

# 11. Language and culture: linguistic effects on consumer behavior in international marketing research

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## INTRODUCTION

In recent years, there has been a wealth of research examining the relevance of culture to consumer behavior. This chapter reviews a particular line of work within this larger body of research: work investigating the unique relevance of language. Our review finds that both structural features of language (properties of grammar) and lexical-semantic and phonological features of language (related to writing systems) are important. More specifically, current work suggests that these language features affect how consumers perceive, and also respond to, various marketing stimuli (e.g. advertisements and brand names). Our review summarizes and integrates a number of related findings, and highlights their practical significance.

International marketing research has focused more and more heavily on the topic of cross-cultural consumer behavior. And this research has observed important cross-cultural differences in the processing, evaluation, and judgment of brand and product information. Much of this work suggests that cultural differences stem from pervasive socio-cultural or cognitive factors. For example, a good deal of research demonstrates that people have broad, culture-specific cognitive dispositions, like individualism or collectivism, which can guide consumer behavior (e.g. Aaker and Williams 1998; Hofstede 1980; Triandis 1989). Other work has built upon these fundamental findings, showing that there are specific conditions under which such dispositions are especially likely to affect consumer choice (e.g. Aaker and Lee 2001; Briley, Morris and Simonson 2000; Weber and Hsee 2000).

Another line of research has turned the focus to language. This research, with roots in cognitive psychology and marketing alike, submits that a given culture's language can play a vital role in determining consumer perceptions, evaluations, and decisions (e.g. Hunt and Agnoli 1991; Luna and Peracchio 2001; Schmitt, Pan and Tavassoli 1994; Schmitt and Zhang 1998;

Tavassoli 1999, 2001; Tavassoli and Han 2001; Zhang and Schmitt 1998). In this chapter, we will take a closer look at this psycholinguistic research, and discuss how this research informs current thinking about cross-cultural marketing issues.

Specifically, we will discuss two areas of current psycholinguistic work: work on the structural features of language (properties of grammar), and work on the phonological and lexical-semantic features of language (related to writing systems). Turning our attention first to work on structural features, it should be noted that such work stems from the so-called ‘Whorfian Hypothesis’ (Whorf 1956), or the basic idea that language can affect cognition. In 1991, Hunt and Agnoli combined this original hypothesis with knowledge from cognitive psychology to propose that language might affect consumer categorization of both single objects and groups of objects (Hunt and Agnoli 1991). These early predictions were important, as they laid the ground for fruitful empirical work. Namely, in recent work conducted in a consumer behavior marketing context, we have found that structural aspects of a language can in fact critically affect one of the most basic aspects of consumer behavior – categorization of products (Schmitt and Zhang 1998; Zhang and Schmitt 1998).

The second area of research we will discuss concerns the phonological and lexical-semantic aspects related to different types of languages and their writing systems (Zhang and Schmitt 2001, 2002). Like grammar, phonology and semantics are fundamental building blocks to a linguistic system and should therefore have an impact on consumer behavior. In our research, we have explored phonology and semantics by looking at naming in the context of phonological and logographic writing systems. This research shows that how much consumers like a brand name (specifically, a brand name translation) can importantly depend on whether that name depicts phonological or semantic characteristics of the original name. As we will see, this research involves very practical implications for marketers and brand managers operating in a global environment.

## EFFECTS OF LANGUAGE STRUCTURE ON PERCEPTION, CATEGORIZATION AND EVALUATION

How do the structural properties of language affect people’s thinking and behavior? In addressing this question, we will focus on just one grammatical structure, a lexical-syntactic structure called a ‘classifier’ (Lucy 1992). Classifiers are present in languages like Chinese, Japanese, Korean, and Thai, as well in as the Navajo and Yucatan-Mayan languages, but they are

virtually absent in Indo-European languages such as English, Spanish, French, and German (Lucy 1992). What, exactly, is a classifier? It is a structure that provides people with an 'object frame', or reference point for object categorization. As an example, the Chinese counterpart to the English phrase 'that umbrella' is 'nei ba yusan', where 'yusan' is a noun (umbrella), 'nei' is a determiner ('that'), and 'ba[3]'<sup>1</sup> is the classifier – in this case signifying that the object (an umbrella) can be grasped, or held in one's hand. Similarly, Chinese uses the classifier 'duo[3]' in conjunction with nouns such as flame, cloud, and spray to denote that these objects are all amorphous, or shapeless. Classifiers may indicate either the conceptual properties of an object (e.g. graspability, flexibility) or the physical properties of an object (e.g. shape, length). Importantly, however, classifiers are not 'optional' the way English adjectives are. While not every noun in the Chinese language is associated with a classifier, when a noun is associated with a classifier it is generally mandatory that the classifier be used. In other words, many nouns are associated with a specific classifier, and omission of the classifier is typically ungrammatical.

