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The Effect of Cultural Differences, Source Expertise, and Argument Strength on Persuasion: An Experiment with Canadians and Thais

Chanthika Pornpitakpan
June N. P. Francis

ABSTRACT. The predictions derived from the Elaboration Likelihood Model and Hofstede’s culture model are tested with 76 Canadian and 185 Thai undergraduate students in a 2 (cultures) \times 3 \times 2 \times 2 factorial between-subjects quasi-experiment. Three dimensions of culture—power distance, uncertainty avoidance, and individualism-collectivism—are predicted to affect the weight of source expertise and argument strength in persuasion. As expected, source expertise has a greater impact on persuasion in the Thai culture (high power distance, high uncertainty avoidance, and collectivist) than in the Canadian culture (low power distance, low uncertainty avoidance, individualist), whereas argument strength has more influence in the Canadian than in the Thai culture.

KEYWORDS. Source expertise, source credibility, Thailand, Canada, cross-cultural differences, advertising effects, persuasion, Elaboration Likelihood Model, argument strength, message quality
When promoting an organization’s product or services marketers have to decide on the kinds of messages to be used to persuade prospective buyers to purchase their products. At one extreme, advertising and sales messages can focus on the strengths and weaknesses of the product/service. At the other extreme, messages can focus on the credibility, attractiveness, and power of the source of the message. These two routes to persuasion are supported by the main tenets of the Elaboration Likelihood Model (Petty and Cacioppo 1981a, 1986a, 1986b), hereafter referred to as the ELM.

Despite the widespread use of this model in persuasion studies, very little research has verified the cross-cultural applicability of this framework (Aaker and Maheswaran 1997). Indeed most consumer psychology studies have been conducted primarily in the United States, thus calling into question the cross-cultural generalizability of many of the findings in this area. This research addresses this gap by investigating the role of cultural variables in the ELM. In particular, it investigates the influence of cultural differences on the relative effectiveness of the source expertise and the argument strength of the message in the ELM. By exploring how culture affects the efficacy of source effects and argument quality, the results of this research should contribute to the debate on international advertising standardization versus adaptation.

THE ELABORATION LIKELIHOOD MODEL

The ELM is one of the widely applied persuasion models in social sciences in general and in the marketing literature in particular. It proposes two relatively distinct routes to persuasion. In the central route, attitudes are formed and changed by careful consideration and integration of information relevant to the issue. In the peripheral route, on the other hand, attitudes are formed and changed without the person actively thinking about information central to the merits of the issue but rather by associating the object with positive or negative cues or by using cognitive “short cuts.” Any one variable can serve in multiple roles and can influence persuasion by invoking different processes in different situations. For example, an expert source can serve as a peripheral cue or can serve as a persuasive argument related to the central merits of an issue. It can also affect persuasion by influencing the extent and the direction of argument elaboration. In addition, depending on the level of recipients’ motivation and other factors, either route to persuasion might dominate or both routes may co-occur (Chaiken and Maheswaran 1994; Petty and Cacioppo 1986b).

In the context of advertising messages, the quality or strength of the arguments presented in the advertising message—usually in the form of attribute description—is often used to invoke the central route processing. On the
other hand, the message source or product endorser characteristics are frequently used to invoke the peripheral route processing. It should, however, be noted that although source characteristics are usually used to invoke peripheral route processing, under some conditions source characteristics might also invoke central route processing. In addition, while both types of variables can affect persuasion, the effectiveness of source characteristics and argument quality depend on the degree to which recipients are able or motivated to process the message.

With respect to the source characteristics (Petty and Cacioppo 1984), when recipients are either unmotivated or unable to evaluate the arguments in the message, a positive source tends to enhance persuasion, regardless of the argument strength. On the other hand, when recipients are highly motivated or able to process the arguments, strong arguments are more persuasive than are weak ones, regardless of the source. Lastly, when recipients are moderately motivated or able to process the arguments, they seem to use various cues in the persuasion context, including source factors, to determine how much they think about the message. A source cue that enhances thinking will increase persuasion if the arguments are strong, but will decrease persuasion if the arguments are weak.

Previous research using the ELM has found that when people are unmotivated (Petty and Cacioppo 1981b; Petty, Cacioppo, and Goldman 1981; Sorrentino et al. 1988 for uncertainty-oriented subjects only; Yalch and Elmore-Yalch 1984) and/or unable (Moore, Hausknecht, and Thamodaran 1986) to process a message, they rely on source credibility or source expertise as a simple cue. In this case, a high credibility/expertise source is more persuasive than is a low credibility/expertise one, regardless of the argument strength. On the other hand, when they are motivated (Heesacker, Petty, and Cacioppo 1983; Petty and Cacioppo 1981b; Petty et al. 1981; Sorrentino et al. 1988 for uncertainty-oriented subjects only) to process a message, strong arguments are more influential than are weak ones, regardless of the source credibility or source expertise. In this case, a source cue does not serve as a simple acceptance or rejection cue but may be considered together with all other information in the recipients’ attempt to assess the merits of both the arguments and the advocacy. Under moderate ability to process the message, a high expertise source is more influential than is a low expertise one only when arguments are strong (Moore et al. 1986).

