Exploring Differences in Males’ and Females’ Processing Strategies

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Existing research suggests that, relative to males, females often are more concerned with the particulars of message claims when processing advertising messages. This research examines how males process messages, when gender differences in processing are likely to occur, and whether variance in either information availability (the extent of message encoding) or information accessibility (the richness of message encoding) is likely to mediate such differences. The findings suggest that whether gender differences in processing occur depends on the nature of the response task and the level of cue incongruity contained in the message. Differences in the accessibility of message cues and in the genders’ likelihood of using alternative processing strategies seem likely to account for these findings.

Recent research suggests that males and females often differ in how they process message claims (Meyers-Levy 1989). It appears that, relative to males, females often engage in more detailed elaboration of specific message content (Gilligan 1982; Krugman 1966). Accordingly, females sometimes are found to exhibit greater sensitivity to the particulars of relevant information when forming judgments than are males (Farina 1982; Lenney 1977; Meyers-Levy and Sternthal 1991). While this stream of research offers a useful characterization of females’ manner of processing, for males it only indicates how they do not process. The strategy that males are likely to use to process and respond to messages remains unknown. Also uncertain is when males are likely to engage in such message elaboration as do females.

The current research examines these issues and attempts to shed light on the locus of gender differences in message processing. One possibility is that gender differences emerge because males encode fewer ad claims than do females. This would imply that the genders differ in the availability of ad claims. A second possibility is that males elaborate ad claims less extensively than do females (even though they may encode as many ad claims), which produces gender differences in the accessibility of ad claims.

To explore gender differences in availability and accessibility, we presented an ad message and examined each gender’s recognition and recall of ad claims. In addition, we introduced varying levels of incongruity in the message which, together with the differing response tasks, were intended to help delimit when gender differences in processing would emerge.

Examining such gender issues is of interest for several reasons. First, gender differences appear to be of interest in their own right as ads typically are targeted to one or both of these consumer groups, and gender investigations have a long history in consumer research (e.g., Curry and Menasco 1979; Davis 1970; Ferber and Lee 1974; Schmitt, Leclerc, and Dube-Rioux 1988). Second, the genders’ recognition and recall of ad claims are of particular interest because these two memory measures are commonly used as indicators of ad effectiveness (Singh and Churchill 1986). Third, these two measures are valuable theoretically as they may help to distinguish whether differences in consumers’ (e.g., the genders’) processing have their locus in availability or accessibility constraints. Distinguishing between these two mechanisms has proven to be a difficult but important issue (see Bettman 1979).

**DETECTING AND PREDICTING GENDER DIFFERENCES**

We begin by examining recognition because previous research indicates that recognition accuracy can serve as a valid indicator of processing strategy, yielding inferences similar to those implied by other strategy indicators (e.g., reaction time; Reder 1987). Specifically, we will consider the processing strategies that might be used at recognition and which strategy males and fe-

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males are likely to use under various incongruity conditions. We then apply a similar analysis to recall. Because recall is thought to be more biased toward a particular type of processing, several useful insights into gender differences emerge.

**Recognition**

Two strategies are commonly employed in assessing recognition and, depending on which strategy is used, recognition accuracy varies systematically (Reder 1987; Reder and Anderson 1980). Thus, if gender differences occur in recognition, insight can be gained into the strategy males use in processing messages.

One recognition strategy, referred to as a detailed strategy, involves a thorough and effortful search of memory for items that match the supplied recognition probes. Retrieval of a matching item results in a response of “old,” whereas failure to identify a match produces a response of “new.” Assuming that the target items have been encoded to some degree, recognition performed via a detailed strategy generally is highly accurate for various types of old and new items, resulting in good discrimination between target and foils (bogus) items.

More frequently, however, recognition is evaluated via a less effortful strategy (Reder and Anderson 1980), which is referred to as a schema-based strategy. This strategy may be particularly appealing when the content of a message reflects a common, integrated theme or schema. Using this strategy, people “judge whether they have seen a fact simply by judging if it is related to (consistent with) a theme they have studied. In other words, people judge themes rather than facts” (Reder and Anderson 1980, p. 447). Thus, if a recognition probe is consistent with the message theme, it is judged to be old; if the probe is inconsistent with the theme, it is judged to be new.