Given this understanding of classifiers, we suspected that classifiers could affect how people perceive and categorize objects. That is, we expected that speakers of Mandarin Chinese (who use one classifier system) would perceive and categorize stimuli differently from speakers of Japanese (who use another classifier system), and, most significantly, from speakers of English (who use no classifier system at all). For example, we expected that Chinese speakers would be especially likely to conceptualize and categorize umbrellas as graspable objects, while English speakers would not tend to construe umbrellas in any one particular way (i.e. they might well think of umbrellas as graspable objects, collapsible objects, or protective objects).

In a series of more than ten experiments (Schmitt and Zhang 1998; Zhang and Schmitt 1998), we presented strong support for the Whorfian hypothesis by testing a number of specific predictions. First, we predicted that native Chinese speakers would be more likely to see two separate objects as similar if those objects shared a common classifier than if they did not, while native English speakers would show no such tendency. For the purpose of this research, we randomly selected 14 of the total 35 classifiers Chinese speakers commonly use (see Chao 1968; Liu, Pan and Gu 1983), and then created a list of objects (e.g. ruler, mirror, bell) that might be associated with these classifiers (based on Chao 1968). Table 11.1 lists all of the classifiers we selected, along with many of the stimulus objects we used.

Thirty-one native Chinese speakers (who were barely familiar with English) and 30 native English speakers (who did not know Chinese) were

*Table 11.1 The specific classifiers used and examples of the associated object stimuli used*

Classifier		
Pinyin <sup>a</sup>	Semantic Features <sup>b</sup>	Examples of Stimulus Objects Used
ba[3]	can be grasped	door key, umbrella, ruler, pliers
ding[3]	top	hat, mosquito net, tent
duo[3]	amorphous	mushroom, flame, cloud, spray
geng[1]	root or root-like thing	sausage, nail, stick, braid
ke[1]	bead-like item	tooth, star, pearl, heart
kou[3]	openings	vat, coffin
jia[4]	wooden frame-like	airplane, swing
jie[2]	a cut section	battery, railroad car
mien[4]	surface	flag, wall, mirror, drum
mu[4]	round piece	stamp, ring, political button
pian[4]	slice	meat, snowflake, tablet
shan[4]	fan-like	window, divider
tiao[2]	long, slender strip; pliable	snake, river, soap bar, fish, cable
zuo[4]	seat or seat-like things	house, bell, temple, mountain

*Note:*

<sup>a</sup> Pinyin: standard transliteration used for Chinese characters.

<sup>b</sup> Semantic Features: the perceptual and conceptual features that each classifier conveys.

presented, in their native language, with the object stimuli. They were then asked to make pair-wise similarity ratings of the objects. As predicted, there was a significant interaction effect. Similarity ratings were contingent upon both language (Chinese versus English) and classifier (whether or not the two objects rated shared a common classifier in the Chinese language). Chinese speakers gave pairs that shared a (Chinese) classifier much higher similarity ratings than those that did not share a classifier, whereas English speakers gave almost identical ratings to both types of pairs.

These results were perfectly in accord with our predictions, and, importantly, they were replicated using different subjects and different sets of stimuli. These findings therefore strongly suggested that classifiers were influencing how Chinese speakers perceived relationships between different objects. However, these findings did not explicitly show that classifiers influence Chinese speakers' mental representations of objects.

We therefore decided to directly test the idea that classifiers affect mental representations. Since several different objects are typically associated with any one classifier, we reasoned that Chinese speakers would group, or cluster, classifier-sharing objects in their cognitive representations. How

could such cognitive representations be measured? According to several memory researchers, the sequence in which people recall information can serve as an indicator of how they are grouping objects mentally. In other words, when object *x* triggers a person's recall for objects *y* and *z*, but not for objects *a* and *b*, it is likely that the person's mental representation of *x* is clustered together with *y* and *z*, but not with *a* and *b*. We reasoned that Chinese speakers would tend to mentally categorize objects in accordance with their classifiers, and we therefore predicted that they would be more likely to recall classifier-sharing objects in clusters than would English speakers.