The fact that source characteristics do not influence persuasion in highly motivated/able subjects suggests that argument strength cues may have greater diagnosticity than source cues have, at least among previous research subjects. Cue diagnosticity refers to recipients’ perception that inferences based on this information alone are a sufficient basis on which to form judgements (Aaker and Maheswaran 1997; Feldman and Lynch 1988; Lynch,
Marmorstein, and Weigold 1988). Nevertheless, most studies of this genre were conducted with subjects from Western countries and this fact does call into question the cross-cultural applicability of these findings (Aaker and Maheswaran 1997). In a study conducted on Hong Kong collectivist subjects, the cross-cultural robustness of dual process models such as the ELM was supported. More important, however, the authors concluded, “... heuristic cues such as... source credibility may be more diagnostic in collectivist compared to individualist cultures” (Aaker and Maheswaran 1997, p. 327). This suggests the need to include cultural factors in persuasion models.

**THE INFLUENCE OF CULTURAL DIFFERENCES IN THE ELABORATION LIKELIHOOD MODEL**

Cultural differences are important to international/global advertising researchers and practitioners. Cultural differences often dictate the decision to standardize international advertising and the degree and kind of adaptation to the advertising message that is needed. Since Hofstede’s (1980) influential study on cultural differences in work related values, some interests have focused on the effect of cultural values on advertising effectiveness (Han and Shavitt 1994; Zhang and Gelb 1996). Some studies have used Hofstede’s cultural model to examine international advertising differences (Albers-Miller and Gelb 1996; Cutler, Erdem, and Javalgi 1997; Leach and Liu 1998).

Hofstede (1980) identified four cultural dimensions, namely, power distance, uncertainty avoidance, individualism-collectivism, and masculinity-femininity. Building on these findings, in a study of 22 countries using a Chinese-developed questionnaire, Hofstede and Bond (1988) identified another dimension termed “Confucian Dynamism” (long- versus short-term orientations). The dimensions that appear to have the most direct implications for the ELM are power distance, uncertainty avoidance, and individualism-collectivism, and thus will be the only dimensions discussed in details.

**Power Distance**

Power distance is related to the way inequality in a society is perceived and dealt with. Hofstede (1991) defined power distance as “the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally” (p. 28). Power distance regulates the extent to which different members of society command respect and wield influence. For example, superiors and subordinates relate on a hierarchical system in work situations. In contrast, in low power distance societies, superiors and subordinates are relatively more equal. High power distance societies regard that individuals in positions of influence hold the power over what is right and good (Hofstede 1991). All of these suggest that individuals in high power
distance cultures tend to rely on the information from those in high status positions more than individuals in low power distance cultures do.

Dawar, Parker, and Price (1996) provided a direct support in a cross-cultural empirical study looking at the impact of Hofstede’s dimensions on interpersonal information exchange. The results pointed to power distance as one of the factors that influenced the relative reliance of consumers on personal versus impersonal approaches to seek information about products. The authors concluded, “Jointly, our analyses suggest that countries with high levels of uncertainty avoidance or power distance show a greater tendency to seek product information from personal sources rather than impersonal sources such as Consumer Reports” (p. 510).

Uncertainty Avoidance

Uncertainty avoidance refers to “the extent to which people feel threatened by ambiguous situations, and have created beliefs and institutions that try to avoid these” (Hofstede and Bond 1984, p. 419). There are several ways for high uncertainty avoidance societies to cope with uncertainty (Hofstede 1983). First, people use technology to protect themselves from the risks of nature and war. Second, people use laws and formal rules to protect themselves from the unpredictability of human behavior. Where laws cannot be made, individuals can create a feeling of security by the nomination of experts, whose words are accepted as a kind of law. Last, people may resort to religions to make uncertainty tolerable.

According to Hofstede (1980), people in high uncertainty avoidance cultures are concerned with security in life as opposed to taking risks. They search for ultimate, absolute truths and values as opposed to relativism and empiricism. They believe in experts as opposed to generalists and commonsense, and hold that ordinary citizens are incompetent relative to the authorities versus the view that authorities are to serve the citizens.

Hofstede’s characterization of high uncertainty avoidance cultures (relative to low uncertainty avoidance) indicates a greater reliance, in these cultures relative to other cultures, on experts. In the context of the ELM, this would suggest that individuals from high uncertainty avoidance cultures would have a greater reliance on source expertise cues than would those from low uncertainty avoidance cultures. The results from Dawar et al.’s (1996) study supported this expectation—individuals from high uncertainty avoidance cultures were more likely to seek product information from personal sources than impersonal sources relative to individuals from low uncertainty avoidance cultures.

Individualism-Collectivism

Collectivism is “a situation in which people belong to in-groups or collectivities which are supposed to look after them in exchange for loyalty”
whereas individualism is “a situation in which people are supposed to look after themselves and their immediate family only” (Hofstede and Bond 1984, p. 419). Collectivism subsumes concepts of interdependence, interpersonal sensitivity, conformity, mutual sympathy, personalism, and self-sacrifice for in-group members (Triandis 1988). A collectivist culture is characterized by a subordination of individual goals to the goals of a few large in-groups. In contrast, an individualist culture is characterized by several smaller and less demanding in-groups (Triandis, Bontempo, Villareal, Asai, and Lucca 1988).

Han and Shavitt (1994) investigated the applicability of the individualism-collectivism construct in an advertising context. The results showed that individualist advertising appeals were less effective in Korea (a collectivist culture) than in the more individualist USA. Likewise, collectivist advertising appeals were less effective in the USA than in Korea.

In a study that specifically looked at the applicability of the ELM in collectivist countries, Aaker and Maheswaran (1997) found support for the applicability of the ELM. In addition, they found significant differences that are particularly relevant to the current study. That is, there was evidence that consensus information (information about others’ opinions) played a greater role in persuasion for collectivist Hong Kong respondents than what had been found for individualist American respondents in other studies.

