Country of Origin as a Heuristic Cue: 
The Effects of Message Ambiguity 
and Product Involvement

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This research applies the heuristic–systematic model to understand how country-of-origin (CO) cues can affect the way consumers process advertising messages and evaluate advertised products under different conditions. Findings of Experiment 1 show that, when product information is ambiguous, consumers are more likely to engage in heuristic processing, relying on CO cues to infer product quality and form their product evaluations. However, when product information is unambiguous, consumers engage in systematic processing and evaluate the product based on their assessments of product attributes. Findings of Experiment 2 further suggest that product involvement affects the extent to which consumers engage in heuristic processing when message ambiguity is at different levels. Specifically, mediational analyses indicate that, when product information featured in an ad is ambiguous, a low-involving product engages consumers in heuristic processing. Furthermore, when product information is unambiguous, a low-involving product engages consumers in systematic processing, whereas a high-involving product involves participants in an additivity processing style in which CO cue-based heuristic processing and attribute-based systematic processing co-occur.

Consumer researchers have long been interested in the effects of products’ countries of origin (CO) on product evaluations (e.g., Bilkey & Nes, 1982). Past findings have shown that people have specific ideas about products made in various countries (e.g., Hong & Wyer, 1989, 1990). Drawing upon the heuristic–systematic model, this research argues that these existing knowledge associations between a product’s quality and its CO can function as heuristic cues and bias the

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way individuals evaluate a product when they lack motivation to engage in systematic processing. The heuristic–systematic model posits that, in situations in which individuals are not motivated to elaborate on messages systematically, they rely on heuristic cues to develop their attitudes, whereas, under conditions in which individuals are motivated to develop accurate judgments, systematic processing will dominate (Chaiken, 1980, 1987; Chaiken & Eagly, 1983).

Within this model this research argues that consumers will not necessarily rely on CO cues to process ad messages and develop brand evaluations. There are, however, situations in which CO-based heuristic processing is more likely to occur. The research will specifically examine the two situations that are likely to encourage CO cue-based heuristic processing: first, the situation in which product information featured in an ad is ambiguous and, second, the situation in which product involvement is low.

The effects that knowledge of CO exerts on product evaluations are generally referred to as “CO effects.” Past reviews on CO effects note that these effects are more likely to be documented in single-cue studies, not when multiple cues are available (e.g., Blikby & Nes, 1982). Some of the inconsistency can be explained in terms of processing differences. It appears that CO-based processing is more likely to occur when other important product-attribute information is not available and a product’s CO thus becomes a salient cue. Within the heuristic–systematic model, this research argues that, on those occasions in which product information is ambiguous, CO cues lead consumers to make inferences about the quality of the product, resulting in an overall evaluation in a biased manner of the advertised product. In other contexts in which unambiguous product information, as well as a product’s CO, is specifically provided, systematic processing is encouraged, reducing the influence of the biased processing induced by CO cues. The product-attribute formation process mediated by CO cue-based inferences or product-attribute assessments under these two different conditions will also be explored.

Considerable evidence has indicated that individuals’ product involvement affects their motivation to process advertising messages (e.g., Laczeniak, Kempf, & Muehling, 1999). Thus it is reasonable to predict that individuals’ involvement with an advertised product category will alter the degree to which they engage in systematic processing and that the effects will be moderated by the message’s configuration. That is, for low-involving products, individuals will rely on CO cues when product information featured in an ad is ambiguous, but not when product information is not ambiguous. Contrarily, for high-involving products, drawing upon the additivity-effect concept proposed for the heuristic–systematic model, this research suggests that when CO cues, as well as unambiguous product information, are present, both types of information are likely to be important in helping
individuals reach accurate product judgments and reduce potential risks. Thus individuals’ processing of ad messages will not mainly rely on their assessments of product attributes. CO cues will also help them infer product quality, which will be integrated with their assessment of product attributes, and together determine how they evaluate the product. That is, the additivity effect, which requires higher cognitive capacity, will occur in situations in which a high-involving product is considered and product-attribute information is unambiguous.

There are four primary objectives. First, this article attempts to explore CO effects within solid theoretical grounds by arguing that CO associations serve as readily accessible judgment cues that will bias consumers’ responses to the ad and the brand under certain conditions in which individuals are not motivated to elaborate on product information. Second, this article advances the exploration to include an important message factor that concerns ad campaigns when they develop advertising messages, that is, message ambiguity. Third, this article further extends the exploration by including individuals’ product involvement, one variable that is of great interest to advertisers. Finally, this research aims to provide more evidence for the additivity hypotheses proposed by the heuristic–systematic model.

THE HEURISTIC–SYSTEMATIC MODEL

The heuristic–systematic model has postulated that persuasion can occur through heuristic processing or systematic processing (Chaiken, 1980, 1987; Chaiken & Eagly, 1983). When a heuristic mode of processing is adopted, message perceivers exert relatively less cognitive effort and rely on readily accessible decision rules, or cognitive heuristics, to formulate their judgments in an efficient way. Heuristic cues usually refer to learned associations between features of the persuasive messages and the perceived validity of the position advocated by the messages (Maheswaran, Mackie, & Chaiken, 1992). Past research has shown that, when the heuristic mode of processing is engaged, evaluations of the advocated issues or attitude objects are affected by decision rules such as “consensus implies correctness” (e.g., Aaker & Maheswaran, 1997; Hazlewood & Chaiken, 1990), “people agree with people whom they like” (e.g., Chaiken, 1980; Chaiken & Eagly, 1983; Maheswaran & Chaiken, 1991), and “credible sources imply correctness” (e.g., Chaiken & Maheswaran, 1994). In consumer research it has also been shown that brand names serve as heuristic cues when individuals’ motivation to process information is low, with a favorable brand name suggesting better product quality than an unfavorable brand name (Maheswaran et al., 1992).
In contrast, when a systematic mode of processing is adopted, message perceivers exert a considerable amount of cognitive effort and are able to access and scrutinize a large amount of information. In this mode message perceivers judge the validity of persuasive messages by comprehending and evaluating messages in an analytical manner.