The use of a schema-based strategy produces accurate recognition for only two types of items. Accuracy will be high for congruent message items (items that were present in the message and are congruent or consistent with the message-implied theme or schema) and for incongruent foils (items that were absent in the message and are inconsistent with the message-implied schema). However, for two other types of items, incongruent message items and congruent foils, a schema-based strategy is likely to produce inaccurate recognition judgments. This follows because, by definition, incongruent message items are inconsistent with the schema and thus give rise to an invalid “new” response, despite the fact that such items in fact were included in the message. And because congruent foils are congruent or consistent with the schema, they lead to an invalid “old” response, invalid because such items represent bogus content that was absent in the message. Hence, because recognition will be accurate only for those items that serendipitously are judged appropriately via a schema-based strategy, discrimination between new and old items will be poor.

This analysis suggests that recognition can help identify people’s manner of processing, provided that a recognition test includes both true message items and plausible, yet easily confused, thematically related foils. Moreover, by drawing on this analysis, predictions can be made about the nature of gender differences and when and why these differences occur. Research by Reder (1987) identifies several conditions that foster the use of each type of strategy. For example, Reder finds that people are more likely to use a detailed rather than a schema-based strategy when specific message information is strongly represented in memory because such information should be more easily retrievable or accessible. Because females often have been found to engage in more detailed elaboration of message cues than do males (Krugman 1966; Meyers-Levy and Sternthal 1991), it follows that they may represent message items more strongly in memory. This suggests that females may be more likely to use a detailed strategy at recognition, whereas males may use a schema-based strategy. Yet there is reason to suspect that these outcomes may be dependent on the nature of the message content.

Along these lines, research suggests that the presence of incongruent information in a message tends to stimulate detailed and elaborate processing of individual message items (Meyers-Levy and Tybout 1989; Sujan, Bettman, and Sujan 1986) because people attempt to reconcile or integrate the incongruent cues with other items in the message (Srull 1981). This activity generates strong and numerous linkages among the incongruent and congruent message items such that both types of items will be elaborately stored and strongly represented in memory. Consistent with the resulting inference that incongruity can enhance cue accessibility and thus facilitate the use of a detailed strategy, research has found that individuals exposed to messages containing high levels of incongruity engage in greater thought about individual product attributes and require longer response times to form product judgments (Meyers-Levy and Tybout 1989; Sujan 1985). Under conditions of high incongruity, individuals also have substantial recall of congruent, but most especially of incongruent, message items and generally demonstrate accurate recognition of and discrimination between all message items and foils (Srull 1981).

Nonetheless, incongruity appears to stimulate such elaborate processing only when it is relatively extreme (Hastie 1980). Incongruity cues that are only modestly
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ataypical may fail to promote elaborate, detailed processing because the minor aberration in cue content may be viewed as irrelevant rather than incongruent with the relevant schema. Such irrelevant cues tend to receive little or no elaborative processing (Alba and Hasher 1983), suggesting that they fail to enhance the accessibility of message items. Instead, messages containing low levels of incongruity may be weakly encoded in memory, which undermines the use of detailed retrieval.

This analysis suggests that, for recognition, whether differences occur in the genders’ processing strategies is likely to depend on the level of message cue incongruity and the purported influence that this incongruity has on the accessibility of message cues stored in memory. Specifically, it is hypothesized that males will employ a schema-based strategy to assess recognition when cue incongruity is low. This follows both because males generally are unlikely to favor detailed message analysis, and because low incongruity should result in relatively impoverished accessibility of message cues, which further discourages the use of a detailed strategy. However, when cue incongruity is more extreme, males are expected to employ a detailed strategy because higher incongruity should enhance the accessibility of message cues and thus facilitate detailed retrieval of individual message items.