In studying cross-cultural differences, researchers have drawn on individual level variables to provide additional insights into consumer phenomena. For example, Steenkamp, Frenkel, and Wedel (1999) found support for the moderating influence of cultural values on individual level variables related to consumer innovativeness. Systematic differences in individual level variables result from the cultural reinforcement or discouragement these behaviors receive. Behaviors consistent with the cultural norms are reinforced while those that are inconsistent are discouraged (Steenkamp et al. 1999; Triandis 1989). As such, both group level and related individual level variables are needed to provide a comprehensive understanding of individuals’ dispositions and behaviors (Erbring and Young 1979).

In this vein, individualism-collectivism not only describes cultural behavior but also appears to be related to an individual level variable—locus of control. Locus of control refers to the degree to which people relate the occurrence of reinforcements (or lack of them) to their own actions (Ritchie and Phares 1969). Externally controlled persons perceive reinforcements to be primarily determined by factors beyond their control, such as chance, fate, or powerful others. In contrast, internally controlled individuals perceive that the reinforcements obtained are primarily due to their efforts.

A collective orientation implies a tendency to submit to one’s individual fate (Chan 1967; Hofstede 1980; Triandis 1988)—an external locus of control. On the other hand, an individualist orientation implies a desire to control
one’s fate—an internal locus of control. As another support of these implications, it has been concluded in a review that “the data strongly support the generalization that Oriental Asians are more external in their locus of control than are North American Caucasians” (Dyal 1984, p. 228). More recently, Hamid (1994) found that Chinese subjects, who were collectivist, were more external in their locus of control than were New Zealanders, who were individualist.

Research has investigated persuasion and conformity in relation to the locus of control. The results from Ritchie and Phares (1969) and from the American and Japanese subjects in McGinnies and Ward (1974) supported the predictions that externals should perceive a low credibility source as an unlikely source of reinforcement, and should thus be more readily persuaded by a high credibility source. On the other hand, because internals believe that they have control of potentially reinforcing events, they should be affected equally, and to a lesser extent than are externals, by both high and low credibility sources.

Ritchie and Phares (1969) found that externals were likely to conform but did not find that internals consistently resisted influence. Similarly, Ryckman, Rodda, and Sherman (1972) found that externals were more conforming to the opinions of a more expert person regardless of whether that person’s expertise was relevant or not to the issues. However, James, Woodruff, and Werner (1965) found that more internal subjects quit smoking than did external subjects after hearing the U.S. Public Health Service Surgeon General’s report. Also, there was more success in influencing the smoking behavior of internals than externals (Mausner and Platt 1971). These studies suggest that internals discriminate between what influences to accept. Authority by itself has little direct effect on their readiness to accept persuasion. In summary, the critical conclusion that can be drawn is that externally controlled persons (those associated with collectivism) appear to be more susceptible to persuasion by experts than are internally controlled persons (those associated with individualism). The discussions so far lead to the following hypothesis:

**H1:** In persuasion, individuals from high power distance and/or high uncertainty avoidance and/or collectivist cultures will be more influenced by source expertise than will individuals from low power distance and/or low uncertainty avoidance and/or individualist cultures.

As indicated above, research has suggested that internals do not appear to be directly influenced by the expertise of the source. Yet, it was reported that there was more success in influencing the smoking behavior of internals than externals after hearing the U.S. Public Health Service Surgeon General’s report (James et al. 1965). One explanation for such a finding, that internals were more persuaded than were externals, is that internals were more moti-
vated to process the arguments presented in these reports. In general, internals have a strong need to attribute their behavior as being “driven by their own efforts” and not to fate or other unexplainable events. Individualists (implying internally controlled persons) tend to use interpretive strategies that center on their own idiosyncratic values, attitudes, and preferences (Bailey, Chen, and Dou 1997). These arguments imply that internals would be more motivated to rely on facts and arguments than would externals. Furthermore, the ELM postulates that greater motivation will increase the role of central route (argument strength) in persuasion (Petty and Cacioppo 1986a). Taken together, these arguments suggest that argument strength effects would be greater for internals (associated with individualism) than for externals (associated with collectivism).

Two studies provided an even more direct support for the link between cultural values and the impact of argument strength. First, Dawar et al. (1996) found that individuals from low uncertainty avoidance and low power distance cultures tended to rely more on impersonal forms of information such as Consumer Reports than did individuals from high uncertainty avoidance and high power distance cultures. Second, Lee and Green’s (1991) study based on Fishbein model of persuasion indicated that individualist Americans were more heavily influenced by their own personal attitudes, whereas collectivist Koreans were more heavily influenced by social norms. The following is therefore hypothesized:

**H2:** In persuasion, individuals from low power distance and/or low uncertainty avoidance and/or individualist cultures will be more influenced by argument strength than will individuals from high power distance and/or high uncertainty avoidance and/or collectivist cultures.

**METHODS**

*Research Design*

The study employed a 3 (high versus moderate versus low source expertise) × 2 (strong versus weak argument strength) × 2 (Canadian versus Thai culture) factorial between-subjects design. This resulted in 12 experimental conditions (groups).

*The Experimental Product*

The selection of the product category for the experiment followed the criteria identified from previous research. First, the product must be simple enough to reduce the number of attributes that subjects have to judge (Gardner 1983). Second, it must be equally available to subjects in each culture and be functionally equivalent across the samples (Lee and Green 1991). Third,
the brand name should be unfamiliar to subjects to prevent the interference from experience with the brand. However, the product must be quite familiar to allow the formation of attitudes. Fourth, subjects must have neither strong pro-attitudinal nor strong counter-attitudinal positions toward the product to avoid ceiling or floor effect problems (Andrews and Shimp 1990).

