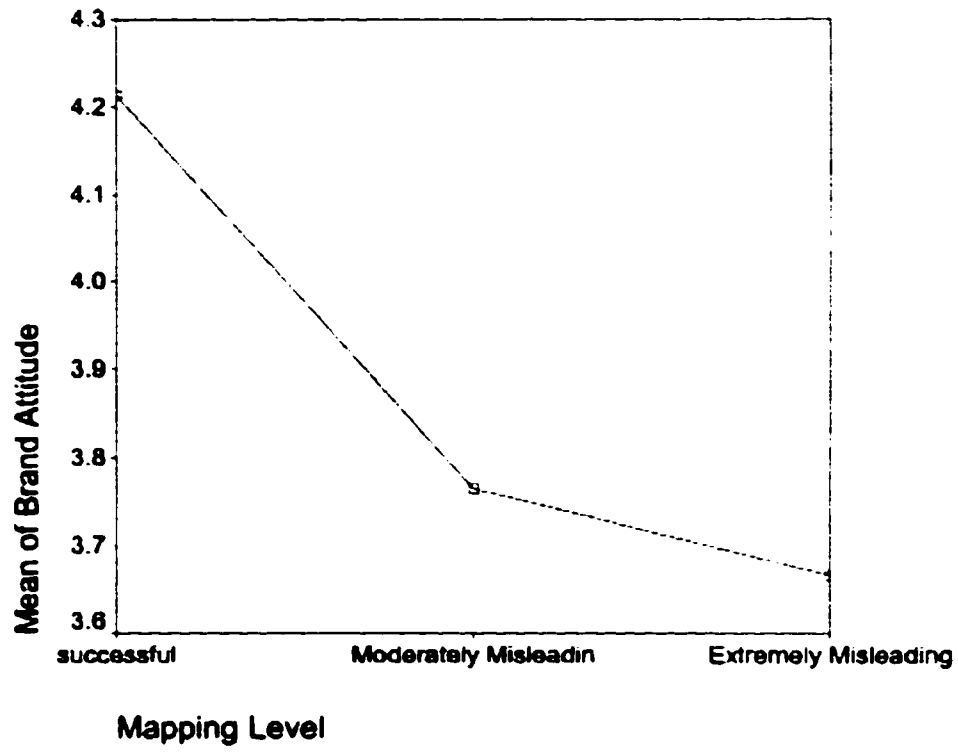
a Uses Harmonic Mean Sample Size = 28.474.

b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Means

Plots





Oneway: Congruity effect on Attitude & Intentions at High Distraction

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
purchase intention	Between Groups	14.204	2	7.102	2.838	.063
	Within Groups	262.759	105	2.502		
	Total	276.963	107			
Webpage Attitude	Between Groups	.441	2	.221	.173	.841
	Within Groups	129.992	102	1.274		
	Total	130.433	104			
Brand Attitude	Between Groups	14.320	2	7.160	3.822	.025
	Within Groups	196.676	105	1.873		
	Total	210.996	107			

*Post Hoc Tests***Multiple Comparisons
Tukey HSD**

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
Dependent Variable	(I) Mapping Level	(J) Mapping Level				Lower Bound	Upper Bound
purchase intention	successful	Moderately Misleading	.8958	.402 0	.07 1	5.9929E -02	1.8516
		Extremely Misleading	.6929	.364 1	.14 3	-.1728	1.5587
	Moderately Misleading	successful	-.8958	.402 0	.07 1	-1.8516	5.993E -02
		Extremely Misleading	-.2029	.371 2	.84 8	-1.0855	.6797
	Extremely Misleading	successful	-.6929	.364 1	.14 3	-1.5587	.1728
		Moderately Misleading	.2029	.371 2	.84 8	-.6797	1.0855
Webpage Attitude	successful	Moderately Misleading	9.688E-03	.294 0	.99 9	-.6895	.7089
		Extremely Misleading	.1352	.264 9	.86 6	-.4949	.7653