In contrast, because females exhibit a greater proclivity to engage in elaborate and detailed message processing, they should be more likely than males to elaborately store message material and employ a detailed strategy at recognition, regardless of whether variations in the extremity of the incongruent cues enhance or inhibit such storage. Hence, females are expected to engage in detailed processing regardless of variations in cue incongruity.

Recall

Recall imposes quite different demands on memory than does recognition and thus might have a unique influence on people’s use of processing strategies. Recall also is of interest because, by comparing people’s performance on recall and recognition tasks, important insights might be obtained about the mechanism underlying gender differences.

Along these lines, research by Reder (1987) reveals that, in addition to how strongly message cues are stored in memory, the use of detailed or schema-based processing also is influenced by the nature of the demands imposed by the response task. Findings reveal that a detailed strategy is provoked by tasks that, in contrast to recognition, emphasize verbatim recall (Gauld and Stephenson 1967). Indeed, a recall task appears to impose more rigorous processing demands than does recognition and these more forcefully encourage a more detailed memory search and reporting of message content. This occurs because, unlike recognition, recall does not provide explicit memory probes that are present at recognition and readily enable individuals to circumvent doing a detailed memory search by instead simply judging the consistency of probes with a schema (schema-based strategy). Thus, in relation to recognition, recall more forcefully requires that all individuals—even those who under less demanding task conditions, such as recognition, pursue a less effortful schema-based strategy—perform a detailed search of memory (Reder, Wible, and Martin 1986).

Two important insights would be offered by supporting the prediction that, regardless of variations in message cue incongruity, both genders will use a detailed strategy in performing a recall task and exhibit an equivalent and fair degree of recall. First, if the predicted treatment effects on recognition were accompanied by a uniformly reasonable degree of recall, then performance decrements in the male, low-incongruity recognition treatment more likely would be due to these males’ failure to access the message cues during recognition than to an availability failure whereby they completely failed to encode the message cues. Indeed, as the process outlined previously suggests, regardless of the level of cue incongruity, males and females should encode the message cues to some degree, though in the case of low cue incongruity, males’ encoding should be somewhat degraded and this, in turn, should reduce accessibility. Thus, only when the more taxing task demands imposed by recall effectively call for a detailed processing strategy should both males and females uniformly retrieve a substantial amount of the encoded message material.

Second, support for this prediction would provide evidence that the very same individuals employed different strategies in recognition and recall, adding to mounting evidence that individuals can rapidly shift from one processing strategy to another as task demands change (Reder 1987). Indeed, Reder has found that individuals can be induced to shift processing strategies from question to question within a single task.

METHOD

Subjects

Forty-five male and 45 female students participated in this experiment for extra course credit. Sessions were conducted by either a male or a female experimenter.

Stimulus

Subjects received randomly distributed questionnaires that contained the experimental materials. The

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2This is not to suggest that schema-based processes will never play a role during recall. Rather it is suggested that, during recall, detailed processing is likely to play a more predominant role because memory cues and recognition probes that can facilitate the use of schema-based processing are not present during recall. Consistent with this view, Alba and Hasher (1983) note that schema-based intrusions are rare during recall.
cover sheet indicated that the purpose of the study was to examine subjects’ opinions and reactions to a new television program.

Subjects read an ad for a new half-hour, in-depth news program that was to be aired after the evening news. The description of this program closely resembled that of ABC’s “Nightline,” a well-known example of an in-depth news program. Information presented to subjects concerning the program’s format and host was based on “Nightline,” making the program’s description generally congruent with the in-depth-news-show schema. In total, nine background facts that were congruent with “Nightline” and the in-depth-news-show schema were presented (e.g., the show was an in-depth news program, aired for a half hour, was hosted by a well-known broadcaster and journalist, would present experts on featured issues, and so on).

The message also identified eight issues that were said to be scheduled for discussion on the show. Six of these issues were common to all message descriptions and were topics that had been presented on “Nightline.” These included medical malpractice, the United States’ presence in El Salvador, America’s problem of drug infiltration, drug abuse, combating terrorism, and worldwide hunger. Pretests established that males and females viewed these six issues similarly (p > .35), agreeing that they were highly congruent with content aired on “Nightline.”

