



Brand origin recognition accuracy: its antecedents and consumers' cognitive limitations

Saeed Samiee¹,
Terence A Shimp² and
Subhash Sharma²

¹University of Tulsa, USA; ²University of South Carolina, USA

Correspondence:

Dr S Samiee, College of Business
Administration, The University of Tulsa,
600 S. College Avenue, Tulsa,
OK 74104-3189, USA.
Tel: +1 918 631 2019;
Fax: +1 918 631 2083;
E-mail: samiee@utulsa.edu

Abstract

An ever-growing literature has reported consumer bias toward national origins of products, and has explored factors that moderate such bias. Researchers have assumed, if only tacitly, that consumers are knowledgeable of brand origins, and that this knowledge is a significant influence that drives judgments of product quality, brand attitudes, and choice behavior in the marketplace. Using categorization theory and attribute diagnosticity as the theoretical foundation, our research reveals that consumers actually have only modest knowledge of the national origins of brands, and that American consumers' proficiency at recognizing foreign brand origins is predicted by variables such as socioeconomic status, past international travel, foreign language skills, and gender. In the second of two studies, we determined that brand origin recognition is based largely on consumers' associations of brand names with languages that suggest country origins. These studies ultimately lead us to conclude that past research has inflated the influence that country of origin information has on consumers' product judgments and behavior and its importance in managerial and public policy decisions.

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Introduction

This research conceptualizes, measures, and tests a concept referred to as *brand origin recognition accuracy*. Our argument, in contradiction to the tacit assumption in the country of origin (CO) literature, is that consumers have limited knowledge of the origins of brands, and that a brand's origin probably is not as important to consumers as the literature insinuates. Rather than conducting yet another experiment to place this issue to the test, we decided to measure consumers' ability to recognize the COs of a sampling of mostly well-known and widely distributed brands that have their origins both in the United States and in countries that are major participants in the American marketplace.

The rationale and justification for our research can best be appreciated by laying out a series of important and interconnected premises that serve to structure our investigation. First, brand marketing is dedicated largely toward enhancing brand equity, which is generally regarded as including brand awareness and

image components (Keller, 1993). Image consists of consumers' knowledge and beliefs about a brand's various product and non-product attributes. Brand origin is one such cue that plays a potentially important role in determining a brand's image (cf. Thakor and Lavack, 2003).

Second, globalization and the formation of global marketing strategies are dependent on the development of global brands that ideally carry the same message and position in various intermarket segments (i.e., brand standardization) (e.g., Meffert and Althans, 1986; Rutigliano, 1986; Hill and James, 1990). Consistent with this practice, marketing scholars have exhibited much interest in exploring standardized international marketing programs and global marketing strategies (e.g., Jain, 1989; Samiee and Roth, 1992; Hewett and Bearden, 2001), in which global brands play a pivotal role. The CO literature considers product origin a critical product-related factor, and its findings have tacitly challenged the implementation of standardized international marketing programs.

Third, the CO literature also alerts us to the importance of such extrinsic cues as brand origin in product associations (see, for example, Bilkey and Nes, 1982; Keller, 1998; Thakor and Lavack, 2003). Thus branding, marketing standardization, and CO literatures stress the importance of scholarly inquiry involving brand origin.

Fourth, researchers interested in global marketing have assumed that a brand's CO is an important factor underlying brand equity, consumer judgments, and choice processes. Indeed, researchers have provided evidence that CO is an important determinant of consumer attitudes, purchase intentions, and behavior.¹ It is important to note, however, that this evidence is based largely on experimental research in which the brand origins of mostly hypothetical brands have been manipulated in single- or multi-factor experimental paradigms. Such designs, it can be argued, tend to elevate brand origin salience compared with information processing under naturalistic circumstances, where a brand's origin is just one piece of information among an array of data available for consumers to possibly acquire from point of purchase or retrieve from memories. Hence, the importance of brand origin information compared with actual consumer behavior situations has likely been inflated in experimental research (cf. Peterson and Jolibert, 1995; Lee and Ganesh, 1999).

If brand origin plays a salient role in consumers' everyday judgments and decision-making pro-

cesses, it would be expected that consumers would possess reasonably accurate abilities to recognize brands' COs. To make an analogy, if it is important and functional for individuals to know how to spell words, it would be expected that they would have stored in memory knowledge of correct spellings. A test of spelling ability would thus reveal whether such knowledge is important to people. Poor ability to spell common words would indicate that such ability is not functional because people apparently operate under the assumption that access to dictionaries suffices or that correct word spellings are unimportant. (Intellectual deficits represent another possibility, but this is immaterial to the present analogy.) Likewise, if ability to recognize brand origins truly were important, it would be expected that consumers would know the COs of a sampling of brands from the universe of available domestic and foreign brands.² It is noteworthy that in the US, the site of the present study, the federal labeling laws require that all imported products be clearly marked with their origins, and thus this information is available for consumers who seek it.

Some international brands have been able to mask their origins. For example, Parker (pens), Singer (sewing machines), and Kodak are thought to be of local origin in multiple countries. Lower levels of correct brand origin recognition suggest that either (1) a brand is perceived to be manufactured and available in many countries or (2) brand origin is inconsequential in the choice process. Under these conditions, a brand must compete along the dimensions for which the firm has better control (e.g., quality). On the other hand, higher levels of correct brand origin recognition demonstrate the saliency of brand origin to consumers, which in turn reinforces the need to develop international marketing and global strategies that are sensitive to and incorporate this information. If this information carries a negative or positive bias, the CO literature stresses the need to adjust international marketing plans.

This article consists of two studies. Study 1 develops a measure of brand origin recognition accuracy (referred to hereafter as BORA), proposes and tests a model that accounts for the variability in BORA, and discusses its importance and implications. Study 2 examines the prospect that most brand origin knowledge tends to be surface-based information and is determined in large part by consumers' association of brand names with various languages. The paper concludes with a



general discussion and managerial implications, future research prospects, the study's limitations.

Conceptualizing BORA: a categorization and diagnosticity perspective

Inasmuch as BORA involves a form of knowledge that consumers potentially have stored in memory and can retrieve as input when forming brand-related judgments and making choices, a variety of theoretical frameworks are applicable to understanding the BORA concept. These include: brand equity theory from a consumer knowledge perspective (e.g., Keller, 1993, 2003); categorization theory (e.g., Rosch, 1978; Maheswaran, 1994); and the expansive literature on consumer learning, memory formation, and information search and retrieval processes (e.g., Bettman, 1979). Among these, object categorization and attribute diagnosticity have been used in similar contexts, and therefore they represent an appropriate theoretical basis for the present study. In the paragraphs that follow, we first explore conditions under which individuals may store and access brand origin information, and then examine categorization and diagnosticity within the context of the present study.

Brand knowledge represents the personal meaning about a brand that consumers have stored in memory, and includes all descriptive and evaluative brand-related information (Keller, 2003). In addition to basic brand awareness, this information includes brand attributes (e.g., this watch brand is of Swiss origin). Such knowledge can be conveyed by marketers in their efforts to link brands with positive country images, or can be acquired by the consumer independently of marketers' conveyances as a matter of marketplace experiences and word-of-mouth flows or first-hand brand information acquisition. Regardless of the source, for any given brand, the consumer may or may not know its CO, or may even confuse the brand as being from a country other than its actual origin. Overall, four scenarios pertaining to BORA are possible.

First, it is likely that accurate brand origin information is held in memory, and consumers associate brands with their respective countries. Brand origin is an objective and, at least in the US, relatively transparent information cue. If brand origin plays a salient role in purchase decisions, as argued in the CO literature, the rational consumer would be expected to seek or possess accurate brand origin information.

A second prospect is that consumers might be entirely oblivious to origins of brands, in which

case brand-origin-related information plays no role in their choice behavior. Although plausible, the overwhelming evidence offered by the CO literature appears to suggest otherwise. On the other hand, if consumers' BORA is shown to be generally low, then the arguments reported in the CO literature are considerably weakened.