To test this prediction, we recruited a sample of 59 Chinese speakers and 53 English speakers similar to those used in our previous studies. We provided participants with a list of words drawn from the same pool as those shown in Table 11.1, and then asked participants to remember those words. We were interested, of course, in whether or not Chinese speakers, relative to English speakers, would show classifier-related clustering. Using Pellegrino and Hubert's (1982) clustering index, this is exactly what was found.

Chinese speakers, as expected, were more likely to cluster according to (Chinese) classifier than were English speakers. It is important to recognize that this effect emerged despite the fact that on some occasions Chinese and English speakers might have naturally clustered objects in the same way (e.g. due to conceptual similarities among objects that are apparent to everyone). In other words, above and beyond the kinds of clustering that are common to both Chinese and English speakers (e.g. clustering of 'toothbrush' and 'toothpaste'), there were still significant classifier-related effects on the cognitive associations that Chinese speakers made.

So far, we have shown that classifiers affect the perceived similarity of objects and the association of objects in people's minds. But can conceptual knowledge, represented in classifiers, also guide people's expectations, evaluations and preferences? In other words, do classifiers influence consumer behavior in practically relevant ways? We suspected that the answer would be yes. We noted that in China many retail displays reflect classifier groupings; for example, Chinese department stores typically group together objects that share the classifier 'tai[3]' (used for electric and mechanical equipment), such as blow dryers, TVs, radios, washing machines, computers, electric fans, and electric cooking knives, whereas their US counterparts virtually never group such items together. If classifiers relate to things like retail displays, we suspected that they could indeed affect people's behavior in practically relevant ways.

We decided to test the effect of classifiers on expectations and preferences in a significant and very practical domain: advertising. Because people who speak languages that have classifiers apparently use classifiers when per-

ceiving objects, we predicted that they would also show a preference for ads relevant to a product's classifier as opposed to ads not relevant to a product's classifier. We tested this prediction in a very straightforward experiment. We asked 40 native Chinese speakers to judge the advisability of using different photographs (all similar to one another in terms of layout and product display) in an advertising campaign. All participants were presented with potential campaign photos for eight different products: four products associated with the classifier 'ba[3]', denoting a graspable object (brush, cane, umbrella, and cable), and four products associated with the classifier 'tiao[2]', denoting a long, thin, and flexible object (pants, cord, rope, and cable). Half of the participants, however, were shown potential ad campaign photos that related to the classifier 'ba[3]' (photos depicting a hand grasping an object), while the other half were instead shown potential campaign photos that did not relate to 'ba[3]' (photos with no hand). We predicted that when the product in question was associated with the classifier 'ba[3]', participants would prefer the hand-present, or classifier-relevant, photos more than the hand-absent photos. When the product in question was not associated with 'ba[3]', however, we predicted that participants would evaluate hand-present and hand-absent photos as equally good. This is, in fact, precisely what we found (see Figure 11.1).

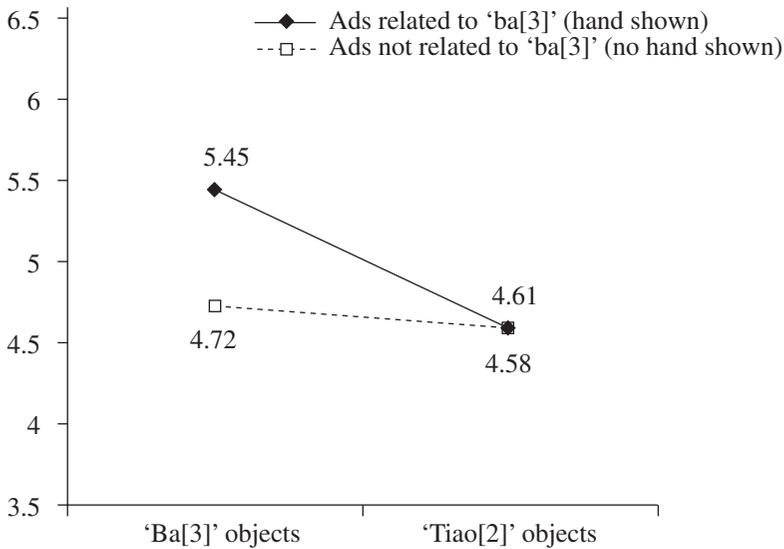


Figure 11.1 Chinese speakers' evaluations of ads related and unrelated to the classifier 'ba[3]'; for objects having the classifier 'ba[3]' versus objects having the classifier 'tiao[2]'