The heuristic–systematic model assumes that people are cognitive misers (Maheswaran & Chaiken, 1991). People shun elaborative processing unless they are motivated and have the cognitive ability to engage in it. Following this general logic, the heuristic–systematic model introduces the sufficiency principle by suggesting that individuals try to reach the desired level of the sufficiency threshold by balancing the amount of their information processing efforts with the confidence level of their judgments (Chaiken, Liberman, & Eagly, 1989; Maheswaran & Chaiken, 1991). What is implied by the sufficiency principle is that message perceivers engage in systematic mode processing when the less analytical heuristic mode of processing does not provide judgment confidence. In other words, individuals’ desire to maximize their judgmental confidence can alter their processing strategies.

In line with this rationale, it has been suggested that situational factors can raise individuals’ sufficiency thresholds and motivate them to process information in the systematic mode (Chaiken et al., 1989). Indeed, several studies have indicated that situational factors such as message involvement (e.g., Axsom, Yates, & Chaiken, 1987), personal relevance (e.g., Hazlewood & Chaiken, 1990), task importance (e.g., Chaiken & Maheswaran, 1994; Maheswaran & Chaiken, 1991; Maheswaran et al., 1992), perceived consequences (e.g., Chaiken, 1980), and expectancy disconfirmation (e.g., Maheswaran & Chaiken, 1991) can increase individuals’ systematic information processing.

Rather than suggesting that individuals engage in either heuristic or systematic processing, the heuristic–systematic model proposes that heuristic and systematic processing can co-occur and generate both interactive and additive effects on judgments (Chaiken et al., 1989; Eagly & Chaiken, 1993). One of the interactive effects is attenuation, in which systematic processing overrides the judgmental influence of heuristic processing (Chaiken et al., 1989). Maheswaran and Chaiken (1991) showed that, when the information provided by the heuristic cues and the message content is incongruent and the task importance is high, both modes of processing occur. Yet the influence of systematic processing tends to dominate that of heuristic processing and attenuate the influence of heuristic cues.

However, systematic processing need not minimize the judgment influence generated by heuristic cues. Additive effects suggest that both systematic and heuristic processing exert independent influences on judgments (Chaiken et al., 1989).
Additivity effects have been shown to occur under conditions in which individuals are motivated to process product messages, and yet product-attribute information is congruent with consensus cues (e.g., Maheswaran & Chaiken, 1991). They have also been shown to occur under conditions in which individuals are motivated to elaborate on product information and the brand name valence is congruent with the attribute importance (e.g., Maheswaran et al., 1992). In these situations both product information and heuristic cues provide important information for individuals who are motivated to develop accurate product attitudes and, therefore, are involved in both heuristic and systematic processing simultaneously.

CO AS A HEURISTIC CUE

CO effect refers to how consumers perceive products that are made in a particular country (Roth & Romeo, 1992). Knowledge about a product's CO has been shown to have an impact on interpretations of product attributes (Hong & Wyer, 1990), on evaluations of specific product attributes (e.g., Johansson, Douglas, & Nonaka, 1985), on beliefs about products (e.g., Erickson, Johansson, & Chao, 1984), and on product evaluations (for a review see Bilkey & Nes, 1982).

Attention has been given in past research to why CO impacts product evaluations. Some researchers have discussed CO effects in terms of stereotypes (e.g., Janda & Rao, 1997; Maheswaran, 1994). According to this line of reasoning, in the process of socialization through either direct experiences or media exposure, consumers develop stereotypical beliefs about products, as well as people, originating from different countries. These learned beliefs or knowledge guide consumers to respond to products or interact with people from different countries in certain ways.

Within the heuristic–systematic model framework, this research argues that CO beliefs learned through past experiences can serve as heuristic decision rules when individuals are not motivated to process product information regarding a brand, but not when individuals are motivated to process product information. This is consistent with past research, suggesting that CO effects on product evaluations are not always robust. Many factors have been found to moderate its effects. For example, CO impact has been shown to vary by product category (e.g., Roth & Romeo, 1992; Hooley, Shipley, & Krieger, 1988; Erglu & Machleit, 1989) and by consumers' familiarity with a product (e.g., Johansson, Douglas, & Nonaka, 1985). This suggests that the degree to which a consumer relies on judgment inputs of a product's originating country may be determined by product variations and individual differences. In other words, under certain conditions, individuals' motiva-
tion to process messages may vary and, therefore, alter the extent to which CO af-
facts their brand evaluations.