A third possibility is that brand origin may be merely perceived (but inaccurate), and that this information is used in consumers' evaluative processes. If the conveyance of inaccurate brand origin information is intentional, and this information is uniformly held by consumers – for example, a US firm selecting a French name as its brand – it is presumably attributable to the marketer's proactive and successful branding and positioning strategies that include association with a *desirable* source country. A less ideal situation is where the targeted segment associates the brand with an incorrect but desirable origin, by chance or because of various unplanned activities or cues. This branding strategy is deployed by some firms, but there is little empirical evidence suggesting that it leads consumers to actually believe that such brands as LeSueur or DiGiorno food products are indeed from France and Italy, respectively. In the absence of empirical evidence, such associations represent surface-level artificial connections for most consumers that may have no influence in choice behavior.

Finally, the most difficult and chaotic brand (mis)management situation is where consumers associate the brand with a variety of origins, and this information is used in their purchase decisions. Diffused source-country designations represent images that vary across consumer groups and are potentially undesirable and inconsistent with the firm's marketing strategy, particularly if leading brands in the category are linked to a specific country image.

These scenarios point collectively to the academic and managerial importance of developing a better understanding of BORA. Toward this end, we need to briefly explore the psychological process of object categorization and attribute diagnosticity.

Categorization, generally speaking, entails the activity of assigning objects to groups. Marketing and consumer researchers have actively investigated categorization processes (e.g., Sujon, 1985; Meyers-Levy and Tybout, 1989), including applications in the CO domain (e.g., Alden *et al.*, 1993; Maheswaran, 1994; Lee and Ganesh, 1999). Particularized to the BORA concept, categorization involves the consumer's somewhat effortful mental

task of assigning a brand to a specific country category or to a more *basic* – that is, less finely discriminated – category (Rosch *et al.*, 1976; Mervis and Rosch, 1981; Fiske, 1982; Alba and Hutchinson, 1987). Examples of non-finely discriminated CO categories would include perceptions of a brand as being ‘of foreign origin’, ‘made somewhere in Asia’, or ‘not from here’.

The fundamental categorization issue related to BORA is one of how and why consumers learn to discriminate brands as originating from specific countries. In some instances, consumers learn to categorize brands as belonging to particular countries because that information is known to virtually everyone who is reasonably alert. In the automobile category, for example, brands (automobile models) are effectively ‘stamped’ with their country affiliation. In many other product categories, perhaps especially those involving inexpensive consumer packaged goods, CO information is less conspicuous and thus variable in its recognition by consumers. One major reason why consumers may not possess accurate information about brand origins is that such information often is not *diagnostic* for making decisions, and thus is not accessible in memory (Feldman and Lynch, 1988). (A particular product attribute is diagnostic to the extent that it is sufficient for arriving at a solution for the judgment task facing a consumer, such as choosing a brand in a particular product category.) A brand’s CO may be highly diagnostic information for choosing an automobile or other technological or crafted product, because the CO conveys additional information about product quality and other purchase-relevant ascriptions, but CO information may be entirely non-diagnostic for inexpensive packaged goods, where it is less likely that country superiority is attached to a product category.

In addition to product categories varying in the degree to which CO information is diagnostic, consumers are themselves variable in terms of how much importance they place on CO information. For example, brand origin information is more diagnostic for highly ethnocentric consumers (Shimp and Sharma, 1987) than for those who are only moderate or low in this trait. Likewise, consumers higher in socioeconomic status may regard a brand’s CO as more diagnostic in decision-making than lower socioeconomic consumers whose income levels necessitate their focusing more on functional considerations such as price and value. These points are subsequently fleshed out when specific hypotheses are presented.

We conclude, therefore, that brand origin information is likely to be non-diagnostic for consumers when making purchase decisions in many product categories, especially those involving inexpensive, frequently purchased items. Inasmuch as CO information is not diagnostic, it serves little useful function for consumers to possess accurate memorial representations of country identities for most brands available in the marketplace (cf. Bettman, 1979). Hence, it is our general expectation that BORA is variable among consumers and relatively low on average. Discussion turns now to the measurement of BORA.

Measuring BORA

Brand origin can be thought of as the country a brand is associated with or the headquarters of where the brand’s owner is perceived to be located, regardless of where it is manufactured (cf. Johansson *et al.*, 1985; Ahmed and d’Astous, 1995; Thakor and Kohli, 1996; Kim and Chung, 1997; Thakor and Lavack, 2003). The attribution of brand origin to the headquarters location of the parent firm is an appealing perspective because, even though some products are produced and sourced from multiple locations, they represent a single image and home country identity. Additionally, Papadopoulos (1993) points out that global firms often position their brands with respect to their national origins. Sony and Toyota are Japanese brands regardless of where they are made; likewise, Nike is indubitably American even though the firm manufactures no shoes in the US. Such an association has also been empirically supported (Ratliff, 1989; Kim and Chung, 1997).

In the spirit of generalizability theory (e.g., Rentz, 1987; Shavelson and Webb, 1991), measuring consumers’ ability to recognize brand origins required that we select a sample of brands from among the thousands available to American consumers. Assuredly, no one sample of any reasonable size could be considered truly representative, just as a finite sample of words would never be regarded as fully representative in a test of spelling ability. Our selection of brand names was guided, nonetheless, by several considerations. First, given the objective of measuring knowledge of brand origins, the brands selected had to be from both US and foreign origins. Second, to provide balance, foreign brands had to be distributed across a reasonably large number of countries while nevertheless placing priority on brand appropriateness (to US consumers) rather than extending the number of coun-



tries for the mere sake of size. Most developing and emerging nations do not possess brands that are widely publicized in the US, and therefore the great majority of brands chosen necessarily originated from developed countries. Third, it was desirable to select brands that represent both male and female users and span various product categories, including both durable and non-durable items. Fourth, brands should ideally represent varied levels of functionality and price. Finally, several foreign-sounding US brands (e.g., LeSueur and Oscar de Lorenta) and anglicized foreign brands (e.g., Sharp, GoldStar) were selected so as to push the envelope in examining the accuracy of consumers' BORA (cf. Leclerc *et al.*, 1994).

Using these criteria, we selected an initial group of 144 brands and then reduced that number to a smaller set through a two-stage process. In the initial phase, six faculty members who were familiar with CO research were advised to review the original list and identify any unusual or outlier brands. Then, a sample of 25 American business graduate students, all of whom spoke at least two languages and had lived abroad, were asked to complete the form. Specific comments regarding the nature of the questionnaire, its clarity, purpose, sequencing, and layout were solicited following their completion of the task. Brands that could not be identified by a large proportion of respondents were eliminated. Brands were also excluded in situations where their origin was diffused among several nations.

A final set of 84 brands was selected (see Appendix A1). The set consists of 40 brands from the United States and 44 brands from foreign countries (i.e., England, France, Germany, Italy, Japan, and Switzerland). These 84 brands represent 10 product categories: appliances (small and large), apparel items, beverages (alcoholic and non-alcoholic), cameras and films, consumer electronics (audio, video, personal computers, etc.), health and beauty aids, packaged foods, shoes, sports equipment, and watches.

The 84 brands constitute a selection of American and foreign brands that are available to most American consumers in department stores, mass merchandise outlets, supermarkets, and other common retail venues. As a measure of BORA, the pool of 84 brands can be considered analogous to a vocabulary test wherein a subset of words is sampled from the vast array of available words. Upon encountering the name Adidas, for example, the knowledgeable respondent would be expected

to recognize this brand's German origin. Likewise, Bic should be recognized for its French origin, Benetton for its Italian base, Keds for the United States, and so forth. A perfectly knowledgeable respondent would make correct registrations for all 84 brands and thus receive a perfect score of 100%, which would contrast with the entirely clueless respondent whose score would approach zero. Measured scores across respondents thus range between 0 and 100%, and are based both on actual knowledge about the sampled brands' COs and on incidental guessing.