Furthermore, subjects’ involvement with the product must be moderate. If involvement is extremely low, subjects might not process any cues associated with the message but choose to devote their attention to another task (Cacioppo and Petty 1984). If involvement is extremely high, they might not scrutinize the issue-relevant arguments to protect the self (Petty and Cacioppo 1979). Finally, the perceived risk and technical complexity of the product must be moderate. If the risk or complexity is extremely high, subjects may resort to the expert source without scrutinizing the message. On the other hand, if there is no risk or complexity at all, the expertise of the source may be totally irrelevant.

A pretest with 32 Thai students showed that shampoos met the above criteria. It was highly familiar to subjects, moderately simple, and of moderate involvement to subjects. The fictitious brand name “Silky Soft” was rated neutral in likability in the pretest. The “Silky Soft” brand name and the shampoo product category were then pretested with Canadian subjects. The Canadian results were consistent with the Thai results. Therefore, “Silky Soft” shampoo was chosen as the experimental product.

**Manipulation of Independent Variables and Manipulation Checks**

This study used an etic approach in that it employed uniform manipulations across the two cultures. This was achieved by selecting the experimental product, the brand name, and the manipulation of source expertise and argument strength from pretest results in one culture and then verifying these with the other culture. A few rounds of modifications and pretests were made until reaching identical manipulations across the two cultures.

The experimental stimulus featured advertisement copy of “Silky Soft” shampoo without pictorial components. This was to prevent any distraction from the “cosmetic” and “artistic” aspects of the stimulus so that participants’ responses could be invoked by the combination of the source expertise and argument strength only.

**Cultural Difference.** Cultural difference was operationalized through the culture of participants. The Canadian culture represented low power distance, low uncertainty avoidance, and individualism, whereas the Thai culture represented high power distance, high uncertainty avoidance, and collectivism (Hofstede 1991). While the Canadian and Thai cultures differ on all three dimensions, the difference is most pronounced on the individualism-collectivism dimension. Canada ranked 41st/42nd and 39th of 50 countries with
scores of 48 and 39, while Thailand ranked 30th and 21st/23rd with scores of 64 and 64 on the uncertainty avoidance scale and power distance scale, respectively. On the individualism scale, Canada ranked 4th/5th of 50 countries with a score of 80 while Thailand ranked 39th/41st with a score of 20. (Higher scores represented greater degrees of uncertainty avoidance, power distance, and individualism.) Canada and Thailand were judged to be sufficiently far apart on these dimensions to allow a test of the hypotheses, although not all three dimensions differed to the same extent.

**Argument Strength.** Arguments mean the bits of information contained in the advertisement copy that are relevant to an individual’s subjective determination of the true merits of the product (adapted from Petty and Cacioppo 1986a). Strong and weak arguments are those that when recipients are instructed to think about the message, the thoughts generated are predominantly favorable and predominantly unfavorable, respectively (Petty and Cacioppo 1986b).

To achieve the manipulation of argument strength, as a pretest, 32 Thai students listed the product attributes or benefits that were important to them in choosing shampoos. Then 20 potential message arguments were constructed and pretested with another group of 32 Thai students. The arguments with the highest mean scores were used for the strong argument version while those with the lowest mean scores were used for the weak version. To make the weak argument strength version appear realistic as advertisement copy, some positive points had to be included. These messages were then pretested with Canadian students. A few rounds of pretests and revisions were made before arriving at the final versions that elicited the same evaluation from both cultures.

The arguments in the strong version included: new high quality shampoo from France, nurturing the hair so that it is soft and easy to manage, available in five special formulas, containing various natural ingredients, coming in five gentle long-lasting fragrances, and certified by the National Drug and Cosmetic Research Institute of France. The arguments in the weak version included: new, nurturing the hair, coming in five fragrances, packaged in a beautiful bottle, available at all department stores, and available at all supermarkets. Both versions ended with a slogan “Love your hair, treat your hair with Silky Soft.”

As manipulation checks of argument strength, three semantic differential items (*all semantic differential items used in this research were 9-point*) asked what participants think of the advertisement copy, with responses anchored by very unbelievable/very believable, very unimportant/very important, and very weak/very strong. The Cronbach’s of this perceived argument strength scale were .84 and .90 for the Canadian and Thai data, respectively.

**Source (Endorser) Expertise.** Source (endorser) expertise means the extent
to which an endorser in the advertisement is perceived to be capable of making correct assertions (adapted from Hovland et al. 1953). According to the pretest results in both cultures, a song composer, a hairdresser, and a dermatologist were used for the low, moderate, and high source expertise conditions, respectively. These three sources were given identical name within each culture [Linda Howard in the Canadian culture and Witchuda Maneewong (in Thai language) in the Thai culture]. As manipulation checks, two semantic differential items measured the endorser’s perceived expertise by asking what participants think of the endorser of the shampoo in the ad, with responses anchored by very unbelievable/very believable and very inexpert on hair and scalp/very expert on hair and scalp. The Cronbach’s of this perceived expertise scale were .77 and .92 for the Canadian and Thai data, respectively.

**Measures of Dependent Variables**

Two variables were used to represent persuasion, namely, attitudes toward the brand and purchase intention. Apart from actual purchases, these two persuasion variables are most pertinent to marketers.

**Attitudes toward the brand** mean participants’ affective reactions to the advertised brand. Four semantic differential items were used. Three items asked what participants think of Silky Soft shampoo, with responses anchored by very bad/very good, very undesirable/very desirable, and very unsatisfactory/very satisfactory. The other item asked how much they like Silky Soft shampoo, with responses anchored by dislike very much/like very much. The Cronbach’s of the attitudes toward the brand scale were .92 and .91 for the Canadian and Thai data, respectively.