MESSAGE DIFFERENCE AS A MODERATOR OF PROCESSING MODES

Given limited time or space, advertising can sometimes be very ambiguous. The moderating effects of message ambiguity on processing differences have been examined in heuristic and systematic literature. Chaiken and Maheswaran (1994) postulated that biased processing on the basis of heuristic cues is more likely to occur when messages are ambiguous. They observed that source credibility, an assumed heuristic cue, exerts a strong persuasive impact on judgments when messages are ambiguous, with high-credibility sources generating more source-related thinking and more favorable brand attitudes than low-credibility sources. As implied by Chaiken and Maheswaran’s (1994) research, heuristic cues become more salient or vivid in certain message contexts and, therefore, are more likely to exert significant effects. For example, when messages are ambigu-
ous, as opposed to unambiguous, heuristic cues may become relatively more sa-
lient and vivid, encouraging individuals to engage in heuristic processing. There-
fore, this research suggests that when messages are ambiguous, heuristic cues such as “products made in certain countries are of good quality” should become much more salient.

Because of the processing differences between situations in which messages are ambiguous and those in which they are unambiguous, this research hypothe-
sizes that a positive CO cue will generate more positive responses than a negative CO cue in the former condition but not in the latter condition. Specifically, when product information in an ad is ambiguous, participants will rely on CO valence cues to develop their ad attitudes, to infer product beliefs, and to form their brand evaluations. In contrast, when essential product-attribute messages are included in an ad, CO valence cues will not exert significant influences on participants’ ad atti-
tudes, inferred product quality beliefs, or brand evaluations.

H1: There is a significant CO valence cue by ad type interaction on ad attitudes (H1a), inferred product quality (H1b), and brand evaluations (H1c). When product information in ads is ambiguous, CO valence cues will affect par-
ticipants’ ratings, whereas when product information is unambiguous, CO valence cues will not affect participants’ ratings.
Additionally, this research will attempt to explore the process by which product evaluations are developed at different degrees of message ambiguity. This research proposes that, when product-attribute information is ambiguous, participants make product-quality inferences based on CO cues, which further determines their product evaluations. In contrast, when unambiguous product-attribute information is featured in an ad, a situation in which heuristic processing is less likely to occur, participants’ assessments of the product’s attributes will significantly predict their product evaluations.

H2a: When product information in ads is ambiguous, CO valence cues will affect the perceived quality participants infer about the advertised product, which in turn will have an impact on how the advertised brand is evaluated.

H2b: When product information in ads is unambiguous, assessments of product attributes have direct effects on brand evaluations.

EXPERIMENT 1

Design

This is an experimental design with two between-subject factors. The two between-subject factors are CO valence cue (two levels: favorable vs. unfavorable) and ad message type (ambiguous ads vs. unambiguous ads).

Procedures

For the study 266 participants were recruited from a large university in Taiwan. Participants were randomly assigned to one of four different conditions (CO valence cue by ad type). The participants were told that the study was concerned with how consumers process product information in advertisements. The participants then read one filler ad, one ad for bath towels, and a second filler ad. After reading the ads, participants were asked to assess the attributes of the products, to rate the quality of the advertised products, to evaluate the advertised brands, and to rate their attitudes toward the ads. They were also asked to rate their general attitudes toward products made in the two countries represented in the ads.

Independent Variables

CO cue valence (favorable vs. unfavorable). A pretest \( n = 20 \) asked participants to list the importing countries with which they were familiar. Another
pretest \((n = 120)\) was conducted to select a country among those collected from the first pretest that was known for high-quality products and one that was known for low-quality products. The scale developed by Parameswaran and Pisharodi (1994) was adopted to explore the participants’ general attitudes toward products made in different countries. The 7-point Likert scale contained 18 items. As a result, France was chosen to represent a favorable manufacturing country, whereas China\(^1\) was selected to represent an unfavorable manufacturing country, \(t(1, 119) = 19.91, p = .01\), \(M_{\text{France}} = 4.88, SD = 72\), \(M_{\text{China}} = 2.81, SD = .86\). As a manipulation check, participants in Experiment 1 were asked about their general attitudes toward products made in France and China. Cronbach’s reliability alphas were deemed satisfactory at .76 for products made in France and .75 for products made in China. A \(t\) test revealed that products made in France were perceived to be superior to products made in China, \(t(1, 256) = 29.02, p < .01\), \(M_{\text{France}} = 4.66, SD = .57\), \(M_{\text{China}} = 3.14, SD = .65\). Therefore, the manipulation was considered successful.

**Ad type (ambiguous ad vs. unambiguous ad).** The ambiguous ad in this study contained vague ad copy that did not specifically address product attributes. However, for ads in the unambiguous condition, specific product-attribute information was included in the copy. The graphics and layout for each bath towel ad were identical in both the ambiguous ad and unambiguous ad conditions.

**Dependent Measures**

**Ad attitudes.** An 8-item 7-point Likert scale was used to measure participants’ attitudes toward ads. Four items were adopted from Madden, Allen, and Twible (1988). The four items were interesting, good, likable, and pleasant. The other four items were adopted from Beltrami’s (1982) advertising believability scale. The four items were believable, convincing, reasonable, and authentic. Factor analyses produced only one factor with an eigenvalue larger than 1.0. Cronbach’s reliability alpha for the ad attitude scale was deemed satisfactory at .93.

**Inferred product quality.** For the purposes of this research, inferred product quality is a belief about a product’s quality that is not specifically stated in ads but which can be inferred by consumers from their general knowledge of products originating from a specific country. The items for quality beliefs were determined by a pretest \((n = 20)\). Participants in the pretest were asked what attributes they used to judge the quality of bath towels. The three quality items that were listed with the highest frequency were good quality, perfectly made, and good fabric.
Subsequently, participants in Experiment 1 used a 7-point Likert scale to rate their agreement with statements that the advertised bath towels had the listed qualities. Cronbach’s reliability alpha was deemed satisfactory at .86.