To assess the reliability of the BORA measure, a group of 79 university students was asked to identify the brand origins of the 84 brands on two occasions separated by a full month. The test-retest correlation coefficient ($r=0.72$, $P<0.001$) reflects a high level of concurrence, and implicates the likelihood that BORA was measured reliably in the national survey that is detailed subsequently.

Predicting variability in BORA scores

It initially is important that we distinguish two forms of BORA: recognition accuracy for domestic brands ($BORA_{US}$) and for foreign brands ($BORA_F$). It is reasonable to expect that American consumers would have a greater ability in recognizing that domestic brands originate in the US *vs* identifying the country base of foreign brands. Based on an extensive literature review, and in general conformity with empirical applications of categorization theory (e.g., Sujan and Tybout, 1988; John and Sujan, 1990; Tsui and Egan, 1992; Toh and DeNisi, 2003), four groups of predictors are expected to account for variability in respondents' BORA scores: socioeconomic characteristics, international experience factors, demographic variables, and ethnocentric tendencies. As we shall demonstrate in the following sections, however, we do not necessarily expect these variables to perform equally well in explaining variability in both $BORA_{US}$ and $BORA_F$.

The branding literature suggests that brand familiarity influences brand-based knowledge. Within the context of the present study, this implies that a consumer familiar with a brand is more likely to be familiar with its origin. It is thus appropriate to examine BORA scores in light of brand familiarity with the expectation that it will heighten consumers' knowledge of brand origins. However, given that brand origin information is low in diagnosticity value and, accordingly, has been reported to generally lack salience for consumers (cf. Hugstad and Durr, 1986), the ratio of

BORA_{US} to BORA_F is expected to remain the same. In general, a lower BORA score for foreign brands *vis-à-vis* US brands is anticipated.

Socioeconomic characteristics

With education and income as indicators of socioeconomic status, it was expected that more educated and higher-income consumers would demonstrate higher BORA scores. Research has shown that higher-income consumers hold relatively more favorable attitudes toward foreign products (Schooler, 1971; Dornoff *et al.*, 1974; Wall and Heslop, 1986). Likewise, a higher level of education is associated with a preference for foreign goods (Anderson and Cunningham, 1972; Johansson *et al.*, 1985; Wall and Heslop, 1986). Moreover, as previously mentioned, lower socioeconomic consumers should find brand origin information less diagnostic than price and value attributes; accordingly, brand origin information should be less accessible in their memories in comparison with higher socioeconomic consumers. Hypothesis 1 formalizes this expectation.

H1: Consumers higher in socioeconomic status should reflect higher levels of both BORA_{US} and BORA_F.

International experience

International travel and foreign language expertise are relevant indicators of international experience. We anticipate that socioeconomic status will have both direct and mediated (via international experience) effects on brand origin knowledge. Several studies have revealed a relation between international travel experience and income level (Barry and O'Hagan, 1972; Uysal and Crompton, 1984; Papadopoulos and Witt, 1985; Butterfield *et al.*, 1998). Additionally, Rounds (1988) reported that 86% of college graduates have traveled abroad as compared with 62% of those with a high school diploma. Moreover, 84% of those with household incomes exceeding \$50,000 have international travel experience as compared with 59% of those with annual incomes under \$10,000.³ Finally, knowledge of foreign languages, even if passively acquired (e.g., non-US natives or their more immediate descendants), heightens individual interest and knowledge in international/foreign matters. It thus is reasonable to expect a relationship between socioeconomic measures and international experience within the context of BORA.

H2a: Consumers' higher socioeconomic status is positively related to higher levels of international experience.

Likewise, it is expected that consumers who are able to read or speak other languages would exhibit higher BORA_F scores. Consumers' international experiences are potential indicators of their tendency to belong to market segments to which global brands are marketed (e.g., Dawar *et al.*, 1996). In the global marketplace, there are opportunities for consumers to develop greater familiarity with products and brands through both voluntary and involuntary exposure to information. International travel, for example, has been shown to enhance perceptions toward foreign products (Schellinck, 1989; Wall *et al.*, 1991) and, hence, origins of brand. A reasonable expectation, therefore, is that consumers who have engaged in international travel for work or pleasure should possess greater knowledge of foreign brands (BORA_F) than their less cosmopolitan counterparts. Stated formally,

H2b: Consumers who have amassed greater international experiences should manifest higher levels of BORA_F.

Although international experience is expected to correlate positively with BORA_F, we expect consumers to be fairly familiar with US brands regardless of their levels of international experience, and thus the influence of international experience on BORA_{US} should be negligible. Additionally, brands of US origin are more dominant in the market, and for many consumers the expectation of a US origin may be the norm rather than the exception. Therefore,

H2c: International experience is *not* related to consumers' level of BORA_{US}.

Demographic variables

The importance of consumers' demographic characteristics in this line of inquiry is bolstered by research findings that have demonstrated age and gender to be important indicators of marketplace preferences (e.g., Holbrook and Schindler, 1994). More specifically, CO research also provides important evidence regarding the relevance of age and gender to product knowledge and assessment (e.g., Wall *et al.*, 1991). One might expect older individuals to possess higher BORA due to their greater



experience in the marketplace. Younger consumers tend to be more brand-sensitive and might have enhanced BORA due to greater worldliness. However, research has shown that the use of CO information is inversely related to age (Schellinck, 1989; Wall *et al.*, 1991). These findings offer a direction for consumers' BORA levels with the expectation that younger individuals will be more likely to demonstrate higher levels of BORA. Although our expectation is somewhat equivocal, H3a posits that

H3a: Age is inversely related to consumers' levels of both $BORA_{US}$ and $BORA_F$.

Gender-based differences have been documented in cognitive style research (Foxman *et al.*, 1990) and in other aspects of consumer psychology (e.g., Meyers-Levy, 1988; Meyers-Levy and Maheswaran, 1991). Research from the CO domain demonstrates that men are more prone to be biased against foreign products (e.g., Schooler, 1971), and that women hold more favorable views of foreign products, even though they have a greater tendency to buy domestic products (Wall and Heslop, 1986). We expect that positive views toward a group of products are more likely to lead to active learning of brand-related information, whereas those holding negative views may largely depend on passive learning and, hence, be less knowledgeable. Again with some equivocation, we propose that

H3b: Women will demonstrate higher levels of both $BORA_{US}$ and $BORA_F$.

Ethnocentric tendencies

Studies have examined relations between consumers' ethnocentric tendencies and various criterion measures pertinent to foreign products (e.g., Shimp and Sharma, 1987; Netemeyer *et al.*, 1991; Sharma *et al.*, 1995; Klein *et al.*, 1998; Klein, 2002). Whereas much of the literature deals with the relationship between ethnocentrism and domestic vs foreign products, the literature examining the relationship between ethnocentric tendencies and brand origin is scant. In general, the consumer ethnocentrism literature suggests that consumers high in ethnocentric tendencies are less accepting of foreign products, and judge them unfavorably. Batra *et al.* (2000) were the first to propose a relationship between ethnocentric tendencies and brand origin. Brand attitude within the context of developing

countries was the central thrust of their investigation. Brand origin information is thus expected to be more diagnostic and accessible for consumers *lower* in ethnocentric tendencies. Hypothesis H4a thus posits that

H4a: Consumers lower in ethnocentric tendencies will exhibit higher levels of $BORA_F$.

Batra *et al.* (2000) reported that ethnocentrism does not moderate brand attitudes toward foreign brands. Additionally, ethnocentrism had no effect toward modifying attitudes toward local brands for domestically oriented people (those admiring local lifestyles compared with foreign ones). Thus, we do not expect ethnocentric tendencies to influence consumers' ability to recognize the origin of domestic brands, as hypothesized in the following hypothesis:

H4b: The level of $BORA_{US}$ is not related to consumers' ethnocentric tendencies.