	Moderately Misleading	successful	-9.6880E-03	.2940	.999	-.7089	.6895
		Extremely Misleading	.1255	.2677	.886	-.5111	.7622
	Extremely Misleading	successful	-.1352	.2649	.866	-.7653	.4949
		Moderately Misleading	-.1255	.2677	.886	-.7622	.5111
Brand Attitude	successful	Moderately Misleading	.6090	.3478	.191	-.2179	1.4359
		Extremely Misleading	.8646(*)	.3150	.019	.1156	1.6136
	Moderately Misleading	successful	-.6090	.3478	.191	-1.4359	.2179
		Extremely Misleading	.2556	.3212	.707	-.5080	1.0191
	Extremely Misleading	successful	-.8646(*)	.3150	.019	-1.6136	-.1156
		Moderately Misleading	-.2556	.3212	.707	-1.0191	.5080
* The mean difference is significant at the .05 level.							

Homogeneous Subsets

purchase intention Tukey HSD

	N	Subset for alpha = .05
Mapping Level		1
Moderately Misleading	30	2.1667
Extremely Misleading	46	2.3696
successful	32	3.0625
Sig.		.052

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 34.753.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Webpage Attitude
Tukey HSD

	N	Subset for alpha = .05
Mapping Level		1
Extremely Misleading	46	2.7267
Moderately Misleading	29	2.8522
successful	30	2.8619
Sig.		.876

Means for groups in homogeneous subsets are displayed.
a Uses Harmonic Mean Sample Size = 33.499.
b The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

Brand Attitude
Tukey HSD

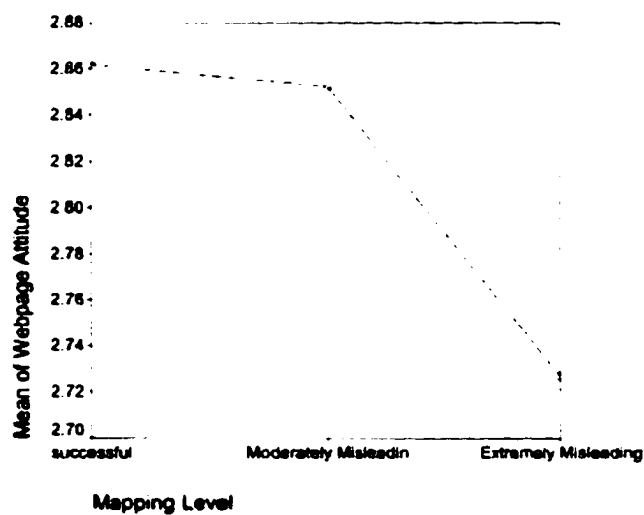
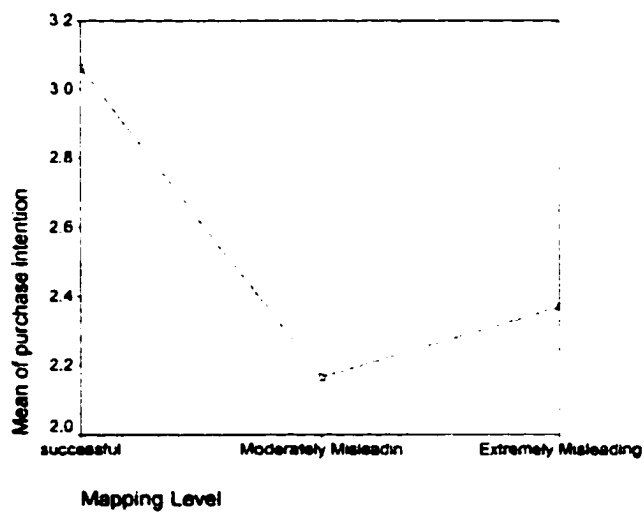
	N	Subset for alpha = .05	
Mapping Level		1	2
Extremely Misleading	46	2.8333	
Moderately Misleading	30	3.0889	3.0889
successful	32		3.6979
Sig.		.717	.157