**Brand evaluations.** A 4-item 7-point product evaluation scale was adopted from Holbrook and Batra (1987). The four items were dislike–like, negative–positive, bad–good, and unfavorable–favorable. Cronbach’s reliability alpha was deemed satisfactory at .92.

**Assessments of product attributes.** Participants were also asked how likely it was that the products had the following attributes: soft in touch, a large selection of colors, artful design, and a variety of sizes, which were selected from a pretest (n = 20) that asked participants to list the most important attributes when evaluating a bath towel. The results were summed and averaged for the analyses.

**Analyses and Results**

**Interaction between CO valence and ad type (H1a, H1b, and H1c).** Ad attitude, inferred product quality, and brand liking were highly correlated (Pearson’s R > .63, p < .01 for each pair); therefore, MANOVA was used to test the first set of hypotheses. MANOVA showed that the two-way interaction (CO valence by ad type) was significant, F(3, 265) = 2.61, p = .05. Moreover, when results of univariate ANOVA were examined, they revealed that the CO valence by ad type two-way interactions on ad attitude, F(1, 265) = 6.96, p = .01; inferred product quality, F(1, 265) = 7.40, p = .01; and brand attitude, F(1, 265) = 4.54, p = .03, were all significant. The significant interactions qualified further lower level comparisons.

When ad attitude ratings of participants in the ambiguous ad condition were analyzed, the main effect of CO valence cues emerged, F(1, 132) = 11.59, p = .01, MFrance = 4.65, SD = 1.02, MChina = 4.0, SD = 1.17. Further analyses of participants’ ratings of ad attitudes in the unambiguous ad condition indicated that, as expected, the influence of CO valence cues on ad attitude was not significant, F(1, 133) = .03, p = .87, MFrance = 4.40, SD = 1.07, MChina = 4.43, SD = .92. Therefore, H1a was supported. Moreover, when inferred product quality ratings of participants in the ambiguous ad condition were analyzed, the main effect emerged, F(1, 132) = 17.41, p = .01, MFrance = 4.89, SD = 1.23, MChina = 3.93, SD = 1.40. Further analyses of participants’ inferred quality ratings in the unambiguous ad condition indicated that, as expected, the influence of CO valence cues on inferred product quality was
not significant, $F(1, 133) = .33, p = .57, M_{France} = 4.61, SD = 1.31, M_{China} = 4.49, SD = 1.05$. Therefore, H1b was supported. Finally, when brand evaluations ratings of participants in the ambiguous ad condition were analyzed, the main effect of CO valence cues emerged, $F(1, 132) = 6.91, p = .01, M_{France} = 4.63, SD = 1.02, M_{China} = 4.12, SD = 1.20$. Further analyses of participants’ brand evaluations ratings in the unambiguous ad condition indicated that, as expected, the influence of CO valence cues on brand evaluations was not significant, $F(1, 133) = .18, p = .68, M_{France} = 4.30, SD = 1.15, M_{China} = 4.38, SD = 1.16$. Therefore, H1c was supported.

The product evaluation process (H2a and H2b). H2a suggests that, when processing ads in which product information is ambiguous and CO is the salient cue, CO valence cues are hypothesized to affect the perceived quality that consumers infer about the advertised product, which in turn will have an impact on how the advertised product is evaluated. Adopting Baron and Kenny’s approach (1986), we conducted a series of regression analyses to establish the mediation process, with CO valence cues and product involvement being dummy coded. When responses of participants assigned to the ambiguous ad condition were analyzed, the results showed that (a) CO valence cues exerted a significant impact on inferred product quality ($\beta = .96, p < .01$); (b) inferred product quality contributed significantly to brand evaluations ($\beta = .55, p < .01$); (c) when both CO valence cues and inferred product quality were in the equation, the effects of CO valence cues on brand evaluations disappeared (from $\beta = .51, p < .01$ to $\beta = -.01, p = .93$); (d) but the impact of inferred product quality remained significant ($\beta = .55, p < .01$). These results provided confirmatory evidence for H2a.

H2b suggests that, when product information is unambiguous, assessments of product attributes have direct effects on product evaluations. When responses of participants assigned to the unambiguous ad condition were analyzed, CO valence cues did not account for significant variance in inferred product quality ($\beta = .05, p = .57$), and CO valence cues did not account for significant variance in brand evaluations ($\beta = -.05, p = .61$). These results indicated that CO valence cues neither influenced brand evaluations nor affected brand evaluations through the mediation of inferred product quality. Instead, assessments of product attributes had significant effects on participants’ brand evaluations ($\beta = .65, p = .01$), supporting H2b.

Discussion

Findings in Experiment 1 suggest that ad message type may be an important moderator of CO-based heuristic processing. When product information was vague, participants relied on CO cues to evaluate ads, infer product quality, and generate
product evaluations. In contexts in which product information was unambiguous, heuristic processing was discouraged and CO valence cues did not exert any significant influence on participants’ responses to the ads or the products. The different processes through which products were evaluated in the ambiguous ad and the unambiguous ad conditions have also been established. The established mechanisms provided further support for the CO cue-based heuristic processing in the ambiguous ad condition and attribute-based systematic processing in the unambiguous ad condition.