**Purchase intention** means participants’ assessment of the likelihood that they will purchase the brand (Lutz, MacKenzie, and Belch 1983). A semantic differential item asked whether they will buy the shampoo if it is available in the market at a reasonable price, with responses anchored by definitely not buy/definitely buy.

**Product involvement** refers to participants’ perceived relevance of the product based on inherent needs, values, and interests (adapted from Zaichkowsky 1985). It was used as a check that the experimental product is neither extremely low involving nor extremely high involving. Four semantic differential items asked what participants think of shampoos, with responses anchored by very unimportant/very important, very easy to choose/very difficult to choose, says nothing about me/says something about me, and not risky at all/very risky. The Cronbach’s of the involvement scale were .73 and .72 for the Canadian and Thai data, respectively.

**Questionnaires**

The questionnaires consisted of instructions, advertisements (which manipulated the source expertise and argument strength), and measures. The adver-
tisement copy was developed in Thai and pretested with Thais and then translated into English and pretested with Canadians. The measures needed to be developed in English as they were selected from the literature, which is in English, and then were translated into Thai. Translation equivalence was assured by the method of parallel translation as suggested by Frey (1970). This method uses a committee of translators fluent in the two languages. The various translations are then compared, and their adequacies are discussed until a final version is agreed upon. The parallel translation method is preferable to the back-translation procedure, which is not always effective (Brislin 1970).

Sample

Participants were undergraduate students in major cities in Canada and Thailand. They were randomly assigned to each experimental condition. After the elimination of non-natives, natives who have stayed abroad for more than five years (to minimize the problem of acculturation), outliers, and unusable questionnaires, the total number of questionnaires retained for further analyses was 261. These included 38 Canadian males, 38 Canadian females, 74 Thai males, and 111 Thai females.

Participants across groups did not differ in the distribution of gender (\(\chi^2\) test) but differed in the degree of involvement with shampoos \([F(11, 249) = 5.862, p < .0001]\). Therefore, involvement was included as a predictor in the regression analyses to test the hypotheses. The means of involvement ranged from 4.46 to 6.13 for Canadians and from 5.85 to 6.86 for Thais. These involvement scores were moderate, as desired.

RESULTS

Construct and Measurement Equivalence

To examine the construct and measurement equivalence of the key scales, the equality of the variance-covariance matrices between Canadian and Thai samples was tested as suggested by Riordan and Vandenberg (1994). The Box’s M test \([F(33, 30535) = 1.325, \text{n.s.}]\) could not reject the null hypothesis of equal variance-covariance matrices, which consisted of attitudes toward the brand and purchase intention. This confirmed the construct and measurement equivalence.

Manipulation Checks

Perceived Argument Strength. Two-way ANOVA (culture argument strength) showed a significant main effect of argument strength on perceived argument strength \([F(1,257) = 136.919, p < .0001]\) with neither culture main
effect nor interaction effect. This supported the effectiveness of the manipulation of argument strength. The strong argument strength conditions were rated as more believable, more important, and stronger ($M = 5.71$, $SD = 1.12$) than were the weak argument strength conditions ($M = 3.66$, $SD = 1.45$).

**Perceived Source Expertise.** Two-way ANOVA (culture source expertise) showed a significant main effect of source expertise on perceived expertise [$F(2, 255) = 104.20$, $p < .0001$] and a significant interaction effect [$F(2, 255) = 3.309$, $p < .05$], with no main effect of culture. This indicated that the manipulation of source expertise was effective. As desired, the high expert dermatologist endorser was rated as more believable and expert ($M = 6.35$, $SD = 1.15$) than was the moderately expert hairdresser ($M = 5.16$, $SD = 1.33$), who in turn was rated as more believable and expert than was the low expert song composer ($M = 2.95$, $SD = 1.45$). The culture source expertise interaction in this case was not a concern as the three levels of perceived source expertise within each culture differed significantly from each other in the expected direction. For the Canadian sample, the means of the high expert source (dermatologist), moderately expert source (hairdresser), and low expert source (song composer) were 6.33 ($SD = 1.14$), 4.89 ($SD = 0.95$), and 3.44 ($SD = 1.19$), respectively. For the Thai sample, the means of these three sources were 6.35 ($SD = 1.17$), 5.34 ($SD = 1.50$), and 2.79 ($SD = 1.50$), respectively.

**Tests of Hypotheses**

Table 1 shows the mean scores on attitudes toward the brand and purchase intention in each of the experimental condition. Following this, Figures 1 and 2 plot these cell means for easy comparisons.

The hypotheses involved the relative importance weight of the source expertise and argument strength of the message in persuasion between a high power distance, high uncertainty avoidance, and collectivist culture and a low power distance, low uncertainty avoidance, and individualist culture. These hypotheses were therefore best addressed by multiple regression analyses, with dummy coding of the non-metric independent variables as follows. First, for culture, Thai = 0 and Canadian = 1. Second, for argument strength, weak = 0 and strong = 1. Third, two dummy variables represented the three levels of source expertise (SEHigh = 1 and SEMod = 0 represented the high expertise condition; SEHigh = 0 and SEMod = 1 represented the moderate expertise condition; and SEHigh = 0 and SEMod = 0 represented the low expertise condition). Five two-way interactions (culture argument strength, culture SEHigh, culture SEMod, argument strength SEHigh, and argument strength SEMod) and two three-way interactions (culture argument strength SEHigh, and culture argument strength SEMod) were included in the model. All these independent variables, as
### TABLE 1. Cell Means of Attitudes Toward the Brand and Purchase Intention