Study 1: a national survey

A national survey was performed to explore consumers' ability to recognize brand origins and to test the foregoing hypotheses. A subsequent validation study was also undertaken to rule out an alternative explanation for the results from the national survey.

Method

Sample

A survey was mailed to a national sample of adult household members who were drawn from a data bank of individuals holding drivers' licenses. Although the data bank is regularly updated, there are inherent lags between the occurrence of a household move and the acquisition of a driver's license, data entry, and list sale. The agency compiling the list estimates that 20% of names and/or addresses are invalid at any point in time. The accuracy of this estimate has been tested by the compiling agency, and is said to remain reasonably consistent over time.

A random sample of 5000 respondents from all 50 states was targeted. Using the conservative estimate of correct addresses on the list, we thus presume that 4000 questionnaires were correctly addressed but not necessarily delivered to the targeted individuals (cf. Hunt and Vasquez-Parraga, 1993). Overall, 480 usable responses were returned – a

response rate of 12%, which is in line with those of other large-scale surveys (e.g., Dwyer and Welsh, 1985; Anderson *et al.*, 1987; Achrol and Stern, 1988). Analysis of responses by regions of the country indicated no significant difference between the geographic distribution of respondents and those in our sample.

Measures

Two measures, education and income, served as indicators of socioeconomic status. Education was measured by having respondents select one of six categories that reflected the highest level of education they had attained: under 12 years, high school degree, 1–2 years of college or technical school, 3–4 years of college, college graduate, and graduate or professional degree. Income was measured by having respondents indicate their approximate total family income from all sources. A total of 10 response categories included 'under \$15,000' and 'over \$75,000' as end points along with eight intermediate income groups that increased in \$5000 increments. Two items were used as indicators of international experience: the number of countries (other than Canada) that a respondent has visited, and the number of foreign languages that s/he self-reported as being reasonably proficient in speaking, reading, or writing. Age was measured by having respondents assign themselves to the appropriate group using the categories developed by the US Bureau of the Census: under 18, 18–24, 25–34, 35–44, 45–54, 55–64, and 65 or over. Finally, ethnocentric tendency was assessed using Shimp and Sharma's (1987) 17-item CETSCALE.

Questionnaire

Respondents were presented with a questionnaire formatted as a matrix, with the 84 foreign and domestic brands listed down the rows and columns headed with country names. They were instructed to circle for each brand its country origin. Specific countries listed in an alphabetical order were England, France, Germany, Hong Kong, Italy, Japan, Switzerland, and the United States. Although none of the 84 brands was from Hong Kong, this country was included as a foil among the listed countries to allow for the possibility of sheer guessing. 'Not listed' and 'Don't know' were two additional response options.

Results

BORA scores undoubtedly represent a combination of actual knowledge along with error variance due

to guessing. Most respondents would be expected to demonstrate imperfect recognition accuracy. It was found, in fact, that respondents' BORA was modest. Indeed, the average BORA score for all 84 brands was only slightly higher than one-third correct identification ($M=35\%$; $s.d.=15.8\%$). Importantly, the average score for the 44 foreign brands reflected less than one-quarter correct responses ($M_{BORA(F)}=22.3\%$; $s.d.=14.2\%$), whereas respondents correctly identified about one-half of the 40 US brands ($M_{BORA(US)}=49\%$; $s.d.=22.2\%$). The difference between consumers' $BORA_F$ and $BORA_{US}$ was significant (paired $t_{470}=-30.31$; $P=0.000$).

Given the role of product familiarity in the accumulation of product-related experiences and objective knowledge (e.g., Johansson *et al.*, 1985; Alba and Hutchinson, 1987), we also assessed BORA scores adjusted for brand familiarity. Consistent with our *a priori* expectations, these scores were higher ($M_{BORA(US)}=68\%$; $M_{BORA(F)}=33\%$) and, importantly, the ratio of $BORA_{US}$ to $BORA_F$ scores remained about the same as the unadjusted scores. Additionally, from a conceptual viewpoint, in developing a valid measure of spelling ability (see the analogy in Introduction), 'spellers' would be expected to attempt to spell all words on the list regardless of whether they are or are not familiar with them: that is, they would not be allowed to eliminate words for which they self-reported unfamiliarity. Moreover, if product-level experience has an influence on BORA, consumers would be expected to know brand origins of (at least some) brands that they do not favor or would use – as opposed to possessing information only about products that they report as having purchased, used, or somehow experienced. Thus, the use of self-reported familiarity for screening brand origin knowledge is problematic. Therefore, BORA is more appropriately measured based on the full sampling of brands rather than a subset that varies in number from respondent to respondent.⁴

Country-by-country average BORA scores, shown in Table 1, are insightful. Considering, for example, the 10 German brands, it is evident from the main diagonal that only 16.2% of respondents' assignments correctly categorized these brands for their German origination. The off-diagonal entries reveal that 3.2% of the German-brand assignments were associated with England, 1.6% with France, 1.2% with Hong Kong, 1.1% with Italy, and so on. The data in the 'Don't know' and 'Not listed' columns indicate that respondents in nearly 45.6% of the

Table 1 Brand origin recognition accuracy matrix

Brands from	Brands associated with									
	ENG	FRA	GER	HK ^a	ITA	JAP	SWI	USA	NL ^b	DK ^b
England	13.7 ^c	0.8	0.2	0.0	0.0	0.1	0.2	54.1	0.1	30.8
France	1.9 ^d	32.1	2.7	0.2	0.5	0.4	0.7	16.5	0.2	44.8
Germany	3.2	1.6	16.2	1.2	1.1	2.9	1.0	27.2	1.0	44.6
Italy	4.4	2.4	1.3	0.4	20.5	2.0	3.7	7.3	1.6	56.4
Japan	0.8	0.3	1.2	1.7	0.4	42.4	1.4	17.5	0.1	34.2
Switzerland	2.8	11.0	1.9	0.5	1.9	3.2	13.8	12.3	0.3	52.3
USA	1.8	6.8	0.7	1.0	2.1	2.0	0.7	49.0	0.5	34.4

^aThere were no brands from Hong Kong.

^bNL=not listed; DK=don't know.

^cIndicates that 13.7% of the respondents *correctly* associated English brands with England.

^dIndicates that 1.9% of the respondents *incorrectly* associated French brands with England.

cases were unable to assign the German brands to any country – Germany or otherwise. These data reveal, in fact, that a substantial proportion of all brands could not be assigned to any specific country, ranging from 30.9% (England) to 58% (Italy). Indeed, although 49% of the 40 US brands were correctly categorized as being of US origin, over 34% of US brands could not be identified with any country. Japanese brands are second only to the US, with a BORA score of 42.4%. The scores fall precipitously for other origins, ranging from only 13.7 and 13.8% for England and Switzerland, respectively, to 32.1% for France. From these results, it is apparent that consumers, by and large, maintain a low level of BORA.

Measurement properties

A confirmatory factor analysis was used to estimate a three-factor, correlated-factor model, and to assess the measurement properties of socioeconomic status (SES), international experience (IE), and consumer ethnocentric tendencies (CETSCALE). Goodness-of-fit indices suggested an acceptable model fit, with all loadings significant at $P=0.05$.⁵ Discriminant validities of SES, IE, and CETSCALE were assessed using procedures suggested by Bagozzi (1993) and Fornell and Larcker (1981). In accordance with Bagozzi's procedure, discriminant validity for each pair of constructs is established if the difference in the chi-squared of the model in which the correlation between two constructs is estimated freely and the chi-squared of the model in which the correlation of the respective pair of constructs is constrained to 1 is significant. (This difference in chi-squared will have one degree of freedom.) The differences in chi-squares for all pairs

of constructs were significant at $P=0.05$, thus establishing discriminant validity. The procedure suggested by Fornell and Larcker (1981) is more conservative: pairs of constructs have discriminant validity if the shared variance between the two constructs (which is the squared correlation between the two constructs) is lower than the shared variance between each construct and its indicators. This condition was established for all pairs of constructs, thus lending further support for SES, IE, and CETSCALE as distinct constructs.