Two additional issues that varied in their incongruity with the programming of “Nightline” also were included in the message. These issues were placed about halfway in the message and were embedded among the congruent message items. These pairs of issues, which represented the critical incongruent message cues, were national weather forecasts and movie reviews in the low-incongruity condition, healthful nutrition and organizing family finances in the moderate-incongruity condition, and magic performances and poetry readings in the high-incongruity condition. The critical incongruent items were selected on the basis of a pretest in which subjects rated the incongruity of these items in relation to “Nightline” on 11-point scales. The low-, moderate-, and high-incongruity issues were perceived as increasingly incongruent (mean ratings of 4.61, 6.22, and 8.15, respectively, with higher numbers indicating greater incongruity). No differences emerged in the genders’ ratings of incongruity (F < 1). Further, a separate examination (n = 53) found that the genders rated these incongruent items equivalently in terms of familiarity, interest, liking, and perceived importance.

Dependent Measures

After reading the program description, subjects answered a series of general questions concerning their television viewing habits. This was followed by a recognition task. Subjects were alerted that some of the items in the 16-item recognition task might be foils (i.e., bogus items). The items varied both in terms of whether they had actually appeared in the message and whether they were congruent or incongruent with the in-depth news show “Nightline.” The test items consisted of five congruent message items (e.g., aired after the evening news), four congruent foils (e.g., a segment scheduled on poverty among the elderly), the two critical incongruent message cues (e.g., low-incongruity cues: a segment scheduled on movie reviews and national weather forecasts; moderate-incongruity cues: a segment scheduled on healthful nutrition and organizing family finances; high-incongruity cues: a segment scheduled on magic performances and poetry readings), and five incongruent foils (e.g., Dow Jones industrial averages reported regularly).

The congruity of these recognition items with “Nightline” was determined in a pretest conducted among 60 individuals. When rated on 11-point scales, with higher numbers indicating greater incongruity, the recognition items referred to as congruent received an average rating of 2.53, while those referred to as incongruent received an average rating of 6.68. No significant gender differences were observed in these ratings (F < 1).

Next, in a free recall task, subjects were asked to recall the message as completely as possible. Finally, subjects’ general familiarity with in-depth news shows was probed to explore whether gender and familiarity were confounded. This entailed measuring how frequently subjects watched “Nightline.”

RESULTS

To assess treatment effects on the dependent measures, analyses of variance were performed on the 2 (gender) × 3 (cue incongruity: low-moderate, and high) factorial design. For the cue-incongruity factor, the two planned contrasts that were most likely to reveal differences were examined: a comparison of the low- versus moderate-incongruity condition, and a comparison of the low- versus high-incongruity condition.

Confounding Check

First, an ANOVA was performed on the frequency with which subjects watched “Nightline.” This analysis revealed that the program was watched often (X = 1.28 times per week, SD = 1.08), and that both genders viewed the program with equal frequency (F < 1). Hence, gender differences in expertise or familiarity with in-depth news shows, such as the one portrayed in the message, are unlikely to account for any treatment effects.

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2It is noteworthy that the findings of the current study were replicated when, in a separate study, message recall was assessed prior to recognition. This observation suggests that reactivity between memory measures is unlikely to account for the findings.
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TABLE 1
RECOGNITION HITS, FALSE ALARMS, AND A’ VALUES AND RECALL CATEGORIZED BY TREATMENTS