<table>
<thead>
<tr>
<th>Argument strength</th>
<th>Source</th>
<th>Attitudes toward the brand</th>
<th>Purchase intention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td><strong>Canadian sample</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weak Low</td>
<td>4.77</td>
<td>0.70</td>
<td>13</td>
</tr>
<tr>
<td>Moderate</td>
<td>5.21</td>
<td>0.63</td>
<td>17</td>
</tr>
<tr>
<td>High</td>
<td>5.25</td>
<td>1.11</td>
<td>9</td>
</tr>
<tr>
<td>Strong Low</td>
<td>6.29</td>
<td>1.21</td>
<td>12</td>
</tr>
<tr>
<td>Moderate</td>
<td>6.20</td>
<td>1.09</td>
<td>14</td>
</tr>
<tr>
<td>High</td>
<td>6.45</td>
<td>1.14</td>
<td>11</td>
</tr>
<tr>
<td><strong>Thai sample</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weak Low</td>
<td>4.27</td>
<td>1.46</td>
<td>47</td>
</tr>
<tr>
<td>Moderate</td>
<td>4.20</td>
<td>1.37</td>
<td>19</td>
</tr>
<tr>
<td>High</td>
<td>4.77</td>
<td>1.08</td>
<td>28</td>
</tr>
<tr>
<td>Strong Low</td>
<td>5.61</td>
<td>1.10</td>
<td>28</td>
</tr>
<tr>
<td>Moderate</td>
<td>5.93</td>
<td>1.03</td>
<td>30</td>
</tr>
<tr>
<td>High</td>
<td>6.13</td>
<td>1.06</td>
<td>33</td>
</tr>
</tbody>
</table>

### FIGURE 1. Group Means of Attitudes Toward the Brand
well as involvement, were input as predictors in the stepwise multiple regression analyses done separately for attitudes toward the brand and purchase intention. Table 2 reports the results.

**Main Effects.** Argument strength was a significant predictor of attitudes toward the brand ($\beta = .510$, $p < .001$) and purchase intention ($\beta = .455$, $p < .001$). That is, the stronger arguments resulted in more favorable responses than did the weak ones.

SEHigh (the dummy variable representing the high expert source), as compared with the low expert source, was a significant predictor of attitudes toward the brand ($\beta = .128$, $p < .05$) but not purchase intention. The positive coefficient indicated that the high expert source elicited more favorable attitudes toward the brand than did the low expert source.

Culture was a significant predictor of attitudes toward the brand ($\beta = .187$, $p < .001$). The positive coefficient indicated that Canadian participants had more favorable attitudes toward the brand than did Thais. Involvement did not emerge as a significant predictor of any dependent variable and thus was not included in further analyses.

**Interactions with Culture.** Of particular importance to this study are the interaction effects between culture and the other independent variables. Specifically, the hypotheses predicted that culture would moderate the effect of source expertise and argument strength on persuasion. The significant culture argument strength interaction indicates that the effect of argument strength on attitudes toward the brand differs across cultures.
TABLE 2. The Final Models of the Stepwise Multiple Regressions of the Pooled Canadian and Thai Data (n = 261)

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variable</th>
<th>B</th>
<th>SE B</th>
<th>Adjusted $R^2$ of the Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudes toward the brand</td>
<td>Argument strength</td>
<td>1.397</td>
<td>.142</td>
<td>.510*** .309***</td>
</tr>
<tr>
<td></td>
<td>Culture</td>
<td>0.564</td>
<td>.156</td>
<td>.187***</td>
</tr>
<tr>
<td></td>
<td>SEHigh</td>
<td>0.380</td>
<td>.153</td>
<td>.128*</td>
</tr>
<tr>
<td>Purchase intention</td>
<td>Argument strength</td>
<td>1.975</td>
<td>.250</td>
<td>.455*** .189***</td>
</tr>
<tr>
<td></td>
<td>Culture</td>
<td>1.204</td>
<td>.554</td>
<td>.125*</td>
</tr>
<tr>
<td></td>
<td>Argument strength</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>x SEHigh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>x SEMod</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05.  ***p < .001.

The moderately expert source (interaction effect ($\beta = .125, p < .05$) on purchase intention in Table 2 indicated the existence of such moderation.

In order to understand the interaction better, it was necessary to conduct regressions by culture as follow-up tests. These were done for both dependent variables because the hypotheses specified, a priori, that the weight of source expertise and argument strength will differ between high power distance, high uncertainty avoidance, and collectivist cultures and low power distance, low uncertainty avoidance, and individualist cultures. This time, the variables input as predictors in the stepwise regressions for each culture consisted of argument strength, SEHigh, SEMod, argument strength $\times$ SEHigh, and argument strength $\times$ SEMod. Table 3 shows the results.

Table 3 reveals that for Canadian participants, the significant predictors of purchase intention were argument strength ($\beta = .565, p < .001$) and argument strength $\times$ SEMod interaction ($\beta = .260, p < .05$). This means that the effect of source expertise on purchase intention depended on the levels of argument strength, and vice versa. The negative coefficient of this interaction can be understood by looking at Figure 2, which shows that for Canadians, the strong arguments endorsed by the moderately expert source actually resulted in lower purchase intention than did the strong arguments endorsed by the low expert source ($p < .05$). The strong argument conditions elicited higher purchase intention than did the weak argument conditions for the high expert source ($p < .01$) and the low expert source ($p < .001$).