To rule out the possibility that this pattern of findings resulted from idiosyncratic characteristics of 'ba[3]' products (as opposed to 'tiao[2]' products), we asked 30 native Japanese speakers to participate in the same experiment. In the Japanese language, the same single classifier ('hon') is associated with all of the eight stimuli products. Notably, we found no significant effects with this Japanese sample (i.e. Japanese speakers liked the hand-present and hand-absent photos about the same, regardless of the product in question). Our results therefore strongly suggested that evaluations of ads are dependent upon the relevance of ad components (such as photos) to a product's classifier.

In sum, our research on classifiers has shown that grammatical differences between Chinese and English, differences that separate many other pairs of languages as well, play a powerful role in shaping consumer behavior. Classifiers affect the perceived similarity among objects, clustering in recall, and expectations and preferences. In two additional studies not described here (Schmitt and Zhang 1998), we have shown that classifiers also affect consumer inferences and choice. Thus, these grammatical structures color all aspects of consumer behavior. In the next section, focused on name translation, we will show that phonological and lexical-semantic aspects of language are just as important.

## EVALUATIONS OF NAMES IN PHONOGRAPHIC AND LOGOGRAPHIC SYSTEMS

As marketers become more and more globally oriented, the question of how to best translate a brand name from one language into another has become especially important (e.g. Aaker 1991; Aaker and Joachimsthaler 2000; Javed 1993; Schmitt and Simonson 1997). While translation often appears to be a straightforward process, in many cases it is not. It should be noted that linguists have distinguished two major types of writing systems: phonographic systems, including English, where written words represent the sound components of the spoken language; and logographic systems, including Chinese, where written 'sign' symbols represent both words and concepts (Akmajian et al. 1992, p. 467). In short, in phonographic systems like English it is possible to 'sound out' an unknown written word but not possible to guess its meaning, while in logographic systems like Chinese the reverse is often true.

What challenges does this situation present to marketers who wish to translate a brand name from a phonological system into a logographic system? The major challenge is that the translation can be performed using one of three different methods (see, e.g., Nida and Tabert 1969). Major

multinational companies have used all of these methods to translate English names into Chinese. In the first method, the phonetic method, the Chinese name is created simply on the basis of the sound of the original English name. The Chinese name for Nabisco, for example, sounds similar to its English counterpart. In the second method, the semantic method, the Chinese name is created simply on the basis of the meaning of the English name. The Chinese name for Microsoft, 'wei-ruan', meaning 'micro/tiny-soft', was translated in this way. Finally, in the phono-semantic method, names are created based on some combination of sound plus meaning. For example, the Chinese name for Colgate, created with the phono-semantic method, sounds similar to the original English name and also conveys semantic, or meaningful, information (signifying that the product is 'minty' and clean).

In our research, we sought to determine whether an accounting of the differences between phonological and logographic systems could lead us to a better understanding of when and why one translation method (e.g. a phonetic translation) might be more effective than another (e.g. a semantic translation). At first glance, it would appear that phonetic-semantic translations would consistently be the most effective (as they would appear to combine the benefits of both 'sound alone' and 'meaning alone' translations). In experiments investigating English-Chinese brand name translation, however, we found a more refined pattern of perception and evaluation.