It is important to note that the product examined in this study, bath towels, is probably a low-involving product for participants in this study. Therefore, it seems necessary to replicate this study using products that evoke different levels of involvement. Most important, the processing differences proposed by the heuristic–systematic model mainly are determined by motivation to elaborate on messages, which has been shown to be altered by participants’ existing product category involvement (e.g., Laczniak, Kempf, & Muehling, 1999; Muehling & Laczniak, 1992).

PRODUCT INVOLVEMENT AS A MODERATOR OF CO-BASED HEURISTIC PROCESSING

One individual difference variable, involvement, has drawn a great deal of attention from advertising researchers. An individual can be involved with advertising message processing, with products, or with purchase decisions (see Zaichkowsky, 1985, for a review). This research primarily concerns product involvement, originating from individuals’ perceived sense of relevance to a product, as well as the characteristics of the product (Salmon, 1986). Considerable evidence indicates that an individual’s product involvement affects his or her motivation to process advertising messages (e.g., Laczniak, Kempf, & Muehling, 1999; Wright, 1973).

As reviewed earlier, past research has well documented that an individual’s motivation determines the way that individual processes information (e.g., Chaiken, 1980; Chaiken & Maheswaran, 1994). When individuals’ motivation or ability is low, a heuristic mode of processing is more likely to be engaged; however, when individuals’ motivation and ability is high, a systematic mode of processing is more likely to occur. Yet, this study suggests that participants’ lack of motivation to process information regarding low-involving products can be altered by message factors. Ads with unambiguous product information will encourage systematic processing and reduce the extent to which individuals rely on CO valence cues, whereas ads with ambiguous product information will encourage heuristic pro-
cessing, generating significant CO valence cue effects. Therefore, this research expects a significant interaction between ad type and CO valence cue when participants are processing ad messages for a low involving product.

On the other hand, Maheswaran et al. (1992) further suggested that, under conditions that are conducive to both processing modes, heuristic and systematic processing can co-occur and exert interactive and independent influences on judgments. For example, they have shown that, when participants’ processing capacity is high and valence of heuristic cues is congruent with product information, brand evaluations are based on the additivity effects of attribute assessments and the valence of heuristic cues. Therefore, this research theorizes that when processing ad messages for a high-involving product, heuristic processing and systematic processing can co-occur. Due to the additivity effect, a significant main effect of CO valence will still emerge regardless of the ad type to which participants are exposed.

H3: There is a significant CO valence cue by ad type by product involvement three-way interaction on ad attitudes (H3a), inferred product quality (H3b), and brand evaluations (H3c). For low-involving products a significant CO valence cue by ad type interaction will emerge, whereas for high-involving products only a significant main effect of CO valence cue will emerge.

Even though the influence of processing modes can reflect on outcome variables, the heuristic–systematic model conceptualizes the additivity effects as mediational in nature (Maheswaran et al., 1992). Therefore, in this research I specifically explore the process by which participants develop their brand evaluations under different conditions. I argue that, under conditions in which the advertised product is low involving and ad messages are ambiguous, participants will rely on CO valence cues to infer product quality and, further, to develop their brand evaluations. In clear contrast, under conditions in which the advertised product is low involving and ad messages are unambiguous, participants will engage in systematic processing, and their assessments of product attributes will affect their brand evaluations.

On the other hand, as argued earlier, heuristic processing and systematic processing can co-occur when individuals process ad messages for a high-involving product. Especially in situations in which product information is unambiguous, both CO cues and product-attribute messages provide important and helpful information for product assessments. As a result, both CO cue valence and direct assessments of product attributes should be taken into account and, together, determine how the product is evaluated.
H4a: For low-involving products, when ad information is ambiguous, only CO
valence cues will exert influence on brand evaluations through their influ-
ence on inferred product quality.

H4b: For low-involving products, when ad information is unambiguous, partici-
pants’ assessments of product attributes will determine their brand evalua-
tions.

H4c: For high-involving products, when ad information is unambiguous, assess-
ments of product attributes will have significant direct influence on product
evaluations, and CO valence cues will also exert indirect influence on
brand evaluations through their influence on inferred product quality.

EXPERIMENT 2

Design

This is a mixed experimental design with two between-subject factors and one
within-subject factor. The two between-subject factors are CO valence cue (two
levels: positive vs. negative) and ad message type (ambiguous ad vs. unambiguous
ad). The within-subject factor is product involvement (high involvement vs. low
involvement).

Procedures

For this study 136 participants were recruited from a large university in Taiwan.
Participants were randomly assigned to one of four different conditions (CO va-
lence cue by ad type). The participants then read one filler ad, one ad for sneakers,
one ad for bath towels, and a second filler ad. Other details regarding the proce-
dures were similar to those in Experiment 1.

Independent Variables

CO valence (favorable vs. unfavorable). As a manipulation check, partici-
pants in this study were asked about their general attitudes toward products made
in France and China using Parameswaran and Pisharodi’s (1994) scale. Cronb-
bach’s reliability alphas were deemed satisfactory at .75 for products made in
both France and China. A t test revealed that products made in France were per-
ceived to be superior to products made in China, $t(1, 135) = 18.89, p < .01, M_{France}$
\[ = 4.64, SD = .62, M_{China} = 3.13, SD = .64. \] Therefore, the manipulation was considered successful.