For Thais, the only significant predictor of purchase intention was argument strength ($\beta = .421, p < .05$). That is, for all the three sources, the strong arguments induced higher purchase intention than did the weak arguments ($p < .001$ for the high and the moderately expert sources, $p < .01$ for the low expert source). The larger coefficient of argument strength in the Canadian
TABLE 3. The Final Models of the Stepwise Multiple Regressions by Culture

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variable</th>
<th>B</th>
<th>SE B</th>
<th>Adjusted $R^2$ of the Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Canadian sample (n = 76)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes toward the brand</td>
<td>Argument strength</td>
<td>1.234</td>
<td>.221</td>
<td>.544***</td>
</tr>
<tr>
<td>Purchase intention</td>
<td>Argument strength</td>
<td>2.260</td>
<td>.466</td>
<td>.565***</td>
</tr>
<tr>
<td></td>
<td>Argument strength x SEMod</td>
<td>1.339</td>
<td>.601</td>
<td>.260*</td>
</tr>
<tr>
<td><strong>Thai sample (n = 185)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes toward the brand</td>
<td>Argument strength</td>
<td>1.471</td>
<td>.178</td>
<td>.516***</td>
</tr>
<tr>
<td></td>
<td>SEHigh</td>
<td>0.437</td>
<td>.189</td>
<td>.144*</td>
</tr>
<tr>
<td>Purchase intention</td>
<td>Argument strength</td>
<td>1.879</td>
<td>.299</td>
<td>.421***</td>
</tr>
</tbody>
</table>

*p < .05.  **p < .001.

culture (.565 for the Canadian versus .421 for the Thai culture) supported H2 that individuals from low power distance, low uncertainty avoidance, and individualist cultures (i.e., Canadians) will be more influenced by argument strength than will individuals from high power distance, high uncertainty avoidance, and collectivist cultures (i.e., Thais).

Additionally, the regressions by culture in Table 3 show that for Thai participants, both SEHigh ($= .144$, $p < .05$) and argument strength ($= .516$, $p < .001$) were significant predictors of attitudes toward the brand. For all the three sources, the strong arguments induced more favorable attitudes toward the brand than did the weak arguments ($p < .001$). However, for Canadians, only argument strength ($= .544$, $p < .001$) was the significant predictor of attitudes toward the brand. For all the three sources, the strong arguments induced more favorable attitudes toward the brand than did the weak arguments ($p < .01$ for the high and the moderately expert source, $p < .001$ for the low expert source). These results supported H1 that individuals from high power distance, high uncertainty avoidance, and collectivist cultures (i.e., Thais) will be more influenced by source expertise than will individuals from low power distance, low uncertainty avoidance, and individualist cultures (i.e., Canadians). The larger coefficient of argument strength in the Canadian culture also supported H2.
DISCUSSION

The Elaboration Likelihood Model (ELM) proposes that, with respect to the source characteristics (Petty and Cacioppo 1984), when recipients are either unmotivated or unable to evaluate the arguments in the message, a positive source tends to enhance persuasion, regardless of the argument strength. On the other hand, when recipients are highly motivated or able to process the arguments, strong arguments are more persuasive than are weak ones, regardless of the source. Lastly, when recipients are moderately motivated or able to process the arguments, they seem to use various cues in the persuasion context, including source factors, to determine how much they think about the message. A source cue that enhances thinking will increase persuasion if the arguments are strong, but will decrease persuasion if the arguments are weak.

Building on the ELM, this study introduces the role of cultural difference. In particular, this study hypothesizes that in advertising contexts, recipients from a high power distance, high uncertainty avoidance, and collectivist culture (i.e., Thais) will be more influenced by source expertise than will those from a low power distance, low uncertainty avoidance, and individualist culture (i.e., Canadians). This prediction receives support with respect to attitudes toward the brand. The results highlight culture as a moderator of the impact of source expertise on persuasion, but these differences cannot be attributed to specific dimensions of culture. Because the Thai culture differs from the Canadian culture on the dimensions of individualism-collectivism, power distance, and uncertainty avoidance, these differences could be attributed to each or all these dimensions. Nevertheless, taken together, the theoretical support and the results from this study suggest that source expertise tends to have a greater impact on persuasion in high power distance, high uncertainty avoidance, and collectivist cultures than in low power distance, low uncertainty avoidance, and individualist cultures.

The results from the cross-cultural samples in this study provide a more convincing evidence of Aaker and Maheswaran’s (1997) conclusion about the greater cue diagnosticity of source effects in the collectivist Hong Kong culture. Specifically, this study finds the cue diagnosticity of source expertise to be greater in the Thai culture than in the Canadian culture.

This study also postulates that individuals from a low power distance, low uncertainty avoidance, and individualist culture (i.e., Canadians) will be more influenced by argument strength than will those from a high power distance, high uncertainty avoidance, and collectivist culture (i.e., Thais). The results on attitudes toward the brand and purchase intention support this hypothesis. That is, argument strength has more explanatory power in the Canadian than in the Thai data. This reveals that culture is also a moderator of the influence of message argument strength on persuasion. Particularly, these
findings suggest, while noting the previously identified caveat, that argument strength tends to have a greater effect on persuasion in low power distance, low uncertainty avoidance, and individualist cultures than in high power distance, high uncertainty avoidance, and collectivist cultures. Another important finding in this study is that in both the Thai and Canadian cultures, stronger message arguments lead to more favorable attitudes toward the brand and purchase intention.