<table>
<thead>
<tr>
<th></th>
<th>Hits</th>
<th>False alarms</th>
<th>A’</th>
<th>Recall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Congruent message</td>
<td>Incongruent message</td>
<td>Congruent foils</td>
<td>Incongruent foils</td>
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<tr>
<td></td>
<td>items</td>
<td>items</td>
<td>foils</td>
<td>foils</td>
</tr>
<tr>
<td>Males:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low incongruity</td>
<td>.75</td>
<td>.57</td>
<td>.42</td>
<td>.27</td>
</tr>
<tr>
<td>Moderate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incongruity</td>
<td>.80</td>
<td>.80</td>
<td>.22</td>
<td>.15</td>
</tr>
<tr>
<td>High incongruity</td>
<td>.89</td>
<td>.90</td>
<td>.23</td>
<td>.21</td>
</tr>
<tr>
<td>Mean</td>
<td>.81</td>
<td>.76</td>
<td>.29</td>
<td>.21</td>
</tr>
<tr>
<td>Females:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low incongruity</td>
<td>.83</td>
<td>.87</td>
<td>.22</td>
<td>.18</td>
</tr>
<tr>
<td>Moderate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incongruity</td>
<td>.84</td>
<td>.93</td>
<td>.25</td>
<td>.19</td>
</tr>
<tr>
<td>High incongruity</td>
<td>.84</td>
<td>.83</td>
<td>.20</td>
<td>.17</td>
</tr>
<tr>
<td>Mean</td>
<td>.84</td>
<td>.88</td>
<td>.22</td>
<td>.18</td>
</tr>
</tbody>
</table>

NOTE.—Cell sizes are equivalent at 15; the percentages of congruent and incongruent items recalled are indicated in parentheses.

Recognition

Accurate and inaccurate responses to recognition items were scored 1 and 0, respectively, and mean recognition scores were computed separately for the congruent message items, the incongruent message items, the congruent foils, and the incongruent foils. The preferred approach for analyzing recognition data is a signal detection analysis because this procedure adjusts the data for response biases or guessing (Singh and Churchill 1986). However, to help the reader intuitively grasp the implications of the recognition data, we will first examine the mean hit and false alarm rates.

It will be recalled that the use of a detailed strategy at recognition entails thoroughly searching memory and assessing whether specific message items that match the recognition test items can be uncovered. This strategy should produce relatively accurate recognition for each type of item under consideration. Accordingly, the hit rates (i.e., rates of correct acceptance of old items) for congruent and incongruent message items should be high, and the false alarm rates (i.e., rates of false acceptance of new items) for congruent and incongruent foils should be low.

In contrast, performance of the recognition task via a schema-based strategy entails simply assessing whether the recognition test items are consistent with the in-depth-news-program schema, irrespective of the items’ true message or foil status. Thus, if one employs this strategy, recognition will be highly accurate for only two types of items. The hit rate for congruent message items should be high, and the false alarm rate for incongruent foils should be low. However, the hit rate for incongruent message items should be low, and the false alarm rate for congruent foils should be high.

Table 1 presents the mean hit and false alarm rates for each type of recognition test item by treatment. Because these data are reported in terms of percentages, the data points can be compared across treatments.

Consistent with predictions, both males and females appeared to employ a detailed strategy in determining recognition when cue incongruity was moderate or high, as suggested by their relatively high hit rates and low false alarm rates for the congruent and incongruent test items alike. However, when cue incongruity was low, it appears that females used a detailed strategy, while males used a schema-based strategy, in assessing recognition. Males’ use of a schema-based strategy is implicated by the observation that they displayed quite accurate recognition of congruent message items (high hit rate) and incongruent foils (low false alarm rate), as a schema-consistent judgment yields appropriate responses for these items serendipitously. Yet males exhibited fairly inaccurate recognition of incongruent message items (low hit rate) and congruent foils (high false alarm rate) because, for these items, a schema-consistent judgment yields inappropriate responses. Analyses performed on the hit and false alarm data generally supported this interpretation.

Signal detection analysis of the recognition data offers formal support for these inferences; it assesses the extent to which subjects discriminate between new and old items in recognition. Subjects who use a schema-based strategy should exhibit relatively poor discrimination between message and foil items because judging how consistent an item is with the in-depth-news-show schema fails to distinguish between items that are bogus but consistent with the schema and those that truly appeared in the message. In contrast, subjects who use a detailed strategy should show good discrimination between new and old items because the detailed process of matching recognition test items with encoded message items tends to be highly discriminating.
Separate signal detection indices, referred to as $A'$ (Grier 1971), were computed for congruent and incongruent items. Table 1 presents these indices categorized by treatment. A $.50$ value of $A'$ indicates perfect indiscrimination between message and foil items, while a value of 1 represents perfect discrimination.\(^4\)