**Product involvement (high vs. low).** Based on a pretest \((n = 20)\), bath towels were chosen to represent low-involving products, whereas sneakers were selected to be the high-involving product. As a manipulation check, participants in Experiment 2 were asked to rate their involving levels with bath towels and sneakers on a 7-point Likert scale. The scale was composed of the following three items: how intensive participants’ search for product information is before purchase, how likely participants are to compare brands before purchase, and how closely participants examine product attributes before purchase. Cronbach’s reliability estimates were .96 for bath towels and .95 for sneakers. The \(t\) tests showed that the means for bath towels and sneakers were significantly different, \(t(1, 135) = 12.86, p < .01, M_{towel} = 5.41, SD = 1.35, M_{sneakers} = 3.78, SD = 1.63. \) Therefore, the manipulation was successful.

Ulgado and Lee (1993) suggested that strong brand names can moderate CO effects; therefore, fictitious brand names were used. The names were determined by a pretest \((n = 20)\) not to have any CO associations. In addition, given that product involvement was a within-subject factor, participants were exposed to one ad for bath towels and another ad for sneakers. The order of the two ads was rotated. Order had no significant effects on any of the three dependent variables for ad attitude, \(F(1, 135) = .74, p = .48; \) for inferred product quality, \(F(1, 135) = .01, p = .99; \) and for brand liking, \(F(1, 135) = 1.26, p = .29. \) Therefore, participants’ responses to bath towels and sneakers were collapsed across the two orders.

**Ad type (ambiguous ad and unambiguous ad).** The same ad type manipulation as in Experiment 1 was adopted here.

**Dependent Measures**

**Ad attitudes.** The same scale as in Experiment 1 was adopted here. Cronbach’s reliability alphas for the ad attitude scale were deemed satisfactory at .93 for bath towels and .95 for sneakers.

**Inferred product quality.** The three quality belief items for bath towels from Experiment 1 were adopted. The quality belief items for sneakers were determined by a separate pretest \((n = 22)\). Participants in the pretest were asked what attributes they used to judge the quality of sneakers. The three most frequently mentioned quality items were adopted, namely, *comfortable, durable*, and *good quality*. Sub-
sequently, participants used a 7-point Likert scale to rate their agreement with statements that the advertised bath towels and sneakers had the listed qualities. Cronbach’s reliability alphas were deemed satisfactory at .84 for bath towels and .91 for sneakers.

**Brand evaluations.** The same scale as in Experiment 1 was adopted here. Cronbach’s reliability alphas were deemed satisfactory at .94 for bath towels and .93 for sneakers.

**Assessments of product attributes.** Participants were also asked how likely it was that the products had certain attributes, which were selected from a pretest (n = 22). The attributes for bath towels were *soft in touch, a large selection of colors, artful design, and a variety of sizes.* The attributes for sneakers were *great style, a wide range of functions, a large selection of styles, and a large selection of colors.* The results were summed and averaged for the analyses.

**Analyses and Results**

The interaction among CO valence, ad message, and product involvement (H3a, H3b, and H3c). Given that male and female participants may have responded to the bath towels and sneakers differently, gender was run as a covariate in this experiment. Moreover, ad attitude, inferred product quality, and brand liking were highly correlated (p = .01 for each pair); therefore, MANCOVA was conducted to test the hypotheses. Repeated measure MANCOVA showed that the three-way interaction (CO valence cue by ad message by product involvement) was significant, \( F(3, 133) = 4.04, p = .01 \). When results of repeated measure ANCOVA were examined, they revealed that the three-way interactions on ad attitude, \( F(1, 135) = 11.56, p = .01 \); inferred product quality, \( F(1, 130) = 9.18, p = .01 \); and brand attitude, \( F(1, 135) = 7.95, p = .01 \) were all significant. These significant interactions qualified further lower level comparisons.

When ad attitude ratings for low-involving products were analyzed, a significant ad type by CO valence cue interaction emerged, \( F(1, 135) = 13.41, p = .01 \) (see Figure 1). Further simple contrast indicated that, as expected, the influence of CO valence cues was significant when ad messages were ambiguous, \( F(1, 68) = 11.42, p = .01, M_{France} = 4.81, SD = .91, M_{China} = 3.89, SD = 1.21 \), whereas the influence of CO valence cues on was not significant when ad messages were unambiguous, \( F(1, 65) = 2.24, p = .14, M_{France} = 4.24, SD = 1.09, M_{China} = 4.62, SD = .88 \). In clear contrast, when ad attitude ratings for high-involving products were analyzed, only a significant main effect of CO valence cue emerged, \( F(1, 135) = 5.67, p =\)
Figure 1. The interaction of CO valence and ad type on ad attitudes for low-involving products.

.02, M_{France} = 4.09, SD = 1.00, M_{China} = 3.63, SD = 1.24; a significant ad type by CO valence cue interaction did not, F(1, 135) = .14, p = .71. Therefore, H3a was supported.

When inferred product quality ratings for low-involving products were analyzed, a significant ad type by CO valence cue interaction emerged, F(1, 135) = 9.64, p = .01 (see Figure 2). Further simple contrast indicated that, as expected, the influence of CO valence cues was significant when ad messages were ambiguous, F(1, 68) = 16.05, p = .01, M_{France} = 5.09, SD = 1.07, M_{China} = 3.76, SD = 1.53, whereas the influence of CO valence cues was not significant when ad messages were unambiguous, F(1, 65) = .01, p = .93, M_{France} = 4.55, SD = 1.42, M_{China} = 4.59, SD = 1.01. In contrast, when inferred quality ratings for high-involving products were analyzed, only a significant main effect of CO valence cue emerged, F(1, 135) = 9.17, p = .01, M_{France} = 4.40, SD = 1.21, M_{China} = 3.73, SD = 1.37, a significant ad type by CO valence cue interaction did not, F(1, 135) = .14, p = .71. Therefore, H3b was supported.