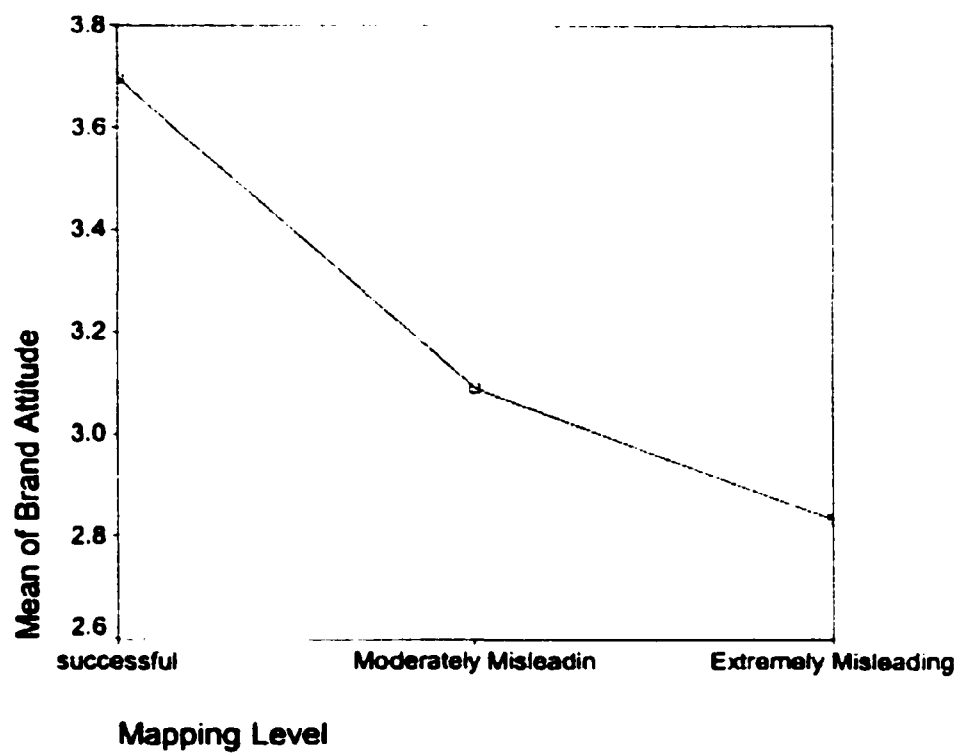
Means for groups in homogeneous subsets are displayed.
--

a Uses Harmonic Mean Sample Size = 34.753.

b The group sizes are unequal. The harmonic mean of the group sizes is used.
Type I error levels are not guaranteed.

Means Plots





APPENDIX I**ROLE OF SITE INVOLVEMENT*****Univariate Analysis of Variance: Site Involvement on Distraction***

Between-Subjects Factors		
		N
Webpage Involvement	1.00	28
	1.25	5
	1.50	8
	1.75	9
	2.00	24
	2.25	7
	2.50	11
	2.75	10
	3.00	15
	3.25	7
	3.50	14
	3.75	17
	4.00	15

4.25	11
4.50	10
4.75	2
5.00	4
5.25	7
5.50	1
5.75	1
6.00	1
6.75	2

Tests of Between-Subjects Effects
Dependent Variable: Distraction Measure

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	55.456(a)	21	2.641	1.435	.106
Intercept	1102.866	1	1102.866	599.409	.000
INVOLVEM	55.456	21	2.641	1.435	.106
Error	344.066	187	1.840		
Total	3657.680	209			
Corrected Total	399.522	20			

		8			
a R Squared = .139 (Adjusted R Squared = .042)					

Univariate Analysis of Variance: Site Involvement on Purchase Intention

Between-Subjects Factors		
		N
Webpage Involvement	1.00	28
	1.25	5
	1.50	8
	1.75	9
	2.00	24
	2.25	7
	2.50	11
	2.75	10
	3.00	15
	3.25	7
	3.50	14
	3.75	17
	4.00	15

	4.25	1
		1
	4.50	1
		0
	4.75	2
	5.00	4
	5.25	7
	5.50	1
	5.75	1
	6.00	1
	6.75	2

Tests of Between-Subjects Effects
Dependent Variable: purchase intention

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	122.485(a)	21	5.833	2.225	.003
Intercept	860.545	1	860.545	328.224	.000
INVOLVEM	122.485	21	5.833	2.225	.003
Error	490.280	187	2.622		
Total	2341.000	209			
Corrected Total	612.766	200			

		8			
a R Squared = .200 (Adjusted R Squared = .110)					