Coefficient alpha for scales with two items typically is not assessed, and normally the correlation between the two items is examined. The Pearson correlation coefficients between the two items measuring socioeconomic status (SES) and the two items indicating international experience (IE) were 0.40 and 0.31, respectively. These correlation coefficients, although seemingly modest, are in line with recommendations from Clark and Watson (1995), who suggest that interitem correlation coefficients should range between 0.15 and 0.50, and Netemeyer *et al.* (2002), who argue that average interitem correlations exceeding 0.30 are acceptable. Coefficient alpha for the 17-item CETSCALE was 0.96, which is well above the recommended value and is in line with reliabilities for that measure reported in other studies (e.g., Shimp and Sharma, 1987; Netemeyer *et al.*, 1991; Sharma *et al.*, 1995).

Structural model

The structural model depicted in Figure 1 was formulated to test the hypothesized relations. SES and age are modeled as having both direct and mediated (via international experience) effects on

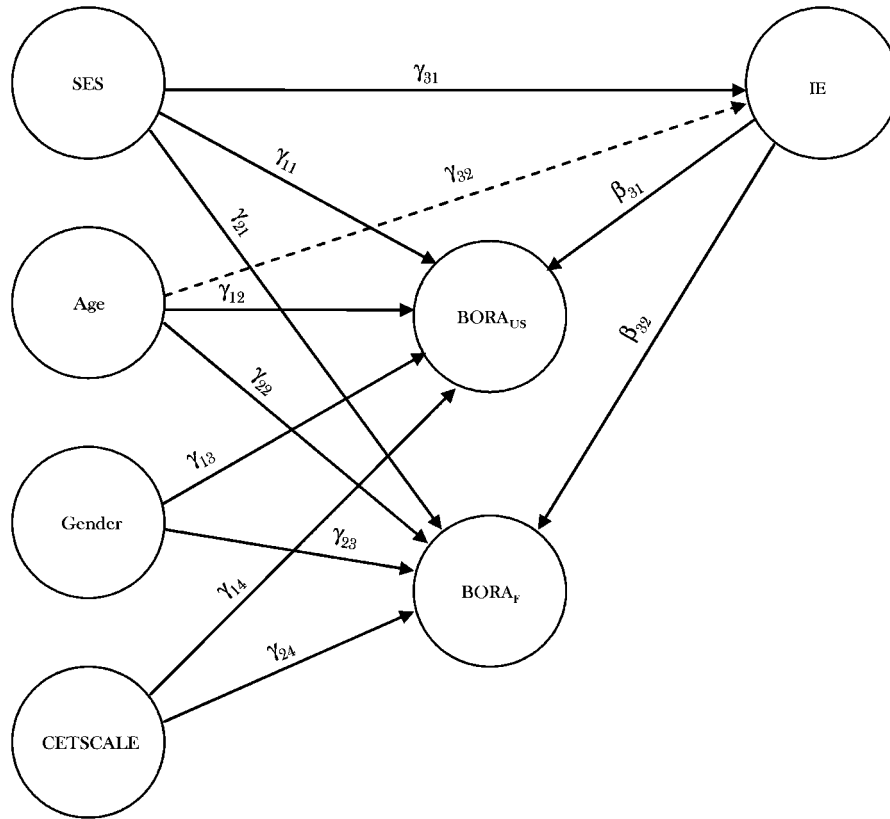


Figure 1 Structural model.

BORA, whereas all other antecedents are modeled as having only direct effects. In estimating the structural model in Figure 1, the indicators of IE, SES, and CETSCALE were summed. Age, gender, SES, and IE were assumed measured without error, and loadings were set to unity. The loading for consumer ethnocentrism (CETSCALE) was fixed as the square root of its reliability (0.98). The goodness-of-fit indices suggest excellent model fits, and all the path coefficients are in expected directions. Path coefficients and fit indices for both models are shown in Table 2.

BORA_{US} findings

The standardized coefficients (with *t*-values in parentheses) are given in Table 2. About 9% of the variance in BORA_{US} was accounted for by the four exogenous constructs and the endogenous construct, international experience. In support of H1, socioeconomic status was positively related to ability to recognize US brand origins ($\gamma_{11}=0.25, t=4.41, P_{1-tailed}<0.01$).⁶ The relationship between socioeconomic status and international experience was also significant ($\gamma_{31}=0.32, t=6.35, P_{1-tailed}<0.01$),

supporting H2a, which posits that higher socioeconomic status is positively related to increased international experience. Moreover, H2c, which posits a *null* relationship between IE and BORA_{US}, was also confirmed ($\beta_{31}=0.04, t=0.82, P_{2-tailed}>0.1$). Age did not significantly predict BORA_{US} ($\gamma_{12}=-0.03, t=-0.49, P_{1-tailed}>0.1$), and thus this relationship does not support H3a. However, as expected, older individuals have more time to travel and to learn foreign languages, and hence the path between age and IE is significant ($\gamma_{32}=0.18, t=3.60, P_{2-tailed}<0.01$). Further, in support of H3b, gender (coded as male=1 and female=2) was positively and significantly related to BORA_{US} ($\gamma_{13}=0.10, t=1.82, P_{1-tailed}<0.01$). The relationship between CETSCALE and BORA_{US} was, as hypothesized, insignificant ($\gamma_{14}=-0.09, t=-0.161, P_{2-tailed}>0.1$) and in accord with H4b.

BORA_F findings

Relationships of BORA_F (Figure 1) performed much better *vis-à-vis* the relationships of BORA_{US}, with the model accounting for 31% of the total variance in BORA_F scores. As shown in Table 2, the direct

Table 2 BORA_{US} and BORA_F path coefficients and fit indices

Path	BORA _{US}		BORA _F
SES → IE		$\gamma_{31}=0.32$ (6.35) ^a	
SES → BORA	$\gamma_{11}=0.25$ (4.41) ^a		$\gamma_{21}=0.31$ (6.13)
Age → BORA	$\gamma_{12}=-0.03$ (-0.49)		$\gamma_{22}=-0.02$ (-0.39)
Gender → BORA	$\gamma_{13}=0.10$ (1.82)		$\gamma_{23}=-0.17$ (-3.88)
CETSCALE → BORA	$\gamma_{14}=-0.09$ (-1.61)		$\gamma_{24}=-0.19$ (-4.11)
IE → BORA	$\beta_{31}=0.04$ (0.82)		$\beta_{32}=0.25$ (5.52)
Age → IE (dotted path)		$\gamma_{32}=0.18$ (3.60)	
Fit indices			
χ^2 (df)		6.09 with 2 df	
P-value		0.048	
RMSEA		0.08 (0.00–0.15)	
Normed fit index (NFI)		0.97	
Comparative fit index (CFI)		0.98	
Incremental fit index (IFI)		0.98	
Relative fit index (RFI)		0.87	

^aValues in parentheses are *t*-values.

R^2 s for IE, BORA_{US}, and BORA_F are 0.13, 0.09, and 0.31, respectively.

effect of SES on BORA_F was significant ($\gamma_{21}=0.31$, $t=6.13$, $P_{1\text{-tailed}}<0.01$) in support of H1. As noted in the BORA_{US} section, the paths between age and IE and SES and IE are significant (see Table 2). The effect of IE on BORA_F was significant ($\beta_{32}=0.25$, $t=5.52$, $P_{1\text{-tailed}}<0.01$), indicating that respondents with greater international experience possessed greater recognition accuracy of the origins of foreign brands. Thus, along with the mediated effect of SES through IE (i.e., $0.32 \times 0.25=0.08$), the total effect of SES on BORA_F was 0.39 (i.e., $0.31 + 0.08$). Substantively, this indicates that higher socioeconomic status inclines individuals to gain greater international experiences and, in turn, these individuals have enhanced ability to recognize the origins of foreign brands. Thus, H2b also is supported.