When brand evaluation ratings for low-involving products were analyzed, a significant ad type by CO valence interaction emerged, F(1, 135) = 9.68, p = .01 (see Figure 3). Further simple contrast indicated that, as expected, the influence of CO valence cues was significant when ad messages were ambiguous, F(1, 68) = 6.38, p = .01, M_{France} = 4.76, SD = 1.07, M_{China} = 4.06, SD = 1.19, whereas the influence of CO valence cues was not significant when ad messages were unambiguous, F(1, 65) = 3.13, p = .08, M_{France} = 4.10, SD = 1.19, M_{China} = 4.62, SD = 1.15. In clear
Figure 2. The interaction of CO valence and ad type on inferred product quality for low-involving products.

Figure 3. The interaction of CO valence and ad type on brand liking for low-involving products.
contrast, when brand evaluation ratings for high-involving products were analyzed, only a significant main effect of CO valence emerged, $F(1, 135) = 4.35, p = .04, M_{France} = 4.27, SD = 1.17, M_{China} = 3.82, SD = 1.34$, a significant ad type by CO valence interaction did not, $F(1, 135) = .01, p = .96$. Therefore, H3c was supported.

The product evaluation process (H4a, H4b, and H4c). When responses for low-involving products in the ambiguous ad condition were considered, regression analyses indicated that CO valence cues had a significant influence on product evaluations ($\beta = .23, p = .01$) and on inferred product quality ($\beta = .34, p < .01$). In turn, inferred product quality contributed significantly to the variance in participants' attitudes toward towels ($\beta = .67, p < .01$). In addition, when both CO valence cues and inferred product quality were included in the equation, the influence of CO valence cues on product evaluations became insignificant ($\beta = -.01, p = .93$), whereas the influence of inferred product quality remained significant ($\beta = .67, p = .01$). Also, when assessments of product attributes were included in the regression, they did not contribute to significant variance of product evaluations ($\beta = .19, p = .13$). Therefore, H4a was supported.

When responses for low-involving products in the unambiguous ad condition were considered, regression analyses showed that CO valence cues did not have a significant influence on product evaluations ($\beta = -.05, p = .61$), whereas assessments of product attributes did ($\beta = .65, p < .01$), suggesting a systematic mode of processing. Therefore, H4b was supported.

When responses for high-involving products in the unambiguous ad condition were considered, regression analyses indicated that CO valence had a significant influence on brand evaluations ($\beta = .18, p = .04$) and on inferred product quality ($\beta = .25, p < .01$). In turn, inferred product quality contributed significantly to the variance in participants' attitudes toward sneakers ($\beta = .65, p < .01$). In addition, when both CO valence cues and inferred product quality were included in the equation, the influence of CO valence cues on brand evaluations became insignificant ($\beta = .02, p = .83$), whereas the influence of inferred product quality remained significant ($\beta = .64, p < .01$). These results indicated that CO valence cues influenced brand evaluations via their influence on inferred product quality. Moreover, when CO valence cues, inferred product quality, and assessments of product attributes were all in the equation, the impact of CO valence cues was not significant ($\beta = -.07, p = .31$), whereas inferred product quality and assessments of product attributes still contributed significantly to the variance of brand evaluations ($\beta = .22, p = .04$ for inferred product quality; $\beta = .46, p < .01$ for assessments of product attributes). The findings suggested an additivity effect, supporting H4c.

Another series of analyses were conducted to understand the process via which product evaluations were formulated for high-involving products in the ambiguous
ad condition, which was not specifically hypothesized in this study. Regression analyses indicated that CO valence cues did not have a significant influence on brand evaluations ($\beta = .04, p = .61$). However, assessments of product attributes did contribute significantly to brand evaluations ($\beta = .77, p < .01$). The results indicate that participants engaged in systematic processing and did not take products’ CO valence cues into account. Given the limited information provided in the ad, it is likely that the assessment may be based on their existing product category knowledge.

Discussion

Findings in Experiment 2 suggest that product involvement may moderate the way participants process ad messages. For low-involving products, the ad type by CO valence cue interaction was significant on each of the three dependent variables. Further regression analyses indicated that when product information was ambiguous, participants engaged in heuristic processing, whereas when product information was not ambiguous, participants adopted systematic modes of processing.

In clear contrast, for high-involving products significant ad type by CO valence cue interactions did not emerge on any of the three dependent measures. Instead, the main effects of CO valence cues were significant on each of the three variables. This suggests that CO valence may have been taken into account in evaluating the high-involving product. Further mediational analyses indicated that the additivity effect emerged for participants exposed to unambiguous ad information for a high-involving product and a systematic processing mode emerged for participants exposed to ambiguous ad information for the same high-involving product.

GENERAL DISCUSSION

With the development of international trade and cross-border shipping systems, country boundaries for marketing are disappearing. Product selling, much of the time, is not limited to the country in which products are manufactured. Consumers are faced with products that have similar features but different countries of origin. Therefore, how products’ countries of origin affect the way consumers evaluate them will always be an important concern for marketers. Past studies have demonstrated that consumers’ existing knowledge of products manufactured in different countries has an impact on how they evaluate advertised products under certain conditions, but not under others. However, no specific theories have yet been implicated in this research tradition to explain the differences. This article goes beyond past research in applying the heuristic–systematic model to argue that CO va-
lence cues function as judgment heuristics and, therefore, may not exert significant effects when consumers are motivated to develop accurate evaluations of a product. Consistent with findings in the heuristic and systematic literature, results of this study have confirmed that cue-based heuristic processing does not necessarily occur in all situations. Therefore, the model provides a good explanation for the inconsistency in past research.