A signal detection analysis ($A'$) on congruent recognition test items revealed that females more effectively discriminated between congruent message and foil items than did males ($F(1,84) = 4.17, p < .05$), and that discrimination generally was poorer in the low- than in the moderate- ($F(1,84) = 4.72, p < .05$) or high-cue-incongruity conditions ($F(1,84) = 11.68, p < .01$). These main effects were qualified, however, by significant interactions between gender and the low- versus moderate-cue-incongruity contrast ($F(1,84) = 8.56, p < .01$) and between gender and the low- versus high-cue-incongruity contrast ($F(1,84) = 5.65, p < .05$). Males' discrimination was poorer than was females' when cue incongruity was low ($F(1,84) = 13.54, p < .01$), but the genders' discrimination was equivalent when cue incongruity was moderate or high ($F < 1$). Further, males' discrimination between congruent message and foil items was poorer when cue incongruity was low rather than moderate ($F(1,84) = 12.99, p < .01$) or high ($F(1,84) = 16.80, p < .001$), but females' discrimination was high across all cue incongruity conditions ($F < 1$).

Signal detection analysis performed on incongruent recognition test items revealed similar outcomes. Females more effectively discriminated between incongruent message and foil items than did males ($F(1,84) = 4.23, p < .05$), and discrimination generally was poorer in the low- than in the moderate- ($F(1,84) = 6.51, p < .05$) or high-cue-incongruity conditions ($F(1,84) = 4.42, p < .05$). However, significant interactions between gender and the low- versus moderate-cue-incongruity contrast ($F(1,84) = 4.37, p < .05$) and between gender and the low- versus high-cue-incongruity contrast ($F(1,84) = 9.16, p < .05$) qualified these main effects. Males' discrimination of incongruent items was poorer than was females' when cue incongruity was low ($F(1,84) = 12.95, p < .01$), but the genders' discrimination was equivalent when cue incongruity was moderate or high ($F < 1$). Further, males' discrimination between incongruent message and foil items was poorer when cue incongruity was low rather than moderate ($F(1,84) = 10.77, p < .01$) or high ($F(1,84) = 13.15, p < .001$), but females' discrimination was high across all cue incongruity conditions ($F < 1$).

\(^4\)To derive Grier's $A'$ index, the hit rate must be greater than zero, the false alarm rate must be less than 1, and the false alarm rate must not exceed the hit rate. Violations of these requirements produce an undefined $A'$ index. To address this problem, $A'$ was set at $.50$ (indicating a lack of discrimination) for subjects whose performance violated these criteria.

Recall

The free recall data were scored by a judge who was blind to the treatments. Responses were coded for recall of congruent and incongruent message items and for false intrusions or recall of items that were not contained in the message. Treatment means for these measures are reported in Table 1. Analyses performed on each of these measures revealed no significant effects ($p > .32$). Regardless of the treatment condition, recall of congruent and incongruent message items was quite high, and the incidence of false intrusions was low.

DISCUSSION

Three key findings emerge from this research. First, the data support previously established findings that females' processing often entails substantial, detailed elaboration of message content, sometimes resulting in females' heightened sensitivity to the particulars of message claims. Yet more importantly, the findings offer insight into how males process messages. It appears that, when gender differences emerge, it is because males' processing is more likely to be driven by overall message themes or schemas. That is, as observed at recognition under low cue incongruity, males appear to draw on associations that are tied to a relevant schema and produce responses that are consistent with the implications derived from this schema.

Second, the findings suggest that these gender differences in processing are likely to occur only within the narrow window that emerges when message or task factors do not strongly encourage a particular type of processing. Although females may be more likely to elaborate on and consider the particulars of message material than are males, this difference will be eliminated when message characteristics (e.g., extreme cue incongruity) and/or response tasks (e.g., recall) motivate both genders to engage in detail-sensitive processing. Thus, females used a detailed processing strategy and males used a schema-based strategy when the message contained low-incongruity cues and a recognition task was highly conducive to the use of either processing strategy. But both genders uniformly employed detailed processing when extreme cue incongruity presumably fostered heightened access to specific message claims and/or a recall task impelled the detailed retrieval of such claims.