General Linear Model: Site Involvement on Attitude & Intention

Between-Subjects Factors		
		N
Webpage Involvement	1.00	28
	1.25	5
	1.50	8
	1.75	9
	2.00	24
	2.25	7
	2.50	11
	2.75	10
	3.00	15
	3.25	6
	3.50	13
	3.75	16
	4.00	15

	4.25	11
	4.50	10
	4.75	2
	5.00	4
	5.25	7
	5.50	1
	5.75	1
	6.00	1
	6.75	2

Multivariate Tests(c)

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.946	1054.385(a)	3.000	182.000	.000
	Wilks' Lambda	.054	1054.385(a)	3.000	182.000	.000
	Hotelling's Trace	17.380	1054.385(a)	3.000	182.000	.000
	Roy's Largest Root	17.380	1054.385(a)	3.000	182.000	.000
INVOLVEM	Pillai's Trace	.907	3.796	63.000	552.000	.000
	Wilks' Lambda	.192	6.371	63.000	544.109	.000

	Hotelling's Trace	3.702	10.617	63.000	542.000	.000
	Roy's Largest Root	3.566	31.249(b)	21.000	184.000	.000
a Exact statistic						
b The statistic is an upper bound on F that yields a lower bound on the significance level.						
c Design: Intercept+INVOLVEM						

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	purchase intention	128.466(a)	21	6.117	2.363	.001
	Webpage Attitude	233.010(b)	21	11.096	30.858	.000
	Brand Attitude	181.549(c)	21	8.645	5.974	.000
Intercept	purchase intention	870.426	1	870.426	336.190	.000
	Webpage Attitude	1148.099	1	1148.099	3192.992	.000
	Brand Attitude	1366.675	1	1366.675	944.473	.000
INVOLVEM	purchase intention	128.466	21	6.117	2.363	.001
	Webpage Attitude	233.010	21	11.096	30.858	.000
	Brand Attitude	181.549	21	8.645	5.974	.000
Error	purchase intention	476.393	184	2.589		
	Webpage Attitude	66.161	184	.360		

	Brand Attitude	266.252	18 4	1.447		
Total	purchase intention	2335.000	20 6			
	Webpage Attitude	2290.184	20 6			
	Brand Attitude	3048.889	20 6			
Corrected Total	purchase intention	604.859	20 5			
	Webpage Attitude	299.170	20 5			
	Brand Attitude	447.802	20 5			
a R Squared = .212 (Adjusted R Squared = .123)						
b R Squared = .779 (Adjusted R Squared = .754)						
c R Squared = .405 (Adjusted R Squared = .338)						

***Univariate Analysis of Variance: Site Involvement on Effect of Mapping Level on
Distraction***

Between-Subjects Factors			
		Value Label	N
Webpage Involvement	1.00		28
	1.25		5
	1.50		8
	1.75		9

2.0 0		2 4
2.2 5		7
2.5 0		1 1
2.7 5		1 0
3.0 0		1 5
3.2 5		7
3.5 0		1 4
3.7 5		1 7
4.0 0		1 5
4.2 5		1 1
4.5 0		1 0
4.7 5		2
5.0 0		4
5.2 5		7
5.5 0		1
5.7 5		1
6.0 0		1

	6.7 5		2
Mapping Level	1.0 0	successful	7 3
	2.0 0	Moderately Misleading	7 3
	3.0 0	Extremely Misleading	6 3

Tests of Between-Subjects Effects
Dependent Variable: Distraction Measure

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	154.832(a)	51	3.036	1.948	.001
Intercept	1390.247	1	1390.247	892.022	.000
INVOLVEM	62.975	21	2.999	1.924	.013
RX	26.306	2	13.153	8.439	.000
INVOLVEM * RX	61.976	28	2.213	1.420	.093
Error	244.690	157	1.559		
Total	3657.680	209			
Corrected Total	399.522	208			
a R Squared = .388 (Adjusted R Squared = .189)					

Univariate Analysis of Variance: SI on Mapping On Free Recall

Between-Subjects Factors

		Value Label	N
Webpage Involvement	1.0 0		2 8
	1.2 5		5
	1.5 0		8
	1.7 5		9
	2.0 0		2 4
	2.2 5		7
	2.5 0		1 1
	2.7 5		1 0
	3.0 0		1 5
	3.2 5		7
	3.5 0		1 4
	3.7 5		1 7
	4.0 0		1 5
	4.2 5		1 1
	4.5 0		1 0
	4.7 5		2