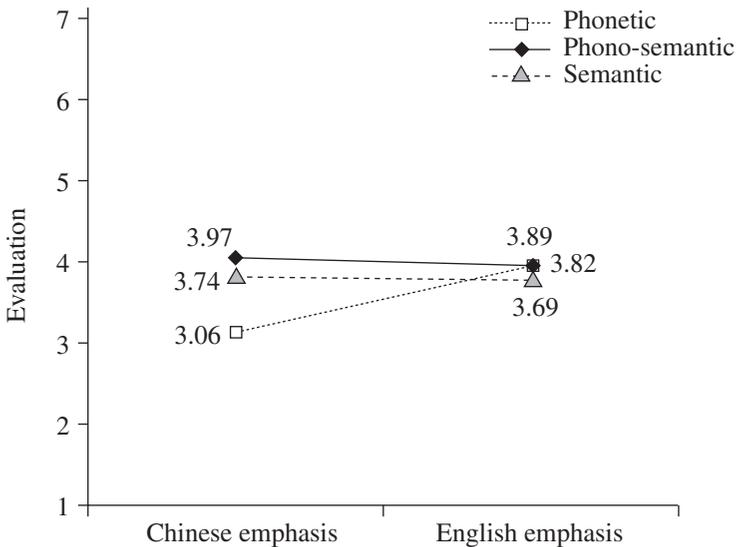
Before reporting on the findings of these experiments, some context will be helpful. Many Western products have entered the Chinese marketplace in recent years, and prominent among them are products that were initially developed using the English language. These products are packaged for Chinese consumers in a variety of different ways. Typically, however, packaging includes the product's original English name as well as its Chinese name. Some products emphasize the English (with a bold typeface, for example), while others emphasize the Chinese. The main point is that Chinese consumers are quite familiar with 'bilingual' product packaging. Because such packaging includes both phonological (English) and logographic (Chinese) representations of the brand name – the former more tied to sound and the latter more tied to meaning – we suspected that Chinese consumers would be most inclined to favor phonetic translations if the English name was emphasized but favor semantic translations if the Chinese name was emphasized (see Pan and Schmitt 1996). In other words, if the (logographic) Chinese name were the focal point of a product, then a consumer might be inclined to favor a Chinese name that conveyed the 'meaning' of the product (best approximated by a semantic method). On the other hand, if the (phonological) English name were highlighted, then a consumer might prefer a Chinese name 'sounding like', or 'matching

with', the English name (best approximated by a phonetic translation). In the case of phono-semantic translations, however, we did not expect to see any differences relating to language emphasis.

We tested these predictions with a sample of 183 native Chinese speakers in Shanghai. Importantly, in terms of their proficiency in English, these participants were highly representative of the young consumer market: they were familiar with the alphabetic writing system; they could read and understand basic English; and they could easily distinguish between phonetic, semantic, and phono-semantic English-Chinese translations. Participants were told that they were to evaluate a series of six fictitious Chinese brand names (translated from original English names) that might ultimately be used for real product packaging. The stimuli included fictitious names for products such as shampoo, crackers, and contact lenses. In presenting the names to subjects, we systematically varied both the translation method used for the Chinese name (phonetic, semantic, or phono-semantic) and the language of emphasis (Chinese or English). We then collected three separate measures of name evaluation.

Consistent with our predictions, it was not the case that any one translation method was seen as the best. Instead, evaluations of differently translated names depended, as predicted, on whether there was an emphasis on the Chinese name or the English name (see Figure 11.2). Our results indicated that our participants favored phonetic translations over both other types of translations when they were presented with a product that emphasized the English name. In other words, it seems as if the English emphasis focused participants' attention on phonetic aspects, resulting in a proclivity to favor phonetically translated names. Also as expected, our participants saw phono-semantic translations as equally good, regardless of whether a product emphasized the Chinese name or the English name. But contrary to our predictions (though trends conformed to expectations), we did not find that semantic translations were evaluated significantly better in the case of Chinese emphasis rather than English emphasis, possibly because cases of 'purely' semantic translation are quite rare in the Chinese marketplace. Despite this last finding, the general pattern that emerged in this study was suggestive: Chinese speakers might be more inclined to favor one type of name translation over another depending on language-related contextual cues.

We explored this possibility further in another experiment. We recognized that priming effects have been shown to occur in the case of immediate contextual cues (such as name emphasis on product packaging), as well as in the case of cues present in people's long-term memories (see, for example, Higgins and King 1981; Sinclair, Mark and Shotland 1987; Bargh 1989; Fiske and Taylor 1991). Consistent with such findings, we proposed



Note: 95% confidence intervals for each  $\bar{X}$  are as follows: 3.97 (4.30, 3.64), 3.82 (4.28, 3.47); 3.74 (4.10, 3.38), 3.69 (4.49, 3.49); 3.06 (3.40, 2.72), 3.89 (4.31, 3.47).