The finding that, for the Canadian sample, the moderately expert source has a negative effect relative to the low expert source on purchase intention when the arguments are strong is somewhat hard to explain. One possible explanation that the manipulations do not work as intended for the Canadian sample can be ruled out because the manipulation checks indicate that the manipulations are successful. A more plausible explanation, which is consistent with the ELM, is that the song composer (low expert source) cue might have increased participants’ interest in and thus motivation to process the arguments (relative to the hairdresser—a moderately expert source cue). According to the ELM, as motivation increases, peripheral cues (such as source characteristics) no longer directly affect persuasion. Instead, these cues shift toward increasing the processing of central cues (argument strength). The result of this would be that the song composer (low expert source) turns out to be more persuasive than is the hairdresser (moderately expert source) simply because participants’ motivation to process the strong arguments is greater.

Limitations and Directions for Future Research

This research uses Canadian and Thai participants to operationalize three different dimensions of culture simultaneously. It therefore makes it impossible to disentangle the effects of power distance, uncertainty avoidance, and individualism–collectivism. Future research should build on this study’s findings, which implicate culture as an important factor that ought to be considered when applying the ELM to the design of advertising messages. It is important to understand which specific dimension(s) of culture is (are) responsible for the effect(s). Research designs that incorporate more than two cultures may be useful to separate the effect of each cultural dimension.

Alternatively, comparing cultures that do not simultaneously co-vary on the three dimensions would also be helpful. For example, Thailand and Singapore have identical scores (i.e., 20) on individualism but have significantly different scores on uncertainty avoidance [Singapore ranked first with a score of eight whereas Thailand ranked 30th with a score of 64 (Hofstede 1991)]. Using participants from these two countries may allow a more specific test of the effect of the uncertainty avoidance dimension of culture.

It is somewhat more difficult to disentangle power distance and individu-
alism-collectivism. In operationalizing cultural differences, based on Hofstede’s dimensions, it is difficult to find cultures that do not co-vary on these two dimensions. For instance, the United States, Canada, New Zealand, the Netherlands, Great Britain, and Australia all score from 80 to 90 on the individualism-collectivism scale and also from 35 to 40 on the power distance scale (Hofstede and Bond 1988).

The use of student subjects is another limitation of this study. While student subjects are adequate for testing the theoretical propositions, it is not possible to be sure that these findings generalize to other groups within these cultures. Future research should examine other types of respondents to determine the robustness of the moderating effect of culture on persuasion. These may include, for example, homemakers, retirees, managers, blue-collar workers, and children.

This research looks at one type of source characteristic, that is, source expertise. Celebrity endorsers are commonly used in advertising. Future research could extend this to celebrity endorsers who derive their influence from fame rather than from expertise in the area.

Due to the necessary conditions of product types discussed in the experimental product section, this study uses a product of moderate involvement to test the hypothesized relationships. Consumers’ responses to the effect of source expertise for products of very high or very low involvement may differ from the findings of this study. Future research might want to address this important area.

Finally, the incorporation of the interaction terms into the regression models raises the potential impact of multicollinearity among the old variables and the new variables representing the interaction. However, through the use of stepwise regressions, only significant predictors and interaction terms remain in the final equations. So, this issue is not a concern.

**Theoretical and Managerial Contributions**

The major theoretical contribution of this study is that it introduces cultural difference as a moderator in the ELM. Very few studies, if any, have incorporated culture as a theoretical variable in the ELM in a way that allows *simultaneous comparisons of different cultures* (that is, in a way that includes culture as one of the independent variables). Specific cultures are of theoretical interests only when they are used to operationalize dimensions of cultural differences (Foschi and Hales 1979). This research uses Canadian and Thai cultures to operationalize the cultural dimensions of power distance, uncertainty avoidance, and individualism-collectivism. It posits and has found that these cultural dimensions affect the relative weight of source expertise and argument strength in persuasion. This research also provides evidence for the suggestion in Aaker and Maheswaran (1997, p. 327) that “... heuristic cues
such as . . . source credibility may be more diagnostic in collectivist compared to individualist cultures.”

Furthermore, this research sheds light on the issues practitioners need to consider when deciding on whether to standardize or adapt the advertising messages for an international or global audience. Much research has looked into the issue of standardizing versus adapting international advertising (Agrawal 1995; Shoham 1995, 1996). In particular, Shoham(1995, p. 101-102) concluded in the review of the literature on marketing standardization/adaptation: “In sum, the empirical evidence suggests that markets are not homogeneous at this time.” Similarly, in one of the few studies that examine the effectiveness of advertising standardization/adaptation from the point of view of consumers, adaptation was shown to improve recall and recognition of commercials although not sales (Shoham 1996).

The results of this current study lend further support to the need for practitioners to consider cross-cultural differences when planning advertising messages. Practitioners may be either under-utilizing or over-utilizing source endorsements, depending on the culture in question. The results in this study suggest that this type of persuasion strategy is probably more effective in high power distance, high uncertainty avoidance, and collectivist cultures than in low power distance, low uncertainty avoidance, and individualist ones. The most direct practical implication is that practitioners should evaluate whether there is an opportunity to use source endorsements to a greater degree in the target culture. In addition, care must be taken when using global campaigns that employ source expertise as an executional component to ensure that these approaches are sufficiently effective in low power distance, low uncertainty avoidance, and individualist cultures.

The finding in this study—that in both the Thai (high power distance, high uncertainty avoidance, and collectivist) and Canadian (low power distance, low uncertainty avoidance, and individualist) cultures, stronger message arguments bring about more favorable responses than do weaker ones—suggests that efforts should be spent on developing advertisements with strong, relevant, and believable arguments. These can only be achieved through careful consumer tests.

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