Because product evaluations are likely to be formed when participants are exposed to advertising messages, it is important to explore how variations in advertising messages can determine whether or not ad perceivers will engage in CO cue-based heuristic processing. In these two experiments, one important advertising message difference under empirical investigation concerns the ambiguity of the information that is contained in ads. Ads for an imported product can emphasize the product’s originating country, with or without featuring other product-attribute information. Variations in message ambiguity may alter the salience of CO valence cues and further determine their persuasive impact. Consumers seem to rely on the rule “products made in certain countries are of high quality” only in response to ad messages that convey ambiguous product information.

Most important, this research has demonstrated that participants develop their brand evaluations through different processes when product information is ambiguous, as opposed to when product information is unambiguous. Moreover, unique to this study, the process by which CO valence cues work as heuristic decisional rules is also established. When CO cue-based heuristic processing is adopted, consumers infer the association between a product’s CO and its product quality, which further affects consumers’ evaluations of the product. This suggests that, indeed, consumers apply the heuristic cue that “products manufactured in certain countries are of good quality” to judge products.

Additionally, in line with past literature that theorizes that product involvement determines the way participants respond to advertising messages, product involvement in this study has also been shown to moderate the extent to which consumers rely on CO valence cues to process advertising messages. In contrast to past research concerning the heuristic–systematic model that manipulated participants’ involvement by assigning them important or unimportant tasks, this research explored existing involvement with different product categories, which is of more interest to marketers. The processing variations concerning high- and low-involving products can be explained by the heuristic and systematic framework, which suggests that the two primary processing modes can exert independent influences or co-occur and exert interdependent influences.

It is important to note that the mechanism established in this research rules out one other alternative explanation of CO effects that has been discussed in past liter-
nature: specifically, the theory that a CO valence cue functions as a product attribute and influences product evaluations in the same way as do typical product attributes. Findings in the two experiments have provided evidence that CO effects occur by way of the mediation of inferred product quality. For example, as discussed earlier in Experiment 2, in which high-involvement products were considered, the influence of product attribute assessments on brand evaluations is still significant when inferred product quality is in the equation and yet the influence of CO cue valence becomes insignificant. This may indicate that CO cue does not simply function as a typical product attribute.

Findings of the two experiments also offer important implications for international advertisers. Specifically, for low-involving products made in countries that are notorious for low quality, it is essential to provide product-attribute information to counteract the negative effects that CO valence cues may introduce. In contrast, for products made in countries that are famous for high quality, either highlighting their originating country or addressing specific product attributes will lead to positive evaluations of the products. Nevertheless, for high-involving products, country of origin, when known to the consumer, will generate an advantage for countries enjoying a positive perception but will produce a negative effect for countries suffering from a negative perception, especially when the ambiguity level of product information is low. Theoretically, the moderating effects of ad-message configuration and product-involvement level should not be limited to the discussion of CO valence cues. Future studies following from the heuristic and systematic framework can explore other learned associations, as well as the circumstances under which these learned associations will exert persuasion influences.

The findings of this study may be extended to understand how country-related perceptions, other than CO, may affect how consumers respond to media content. For example, when viewers watch a news program showing a newly developed technology, as they recognize that it was invented in either a developing country or a developed one, viewers may interpret the same piece of news in divergent ways, depending on whether they are motivated to process the message or not and how the news was substantiated.

Findings of this study should also be discussed within its limitations. The stimuli ads in this study may not have looked like real ads to the participants. Therefore, the quality of the stimuli ads may have evoked idiosyncratic cognitive responses that biased their processing. In addition, product involvement may have been confounded by product familiarity because college students should be more familiar with purchasing a pair of sneakers than purchasing a bath towel. Finally, CO perception, even though important in its own right, may have been confounded by
other country-related perceptions such as racial stereotypes and foreignness. Related to this point is the fact that only one country was selected to represent each valence condition, and other factors may have been at work. Therefore, further investigations should consider the possible confounding influences of other factors, as well as replicate the study using products originating from other countries.

NOTES

1Even though some politicians claim that Taiwan and China are one nation, in reality, Taiwan and China are separate entities. Most important, as it pertains to this research, Taiwanese consumers perceive that products from China are of low quality, as suggested by results of the pretest (N = 120) mentioned in the article. It is interesting to further note that China, Hong Kong, and Taiwan differ in the degree of their economic development. Therefore, even though Hong Kong is a region of China, Taiwanese consumers do not perceive products from Hong Kong to be of inferior quality because Hong Kong is well-developed. Past literature has suggested that country-of-origin bias is caused by the degree of economic development in different countries (e.g., Cattin, Jolibert, & Lohnes, 1982; Khanna, 1986). Developed countries are usually believed to manufacture products with quality superior to products of developing countries. Consequently, it seems to be that it is a country’s economic status, not its political ideology, that determines the perceived quality of products originating from that country. In a way, product judgments fall into a dimension that is unrelated to individuals’ political lives. Therefore, comparing products from China, a developing country, with France, a well-developed country, should be justified.

REFERENCES