Figure 11.2 Chinese speakers' evaluations of different types of brand names as a function of language name emphasis

that in addition to relatively immediate linguistic cues present in people's environments, long-term linguistic cues stored in people's memories could also affect preferences for different types of name translations. More specifically, we proposed the following hypothesis: when consumers are asked to evaluate fictitious names for a new product, and they know that existing successful products in the same category were created with a given translation method, then they should show a preference for fictitious names that have been created using the same method.

To test this hypothesis, we recruited 120 Shanghai consumers. Participants were told that their opinions were needed in order to help a group of managers decide which Chinese names (presented in a 'bilingual' format) to use for different products. In this experiment, we focused only on phonetic and phono-semantic name translations. We told half of our participants that prior successful products (in the same respective categories) had used the phonetic method, while we told the other half that prior successful products had used the phono-semantic method. Additionally, we presented half of our participants with products that emphasized the Chinese name, and the other half with products that emphasized the English name. Participants

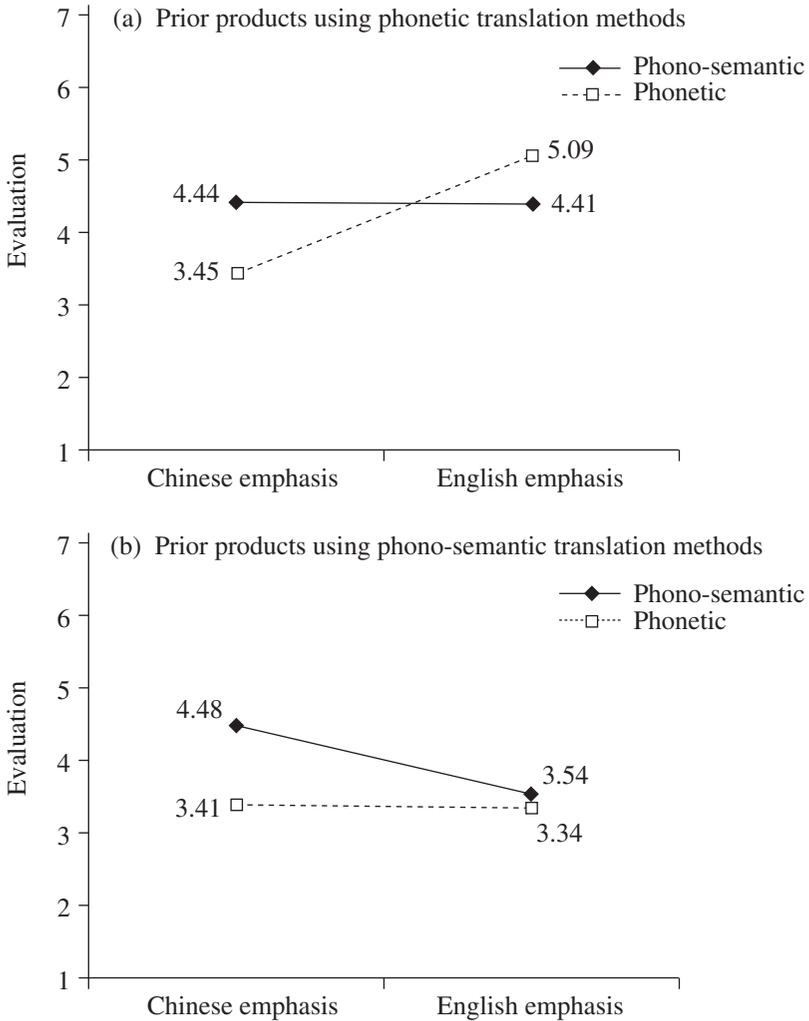
were then asked to evaluate a series of fictitious names, some created by phonetic translation and others created by phono-semantic translation.

The results of this study strongly supported our overall predictions. As expected, when participants were informed that prior products used phonetic translations, they in turn showed a preference for new phonetic names (see Figure 11.3a). When informed that prior products used phono-semantic translations, on the other hand, they showed a preference for the new phono-semantic names (see Figure 11.3b). These results suggested that name translation conventions in a given product category could serve as important primes, setting up cognitive expectations and preferences *vis-à-vis* new brand names. Importantly, additional analyses allowed us to rule out the notion that these effects stemmed from foreign ‘image’ rather than linguistic cues.