The negative sign between age and BORA_F reveals an inverse relation that, although directionally consistent with H3a, does not achieve statistical significance ($\gamma_{22}=-0.02$, $t=-0.39$, $P_{1\text{-tailed}}>0.1$). The path between gender and BORA_F is negative ($\gamma_{23}=-0.17$, $t=-3.88$, $P_{1\text{-tailed}}<0.01$), which indicates that females (coded 2) had less ability to recognize foreign brand origins than did males (coded 1). Thus, although the test for H3b was significant, it is in a direction opposite to that hypothesized. Finally, the relationship between consumer ethnocentrism (CETSCALE) and BORA_F is negative and significant ($\gamma_{24}=-0.19$, $t=-4.11$, $P_{1\text{-tailed}}<0.01$). In support of H4a, more ethnocentric respondents had less ability to recognize the origins of the set of 44 foreign brands.

Discussion

These national survey results reveal that respondents, on average, correctly identified the brand origins of approximately only one-third of the 84 brands. To be expected, this American sample of respondents possessed greater knowledge of the origins of brands from the US ($M=49\%$) than of foreign brands ($M=22.3\%$). Tests of the structural equation models further demonstrated that the BORA_F model did a better job in explaining variance in respondents' ability to recognize foreign brand origins than the BORA_{US} model's performance in accounting for variance in their recognition of domestic brand origins. This is probably because the BORA_F data exhibited greater variability *vis-à-vis* the restricted variance in the BORA_{US} data. There was, accordingly, more opportunity for the independent variables to account for variance in the BORA_F scores than was the case with the BORA_{US} data.

It can be argued that the level of BORA_{US} and BORA_F observed in the national survey may simply reflect respondents' sensitivity to surface-level language characteristics and their tendency to assign brand names to countries on that basis. Although this is a reasonable proposition, it must also be acknowledged that the surface characteristics of many of the brand names used in the study belie their actual COs. Who but a marketplace cognoscente would know that Canon is a Japanese brand, Benetton is Italian, or that Evan Picone is of American origin? A second study was necessary to ascertain the relative influence of the language that

consumers associate with each brand, and determine whether these associations underlie BORA.

Study 2: language association and BORA scores

A sample of 51 graduate and undergraduate students participated in this study. With the purpose of determining whether the student sample would yield results similar to the national sample (and thus allow meaningful comparisons between the two samples), participants were asked to complete a BORA questionnaire 1 week after responding to a language-association research instrument. The BORA questionnaire was identical to that used in the national survey. Results from this administration revealed that the students' average BORA score across all 84 brands was virtually identical to the average obtained from the national sample, with both groups exhibiting overall BORA scores of approximately 35%. However, whereas the national sample had a relatively high BORA_{US} score ($M=49\%$) and a low BORA_F score ($M=22.3\%$), the student sample had nearly identical BORA_{US} and BORA_F scores (both at approximately 35%). Thus, although the student sample's BORA scores differ from those of the national sample, the overall BORA average shows that both groups correctly identified the brand origins of only about one-third of the 84 sampled brands. These results suggest that, had the language study been administered to respondents in the national sample, findings similar to those that follow would have obtained.

Procedure and questionnaire

Participants responded to a language-association instrument by assigning each brand name to the language they most closely associated with it. The language-association questionnaire included only 71 brands, in contrast to the 84 brands in the BORA

questionnaire. The difference is due to the fact that six of the 44 foreign brands in the BORA questionnaire – namely, those from Korea and the Netherlands – were excluded from the language questionnaire because in the main study Korea and the Netherlands were not specifically listed as country options. Seven additional brands from the BORA questionnaire were excluded because those brands originated in Switzerland, which lacks a unique language. Analysis of the present data is thus restricted to 71 brands: 40 from the US and 31 from other countries. Respondents were guided with these instructions:

The following pages include a list of brand names that represent products of companies based in various countries. Your task is to assign each brand to the language that the name is closely associated with by its semantic character. For example, many consumers immediately recognize the automobile name *Mitsubishi* as a Japanese word and the detergent name *Tide* as an English word. [These brands were not included among the 71 brands on the language-association questionnaire (see Appendix A1).] Thus, for each brand name we ask you to circle the specific language that first comes to mind when you see that name. Included is a 'don't know' option that you should use in instances where you have no language association for a particular brand name.

Results and discussion

The highlighted entries in Table 3 reveal the percentage of brands from a particular country that respondents correctly assigned to that country's native language. For example, 54% of the brand names having France as their brand origin were correctly assigned to the French language. Likewise, the last row reveals that only 43% of US brands were perceived as English names, with 22.7% perceived as French, 7.5% German, and so on.

Beyond inspecting the raw percentages, the information in Table 3 can be synthesized by calculating a weighted average of the entries on

Table 3 Association of brand names with languages

Brands from	Number of brands ^a	Percentage of brands associated with a specific language					
		English	French	German	Italian	Japanese	Other
England	2	84.7	5.1	6.8	0.8	0.0	2.6
France	7	12.6	54.0	17.4	5.8	0.5	9.7
Germany	10	27.1	12.7	31.0	5.8	3.9	19.5
Italy	4	13.1	15.3	8.5	44.9	2.5	15.7
Japan	8	31.8	3.0	4.9	1.3	45.3	13.7
USA	40	43.0	22.7	7.5	6.4	5.2	15.2

^aNumber of brands from each country included in the language study.



the main diagonal of the table, with the weightings based on the number of brands from each country relative to the total number of brands. Two such weighted averages are apropos (1) weighting based on all 71 brands and (2) weighting limited to just the 31 foreign brands. The two weighted averages are virtually identical, namely 44% with the US brands included and 45% without the US brands.

These weighted-average percentages can be compared with comparable weighted-average BORA scores after excluding the not-listed and Swiss brands (exactly in parallel with the results for the language study). The weighted-average BORA scores for all 71 brands and just the 31 foreign brands are 35 and 39%, respectively. These percentages reflect the level of BORA that would have been expected had respondents' judgments of brand origins been based exclusively on the surface-language features of the brand names. The fact that the weighted-average BORA scores are lower than the weighted-average language scores suggests that average BORA scores in the national survey were lower than what would have been expected had respondents based their brand origin assignments exclusively on the language characteristics of brand names. In other words, using a mere guessing approach to categorize brand origins based on language features should have led to a *higher* percentage of BORA than what was observed in the national sample. Importantly, this suggests that actual knowledge of brand origins – exclusive of the heuristic value of brand names' language affiliation – is minimal indeed. Of course, marketers sometimes make the task difficult for consumers by using brand names that suggest language origins different from the brands' true COs. Nevertheless, the results from Study 2 strengthen the validity of BORA scores in Study 1 regarding consumers' limited ability to correctly recognize the COs for a sample of mostly well-known and widely distributed brands.

General discussion

This research has provided insight into consumers' BORA and the factors that account for variability in BORA scores. The framework for this study is adapted from categorization theory, which, in the context of brand origin knowledge and recall, asserts that consumers categorize relevant brand information in categories that are later accessed as necessary. Based on applications of categorization theory in consumer behavior and management, the models of BORA presented in this study appear

consistent with the literature (cf. Sujan and Tybout, 1988; John and Sujan, 1990).