	5.0 0		4
	5.2 5		7
	5.5 0		1
	5.7 5		1
	6.0 0		1
	6.7 5		2
Mapping Level	1.0 0	successful	7 3
	2.0 0	Moderately Misleading	7 3
	3.0 0	Extremely Misleading	6 3

Tests of Between-Subjects Effects
Dependent Variable: free recall

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	115.546(a)	51	2.266	1.004	.477
Intercept	247.690	1	247.690	109.773	.000
INVOLVEM	24.131	21	1.149	.509	.964
RX	7.295	2	3.648	1.617	.202
INVOLVEM * RX	59.083	28	2.110	.935	.564
Error	354.253	15	2.256		

		7			
Total	1036.000	209			
Corrected Total	469.799	208			
a R Squared = .246 (Adjusted R Squared = .001)					

Univariate Analysis of Variance: SI on Mapping on Mean Aided Recall

Between-Subjects Factors			
		Value Label	N
Webpage Involvement	1.00		15
	1.25		3
	1.50		5
	1.75		5
	2.00		14
	2.25		2
	2.50		6
	2.75		1
	3.00		10
	3.25		4
	3.50		7

	3.75		12
	4.00		7
	4.25		8
	4.50		3
	4.75		1
	5.00		1
	5.25		5
	5.75		1
Mapping Level	1.00	successful	43
	2.00	Moderately Misleading	35
	3.00	Extremely Misleading	32

Tests of Between-Subjects Effects
Dependent Variable: Mean Aided Recall

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	12.358(a)	41	.301	1.440	.091
Intercept	13.076	1	13.076	62.471	.000
INVOLVEM	3.913	18	.217	1.039	.431
RX	1.472	2	.736	3.517	.03

					5
INVOLVEM * RX	4.772	21	.227	1.086	.384
Error	14.233	68	.209		
Total	45.000	110			
Corrected Total	26.591	109			
a R Squared = .465 (Adjusted R Squared = .142)					

Univariate Analysis of Variance: SI on Distraction on Mean Aided Recall

Between-Subjects Factors		
		N
Webpage Involvement	1.00	15
	1.25	3
	1.50	5
	1.75	5
	2.00	14
	2.25	2
	2.50	6
	2.75	1
	3.00	10

	3.25	4
	3.50	7
	3.75	12
	4.00	7
	4.25	8
	4.50	3
	4.75	1
	5.00	1
	5.25	5
	5.75	1
Distraction Measure	1.00	1
	1.20	1
	1.40	1
	1.60	2
	1.80	2
	2.00	5
	2.20	4

2.4 0	1
2.6 0	5
2.8 0	4
3.0 0	9
3.2 0	5
3.4 0	8
3.6 0	5
3.8 0	5
4.0 0	7
4.2 0	6
4.4 0	2
4.6 0	6
4.8 0	6
5.0 0	5
5.2 0	4
5.4 0	3
5.8 0	4

6.00	3
6.20	2
6.40	2
6.60	1
6.80	1

Tests of Between-Subjects Effects
Dependent Variable: Mean Aided Recall

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	21.758(a)	92	.236	.832	.721
Intercept	12.330	1	12.330	43.367	.000
INVOLVEM	3.395	18	.189	.663	.802
DISTRAC	5.077	28	.181	.638	.858
INVOLVEM * DISTRAC	13.504	46	.294	1.033	.493
Error	4.833	17	.284		
Total	45.000	110			
Corrected Total	26.591	109			
a R Squared = .818 (Adjusted R Squared = -.165)					

Univariate Analysis: SI on Distraction on Free Recall

Between-Subjects Factors		
		N
Webpage Involvement	1.00	28
	1.25	5
	1.50	8
	1.75	9
	2.00	24
	2.25	7
	2.50	11
	2.75	10
	3.00	15
	3.25	7
	3.50	14
	3.75	17
	4.00	15
	4.25	11