It also is interesting to note that the data are consistent with Reder's (1987) observation that both task and nontask factors can induce a rapid change in people's processing strategies. This change was manifested in the low-cue-incongruity condition by males' apparent shift in strategies when responding to consecutively administered recognition and recall tasks.

A final key finding is that it may be possible to distinguish limitations in message availability versus accessibility by comparing people's performance on recall
and recognition measures—provided that the recognition test includes thematically or schema-consistent foils as well as message items. Because in the low-cue-incongruity condition the genders produced high and equal recall, it can be inferred that they both encoded the message items to some degree, thus making message items available for retrieval when the recall task strongly encouraged such detailed retrieval. At the same time, when recognition failed to provide such encouragement, and low cue incongruity presumably fostered limited message item elaboration and accessibility, males exhibited impaired recognition.

These observations imply that gender differences in processing strategies are more likely to have their locus in cue accessibility than in cue availability. Nonetheless, because ceiling effects were evident in recall of the incongruent cues, and because recall may not be a very sensitive indicator of the degree of message elaboration, one cannot draw a firm conclusion about whether the genders truly differed in how elaborately they encoded and thus had access to the message material. Future research that examines the genders’ response latencies as they perform memory tasks might be useful in further exploring this issue.

It may strike some readers as paradoxical that, under certain conditions (i.e., males in the low-cue-incongruity condition), subjects apparently were able to recall items that they did not recognize; normally it is assumed that individuals will use the probes provided at recognition to help them search memory and produce accurate memory for difficult-to-retrieve items. Nonetheless, recall without recognition has been observed elsewhere (e.g., Tulving and Thomson 1973) and, similarly, has been attributed to accessibility rather than to availability barriers. Thus, what the findings suggest is that, contrary to the common view, recognition probes need not enhance performance because they can make it easier or more attractive to perform the memory task in a more error-prone, schema-based fashion.

Overall, the present research demonstrates that the genders are likely to bring different strategies to bear in processing ad information only when the demands of the response task or the content of messages do not strongly support the use of a particular strategy. Thus, for example, if subjects in the present study had been asked to perform a task that imposed extremely modest demands that specific ad information be considered at all (e.g., if subjects had been asked simply whether the program described was similar to another in-depth news show), and low cue incongruity resulted in limited access to message information, one might anticipate that both males’ and females’ responses would be schema-driven (i.e., judged on the basis of consistency between the schemas associated with the shows). This follows because both the task demands and the message content would strongly encourage the use of a schema-based strategy. On the other hand, gender differences might emerge if, given this same task, access to ad material was heightened as a result of extreme cue incongruity. In this case, males’ responses might be schema-based while females’ responses might be based on detailed retrieval because here, despite the modest task demands, the enhanced accessibility of the message material might be sufficient to nudge females into manifesting their greater tendency toward using detailed processing. Of course it remains the undertaking of future research to test this and other predictions regarding the demands imposed by various tasks.

In sum, the findings suggest several implications for consumer research. First, they indicate that, while ad information may be similarly encoded and thus available to the genders, under certain conditions males may be less likely to access or use the information. Different outcomes for the genders can be circumvented, however, if ads encourage detailed elaboration of ad claims and/or if response tasks strongly encourage the detailed retrieval of the relevant information. Second, because different response tasks (e.g., recall, recognition) invite different types of processing, the findings underscore the notion that the informativeness of a particular measure of ad effectiveness will depend on whether that measure truly captures the demands that consumers confront in the relevant purchase or consumption context. For example, it would seem that recall would be a valuable indicator of ad effectiveness only if, in the ultimate decision context, consumers are likely to retrieve specific ad claims when making a purchase decision, as they appear to do during recall. Finally, the data indicate that comparisons of consumers’ recall and recognition can be useful theoretically because they may offer insight into when limitations in availability or accessibility of ad claims are likely to be responsible for differences in people’s responses.

[Received February 1987. Revised June 1990.]

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