Several factors explain the implications of this research for the broader body of CO studies and for future research streams. First, a large body of literature in international marketing has been devoted to the examination of CO effects upon buyer preferences. A critical underlying assumption in the CO literature is that consumers do in fact possess accurate knowledge of brands' COs. It is evident in the findings from the national survey that consumers' brand origin recognition is modest at best. Consumers' low BORA scores are achieved, *ceteris paribus*, in the face of transparent US labeling laws that require all imported products to be clearly marked with their respective COs. It is further noteworthy that even the modest BORA scores reported in this investigation are potentially inflated when one considers that, during pretest and screening processes, (1) brands that could not be identified by a large proportion of respondents were dropped from the original set being considered, and (2) brands were also excluded if pretest responses regarding their origin were diffused among several nations. Thus, these findings suggest that the role of CO in brand choice under natural, ecologically valid conditions, where brand origin information has either to be acquired at the point of purchase through active search or accessed from memory via intentional, goal-driven efforts, is nominal for the most part. Additionally, given that firms source their products for global markets from multiple and varying locations, brand origin, as defined in this study, is potentially the only stable information about a product (cf. Thakor and Lavack, 2003). Thus BORA offers an opportunity to explore country influences upon choice behavior more accurately and realistically, and develop an appropriate international marketing strategy. Therefore, based on the results obtained in this study, international marketing strategies should place much greater reliance on non-geographic attributes of brands than those related to their origins. This conclusion is consistent with results obtained by Lee and Ganesh (1999), indicating that brand image is more important than CO.

The CO literature is based mostly on studies that have experimentally manipulated CO cues in controlled laboratory experiments. Such manipulations are heavy handed, inasmuch as consumers are provided with little differentiating information other than a brand's origin. Under these somewhat contrived circumstances, brands are evaluated more

favorably when they are aligned with countries that are themselves judged favorably. It is thus easy to leap to the conclusion from CO research that brand origin plays an important role in consumer preference formation, choice processes, and hence international marketing strategies. But this conclusion is based on the dubious assumption that consumers actually know or seek the origins of brands when forming judgments and making purchase decisions. The present research questions this assumption. The evidence provided, based on a broad spectrum of product categories and brands, suggests that consumers either have limited recognition of brand origins, or find such information relatively unimportant and thus unworthy of retention in memory. This is not to suggest that CO bias does not exist. The CO line of inquiry has demonstrated otherwise, and industry research supports the presence of such bias in a small proportion of the population. Madden (2003), for example, reports that 13% of respondents in China, 19% in Indonesia, and 36% in India rejected US brands based on their origins. However, the expression of an intention to avoid a brand based on its origin is not the same thing as actual brand choice behavior. That is, the extent to which such bias will play a role in brand choice is unknown, and our results indicate that such influence is nominal. Moreover, the result of a survey by Leo Burnett Worldwide in five Asian countries, for example, indicates that 65% of respondents buy the brands they like regardless of their origin (Madden, 2003).

A counter-position is that brand origin information plays a role whether or not consumers actually know where a brand originates. In other words, an English-sounding brand name may be regarded as American by US consumers even though that brand is Korean, and a French-appearing brand name may be perceived as originating in France even though that brand is thoroughly American. The fact remains that consumers might react based on their *incorrect perception* of where a brand originates rather than on the basis of correct origin information. Although plausible, this certainly is not a desirable situation for all brands that are misidentified with countries possessing lower equities than the country from which the brands actually originate. Sophisticated brand managers surely would not tether their brands' successes to the stochastic prospect that their brands may be misperceived as being from countries with higher equities than their actual source countries. On the

other hand, it is easy to understand why a brand marketer from a country that has relatively low *country* equity – that is, with respect to product-quality perceptions – may indeed choose to use a brand name that dissociates it from its source country and suggests it has originated in a country known for high quality. This practice is perhaps best evidenced by some Korean companies' use of English brand names as a component of their international marketing strategies.

Furthermore, low BORA scores may signal their relative unimportance for the relevant segment in brand decision processes (cf. Hugstad and Durr, 1986). Direct empirical evidence supporting this notion is lacking; however, Van Osselaer and Alba (2000) have demonstrated that brand-driven consumers are significantly more likely to show partially accurate recall regarding an important attribute in choice processes than are consumers whose judgments are not brand driven. Our national survey revealed that, on average, consumers are not aware of origins; indeed, nearly 43% of the sample set of brands were assigned to the 'don't know' category – specifically, $M_{US}=34.4\%$ and $M_F=53.3\%$. It thus appears that brand origin plays little role in many consumers' choice processes. Moreover, there is a prominent tendency for our sample of US consumers to regard foreign brands as being of domestic origin. This tendency is likely due to the fact that many foreign brands have had an ongoing distribution and promotion presence in the US, and, for all intents and purposes, consumers may not make a distinction between these and brands of true American origin.

Additionally, the results of Study 2 (language study) indicate that BORA scores may reflect some guessing of brand origins based on language associations even more than they indicate actual knowledge of brand origins. However, our findings do not indicate that brand origin is always inconsequential. There are, no doubt, groups of consumers for whom a brand's origin is especially diagnostic when making brand-selection decisions in those product categories where a particular country is highly regarded in producing a particular product – Germany and precision tools, Switzerland and watches, France and haute couture, etc. (cf. Samiee, 1994).

As a brand association is meaningful only to the extent that the association is categorized somewhat strongly, and is accessible at the time when a brand-related judgment is necessitated (Keller, 1993, 2003), a brand's CO – even if the brand happens



to be from a country with positive equity (Shimp *et al.*, 1993) – may not represent a type of brand association that is judgment or purchase consequential. Our research thus leads to the conclusion that managers of new brands should periodically monitor the origins associated with their brands in order to avoid the obvious pitfalls of their brands being associated with undesirable origins, particularly those that interfere with the international positioning goals stated in their respective marketing strategies. Concurrently, they should never assume that consumers do in fact know a brand's origin.

It is evident from the results of Study 1 that socioeconomic status, international experience, gender (men), and consumer's scoring low on ethnocentrism contribute to higher BORA_F scores. A greater focus on these attributes is likely to establish more firmly the foreign origin of the brand being marketed. In general, however, marketing managers should remain mindful of the low levels of BORA reported in this study, and incorporate brand origin in their marketing strategy only when research results for the particular market being targeted suggest that this would be an effective strategy. In such cases, the variables identified in this research can assist in better targeting the firm's communications.

Of particular importance to international marketing managers is the influence of brand origin on customer acceptance of globally standardized brands. With increased interest in globalization and the achievement of greater economies of scale, the issue should necessarily be viewed from the perspective of the firm's global strategy. Although many respondents in our US-based sample are seemingly unknowledgeable and passive about origins of brands, this is not necessarily the case in other nations (Madden, 2003). For example, anecdotal industry research reports by Kurt Salmon Associates (Textile World, 1991) and by MSR (Walsh, 1993) have noted that some consumers pay close attention to brand origins of apparels.

Brand origin considerations also entail a broader public policy consideration. Governments have an inherent interest in firmly establishing and maintaining a positive country equity for all brands associated with them through communications and promotion programs, education, and regulation. The issues discussed in this research are of particular importance to emerging and developing economies that are rapidly industrializing and vying for a larger portion of global trade. Histori-

cally, firms in these countries have been sensitive to country equity and brand origin considerations. The use of established US brands by some Japanese firms for distribution of their products in the US market is tantamount to leveraging off these firms' strong US association and well-established brands. During the 1960s and the 1970s, for example, Pentax, Ricoh, and Sanyo marketed their products under such well-known US brands as Honeywell, Savin, and Sears, respectively. Thus brand origin considerations should remain important to developing and emerging countries' governments and selectively to some international marketing managers.

Future research

Brand-related issues are among the leading areas designated as research priorities by the Marketing Science Institute,⁷ and the findings of this study highlight the importance of this line of inquiry in an international context. As such, several areas for future research are evident.