	4.5 0	1 0
	4.7 5	2
	5.0 0	4
	5.2 5	7
	5.5 0	1
	5.7 5	1
	6.0 0	1
	6.7 5	2
Distraction Measure	1.0 0	4
	1.2 0	3
	1.4 0	1
	1.6 0	4
	1.8 0	3
	2.0 0	7
	2.2 0	5
	2.4 0	3
	2.6 0	1 0

2.8 0	7
3.0 0	1 0
3.2 0	1 1
3.4 0	1 5
3.6 0	1 0
3.8 0	8
4.0 0	1 7
4.2 0	1 2
4.4 0	5
4.6 0	9
4.8 0	1 1
5.0 0	8
5.2 0	1 0
5.4 0	5
5.6 0	2
5.8 0	9
6.0 0	6

	6.20	3
	6.40	5
	6.60	3
	6.80	2
	7.00	1

Tests of Between-Subjects Effects
Dependent Variable: free recall

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	346.132(a)	162	2.137	.795	.849
Intercept	249.235	1	249.235	92.707	.000
INVOLVEM	46.652	21	2.222	.826	.676
DISTRAC	92.863	30	3.095	1.151	.327
INVOLVEM * DISTRAC	220.328	111	1.985	.738	.899
Error	123.667	46	2.688		
Total	1036.000	209			
Corrected Total	469.799	208			
a R Squared = .737 (Adjusted R Squared = -.190)					

General Linear Model: SI on Distraction & Mapping effect on Attitude & Intention

Between-Subjects Factors			
		Value Label	N
Webpage Involvement	1.00		28
	1.25		5
	1.50		8
	1.75		9
	2.00		24
	2.25		7
	2.50		11
	2.75		10
	3.00		15
	3.25		6
	3.50		13
	3.75		16
	4.00		15
	4.25		11

	4.5 0		1 0
	4.7 5		2
	5.0 0		4
	5.2 5		7
	5.5 0		1
	5.7 5		1
	6.0 0		1
	6.7 5		2
Mapping Level	1.0 0	successful	7 1
	2.0 0	Moderately Misleading	7 2
	3.0 0	Extremely Misleading	6 3
Distraction Measure	1.0 0		4
	1.2 0		3
	1.4 0		1
	1.6 0		4
	1.8 0		3
	2.0 0		7

	2.2 0		5
	2.4 0		3
	2.6 0		1 0
	2.8 0		7
	3.0 0		1 0
	3.2 0		1 1
	3.4 0		1 5
	3.6 0		1 0
	3.8 0		8
	4.0 0		1 7
	4.2 0		1 0
	4.4 0		5
	4.6 0		9
	4.8 0		1 1
	5.0 0		8
	5.2 0		1 0
	5.4 0		5

	5.60		2
	5.80		9
	6.00		5
	6.20		3
	6.40		5
	6.60		3
	6.80		2
	7.00		1

Multivariate Tests(c)

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Pillai's Trace	.995	1272.245(a)	3.000	18.000	.000
	Wilks' Lambda	.005	1272.245(a)	3.000	18.000	.000
	Hotelling's Trace	212.041	1272.245(a)	3.000	18.000	.000
	Roy's Largest Root	212.041	1272.245(a)	3.000	18.000	.000
INVOLVEM	Pillai's Trace	1.670	1.256	60.000	60.000	.190
	Wilks' Lambda	.023	2.291	60.000	54.537	.001

	Hotelling's Trace	17.070	4.742	60.000	50.000	.000
	Roy's Largest Root	15.847	15.847(b)	20.000	20.000	.000
RX	Pillai's Trace	.350	1.342	6.000	38.000	.263
	Wilks' Lambda	.678	1.285(a)	6.000	36.000	.289
	Hotelling's Trace	.433	1.227	6.000	34.000	.317
	Roy's Largest Root	.293	1.855(b)	3.000	19.000	.171
DISTRAC	Pillai's Trace	1.724	.901	90.000	60.000	.676
	Wilks' Lambda	.058	.969	90.000	54.756	.560
	Hotelling's Trace	5.511	1.020	90.000	50.000	.477
	Roy's Largest Root	3.355	2.237(b)	30.000	20.000	.032
INVOLVEM * RX	Pillai's Trace	.632	.668	24.000	60.000	.862
	Wilks' Lambda	.477	.639	24.000	52.807	.884
	Hotelling's Trace	.875	.608	24.000	50.000	.907
	Roy's Largest Root	.498	1.244(b)	8.000	20.000	.325
INVOLVEM * DISTRAC	Pillai's Trace	2.140	.722	207.000	60.000	.951