## SUMMING UP

In this chapter, we have summarized two separate streams of research. First, we have discussed research on classifiers – the grammatical structures present in Chinese and other languages that require speakers to ‘frame’ or ‘preface’ objects. In such research, it was found that Chinese speakers tend to rely on classifiers when assessing similarity among products, when organizing mental representations of products, and when evaluating the different ways products might be displayed (e.g. in advertising). This research illustrated that the structural properties of language can have a significant impact on how consumers view products. Our discussion then turned to branding and naming, and the ways in which an understanding of the phonological and lexical-semantic properties of language (related to writing systems) can inform marketers’ naming and branding decisions. This second stream of research showed that of the three methods available for translating English names into Chinese names, no one method is always preferable to Chinese speakers. Instead, preferences are apparently contingent upon both immediate, environment-based linguistic cues, and long-term, memory-based linguistic cues. This research therefore demonstrated the practical importance of the phonological and lexical-semantic properties of language.

Taken together, our research suggests that an understanding of different types of languages, including their grammatical structures and writing systems, can importantly inform marketers’ decision making. Our research indicates, for example, that in countries that use classifiers, advertisers could benefit significantly by simply identifying the classifiers associated with their products and making an effort to incorporate those classifiers into their ad campaigns. Moreover, in a retailing environment, managers



Note: (a) 95% confidence intervals for each  $\bar{X}$  are as follows: 4.44 (4.73, 4.15), 4.41 (4.72, 4.10); 3.45 (3.69, 3.23), 5.09 (5.38, 4.80).

Note: (b) 95% confidence intervals for each  $\bar{X}$  are as follows: 4.48 (4.78, 4.18), 3.54 (3.90, 3.18); 3.41 (3.77, 3.05), 3.34 (3.68, 3.00).

Figure 11.3 Chinese speakers' evaluations of different types of brand names as a function of prior naming methods

might benefit from using classifier-based product arrangements. Regarding brand names, our research suggests that when marketers make naming decisions – decisions that often entail significant amounts of time and resources – they must pay close attention to which name (the original or the translation) should be emphasized in product packaging and marketing communications.

What other language-based effects should future research examine? Research should explore the relevance of structural aspects other than classifiers to consumer cognition and behavior. For example, a product's characteristics may be lexically and semantically encoded in the form of a classifier or an adjective that depicts the function of the product. Although there are similarities in the linear occurrence of classifiers and adjectives in a noun phrase (both appear before nouns), there are also semantic and representational distinctions between the two. Namely, while adjectives describe specific instances within a class (e.g. the adjective 'flat' could be used for a specific table), classifiers instead describe classes of objects (e.g. the classifier 'zhang [1]' is used to denote that an object is part of the class 'tables' – regardless of whether it is flat). Future research might ask: how do adjectives impinge on consumer mental processing and behavior? How do consumers respond when product attributes are inconsistent with classifier attributes (e.g. a curved table)? Similarly, research might explore how structural differences in sentence construction influence consumer processing of ad messages. For example, given that languages like Chinese and Japanese employ topic structures, we might expect that these languages facilitate encoding and recall for the topics and themes of ads (e.g. the products' function). In contrast, languages that explicitly repeat or use anaphoric expressions to refer to the topics of ads (like English in the form of pronouns) might instead be expected to facilitate encoding and recall for brand names.

In terms of naming and branding, research might move beyond the general distinction among phonetic, semantic, and phono-semantic translations to examine other types of differences among translations (e.g. high versus low tones, metaphorical versus literal meanings, or idiomatic versus formal structures). Future work might also explore how visual elements, such as logos and symbols, interface with linguistic characteristics to affect cognition and behavior (e.g. see Schmitt and Simonson 1997). More generally, future research should broaden the topic of language-based cognition and choice to include additional properties of language such as word formation and sentence construction. Finally, given the increasing number of bilingual speakers in many key markets, future research would do well to examine how second-language proficiency might influence various language-based consumer effects.

As marketers become more and more international in focus, researchers

are in turn spending more time investigating cross-cultural differences in consumer judgment and behavior. Within this larger stream of research, our work has examined a more specific topic: how does language shape the way consumers perceive, evaluate, and ultimately respond to different products and product features? Taken as a whole, our findings have indicated that a thorough consideration of language-based effects will be critical for future research in cross-cultural consumer and marketing research.

## NOTE

1. Chinese is a tonal language, meaning that different tones signify different meanings. The numbers in parentheses are used for the four tones in Mandarin Chinese: high [1]; rising [2]; falling–rising [3]; and falling [4].

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