First, inasmuch as a great deal of interest in CO research is evident from the literature, BORA offers a more realistic and ecologically more appropriate alternative research stream. A focus on brand origin offers a meaningful alternative for bypassing the many conceptual and research design difficulties and shortcomings associated with CO studies.⁸

Second, standardized branding strategies are inherently related to the firm's global orientation and strategy. Firms cannot create new brands for every new market they enter just by virtue of the presence of negative brand origin or CO bias. Some firms such as Unilever and, to some degree, Colgate-Palmolive and P&G have substantially circumvented brand origin issues by offering numerous local and regional brands, in addition to their global brands. However, BORA scores may still influence consumers' choice to some degree. In general, there is a dearth of empirical studies linking global branding and brand origin to the firms' global orientation. Therefore, future studies that link the implications of brand origin recall to the firm's global orientation and global marketing program are desirable.

Finally, the marketing literature is impoverished with regard to studies that incorporate aggregate brand-related knowledge. With the exception of a few descriptive reports by consulting firms (e.g., Landor Associates), little is known about brand-related consumer knowledge and its influence on consumers' decision processes. Brand origin should

realistically be viewed as a component of brand equity, because the origins of many products are very much a part of their characters. Thus, field studies that involve large numbers of actual brands and attempt to unfold brand-related cognitive structures of consumers are in order.

Limitations

In an effort to address a critical knowledge gap in the CO literature, we have proposed a new construct in this study, BORA, and have developed and validated a measure to assess it. Several aspects of this study have influenced our findings.

First, we used a specific definition for BORA that is advocated in the small but growing literature dealing with product and brand origin. Further, we validated this definition using a group of graduate students. However, knowledge regarding globalization of firms and cross-national acquisition of popular brands may complicate the nature of brand origin for some respondents.⁹ Despite the complex nature of brand ownership, our focus was on origin rather than ownership, and therefore we feel secure in the definition deployed in the study. Be that as it may, other brand origin definitions might have resulted in a different outcome.

Second, the set of brands used were derived from a wide range of consumer products. We intentionally excluded brands with well-known origins so that BORA scores are not artificially inflated. The great majority of consumers probably cannot decouple such brands as Mercedes-Benz and Sony from Germany and Japan, respectively. Although our findings provide a solid basis regarding consumers' limited knowledge of origins of brands, they should not be extended to brands that embody their origins without further research.

Third, our research instrument was demanding in that it required respondents to recall 84 brands, their experiences with them, and their origins, and to respond to demographic and other questions. Given the length of our research instrument, respondent fatigue might have influenced the accuracy of some responses. Overall, however, we consider the risks posed by these limitations to be minimal, and are confident that our results represent realistic assessments of consumers' cognitive structures.

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Notes

¹Reviews of the extensive CO literature are provided by Papadopoulos and Heslop (1993), Samiee (1994), Al-Sulaiti and Baker (1998), and more recently by Gürhan-Canli and Maheswaran (2000).

²A counter-argument to the foregoing premise is that it is non-functional for consumers to retain brand-origin information in memory because point-of-purchase cues (packaging and in-store displays and signs) provide them with 'external memories' (Bettman, 1979) that can be acquired on demand. This appears plausible until it is noted that consumers spend a trivial amount of time inspecting brands at the point of purchase (Dickson and Sawyer, 1990).

³These statistics, particularly for the lower income and education groups, are generally inflated, because even a single trip to Canada or Mexico is classified as foreign travel. That is, the breadth and depth of international experience is not captured in the statistics reported by Rounds (1988). However, the author also reported the proportion of Americans who travel to further destinations, which is substantially lower than those reported for any international travel experience: Germany (17%), Great Britain (15%), France (15%), Italy (12%), Japan (7%), Australia (3%), India (1%), and the Soviet Union (1%).

⁴Two important considerations with respect to brand familiarity are noteworthy. First, if the data were screened for brand familiarity, a large portion of observed brand origin data would be systematically set aside. As it is implausible that brand familiarity explains 100% of the variance in the dependent variable, the analysis would be biased if it were limited only to brands with which respondents reported familiarity. Second, brand familiarity cannot be incorporated in the model as a separate construct because the data are at the brand level whereas the dependent variable is an aggregate account of all brands. These issues further demonstrate that the use of adjusted scores would not reflect the correct magnitude of brand origin recall and, in general, is problematic.

⁵Chi-squared with 18 df=932.638, RMSEA=0.121, NFI=0.958, NNFI=0.962, CFI=0.966, IFI=0.966, RFI=0.953.

⁶One-tailed and two-tailed *p*-values are reported for directional and non-directional hypotheses, respectively.

⁷MSI divides its research priorities into Gold, Silver, and Bronze categories, and brand-related topics are



listed as the leading Silver-level research issues (http://www.msi.org/msi/research_priorities.cfm).

⁸The literature indicates that consumers are fairly knowledgeable about the multinational composition of many products they purchase (Shimp *et al.*, 1993; Ahmed and d'Astous, 1995), and this knowledge has created a natural bias when attempting to assess the influence of the CO on consumers' choice. Additional difficulties include simplicity in design (for example,

whether CO is a salient consideration in choice process), unrealistic manipulations, and the artificial introduction of CO cues that have collectively led to some controversial managerial prescriptions (e.g., Bilkey and Nes, 1982; Samiee, 1994).

⁹Zenith, for example, was US-owned at the time of data collection, but is now owned by LG Electronics of Korea. To avoid this problem, brands with ambiguous origins were dropped during our pretest.

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Appendix A1

List of brands constituting the BORA_{US} and BORA_F measures

United States

Almaden, Anne Klien, Capezio, Clinique, Conair, Converse, Emerson, Estee Lauder, Eureka, Evan Picone, Finesse, Florsheim, Halsa, Hoover, Hotpoint, JG Hook, Jergens, Jhirmack, Jovan, Keds, Keri, L'envie, LaChoy, LeSeur, Liz Claiborne, Maytag, Medipren, Nunn Bush, Nuprin, Oscar de Lorenta, Pantene, Proctor Silex, Reebok, Regina, Samsonite, Silkience, Sunbeam, Tappan, Vidal-Sassoon, Zenith

England

Advil, Laura Ashley

France

Aigner, Bic, Chanel, Evian, Germaine Montel, Lancôme, Perrier

Germany

Adidas, Agfa, Bayer, Braun, Dual, Lowenbraü, Nivea, Pendelton, Puma, Zeiss

Italy

Bandolino, Benetton, Nordica, Olivetti

Japan

Canon, Citizen, Epson, Fuji, Minolta, NEC, Nikon, Sharp

Switzerland

Bally, Cartier, Movado, Omega, Piaget, Rolex, Swatch

Not listed

GoldStar, Magnavox, Norelco, Phillips, Samsung, Soundesign

About the authors

Saeed Samiee is the Collins Professor of Marketing and International Business at the University of Tulsa. He has published in scholarly journals including *Journal of Marketing*, *Journal of International Business Studies*, and *Journal of the Academy of Marketing Science*. He serves on the review boards of a dozen scholarly journals, and was named an outstanding reviewer by *Journal of the Academy of Marketing Science* and the *Journal of International Business Studies*.

Terry Shimp is Professor of Marketing, Chair of the Marketing Department, and the WW Johnson Distinguished Foundation Fellow at the University of South Carolina. He has been a frequent contributor to the top marketing, consumer research, and advertising journals on issues of consumer learning, persuasion, and response to marketing and advertising communications. He authors *Advertising, Promotion, and Supplemental Aspects of Integrated Marketing Communications* (Thomson/South-Western, 6th edn, 2003).

Subhash Sharma is Professor of Marketing and Charles W Coker Sr Distinguished Foundation Fellow in the Moore School of Business, The University of South Carolina. He has published extensively in leading academic journals, and is currently serving on the editorial review boards of the *Journal of Marketing* and the *Journal of Retailing*.

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