	Wilks' Lambda	.020	.713	207.000	54.927	.952
	Hotelling's Trace	8.614	.694	207.000	50.000	.959
	Roy's Largest Root	4.192	1.215(b)	69.000	20.000	.322
RX * DISTRAC	Pillai's Trace	.846	.715	33.000	60.000	.851
	Wilks' Lambda	.344	.711	33.000	53.735	.851
	Hotelling's Trace	1.394	.704	33.000	50.000	.856
	Roy's Largest Root	.921	1.675(b)	11.000	20.000	.152
INVOLVEM * RX * DISTRAC	Pillai's Trace	.000	.(a)	.000	.000	.
	Wilks' Lambda	1.000	.(a)	.000	19.000	.
	Hotelling's Trace	.000	.(a)	.000	2.000	.
	Roy's Largest Root	.000	.000(a)	3.000	17.000	1.000
a Exact statistic						
b The statistic is an upper bound on F that yields a lower bound on the significance level.						
c Design: Intercept+INVOLVEM+RX+DISTRAC+INVOLVEM * RX+INVOLVEM * DISTRAC+RX * DISTRAC+INVOLVEM * RX * DISTRAC						

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
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Corrected Model	purchase intention	546.859(a)	18 5	2.956	1.019	.51 3
	Webpage Attitude	290.507(b)	18 5	1.570	3.625	.00 1
	Brand Attitude	426.413(c)	18 5	2.305	2.155	.02 3
Intercept	purchase intention	1069.740	1	1069.740	368.876	.00 0
	Webpage Attitude	1367.135	1	1367.135	3156.16 7	.00 0
	Brand Attitude	1766.698	1	1766.698	1651.97 8	.00 0
INVOLVEM	purchase intention	63.644	20	3.182	1.097	.41 9
	Webpage Attitude	122.651	20	6.133	14.158	.00 0
	Brand Attitude	84.839	20	4.242	3.966	.00 2
RX	purchase intention	14.469	2	7.235	2.495	.10 8
	Webpage Attitude	1.026	2	.513	1.184	.32 6
	Brand Attitude	3.908	2	1.954	1.827	.18 7
DISTRAC	purchase intention	95.065	30	3.169	1.093	.42 6
	Webpage Attitude	12.857	30	.429	.989	.52 1
	Brand Attitude	52.795	30	1.760	1.646	.12 4
INVOLVEM * RX	purchase intention	20.019	8	2.502	.863	.56 2
	Webpage Attitude	.888	8	.111	.256	.97 3

	Brand Attitude	10.426	8	1.303	1.219	.338
INVOLVEM * DISTRAC	purchase intention	139.707	69	2.025	.698	.862
	Webpage Attitude	20.323	69	.295	.680	.879
	Brand Attitude	82.313	69	1.193	1.115	.408
RX * DISTRAC	purchase intention	32.224	11	2.929	1.010	.472
	Webpage Attitude	1.109	11	.101	.233	.992
	Brand Attitude	19.624	11	1.784	1.668	.154
INVOLVEM * RX * DISTRAC	purchase intention	.000	0	.	.	.
	Webpage Attitude	.000	0	.	.	.
	Brand Attitude	.000	0	.	.	.
Error	purchase intention	58.000	20	2.900		
	Webpage Attitude	8.663	20	.433		
	Brand Attitude	21.389	20	1.069		
Total	purchase intention	2335.000	206			
	Webpage Attitude	2290.184	206			
	Brand Attitude	3048.889	206			
Corrected Total	purchase intention	604.859	205			

	Webpage Attitude	299.170	20 5			
	Brand Attitude	447.802	20 5			
a R Squared = .904 (Adjusted R Squared = .017)						
b R Squared = .971 (Adjusted R Squared = .703)						
c R Squared = .952 (Adjusted R Squared = .510)						

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