LANGUAGE AND CONSUMER PSYCHOLOGY

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The proposition that language shapes thought—termed *linguistic relativity*—is often attributed to Edward Sapir and his student Benjamin Whorf, although the general philosophical proposition was advanced by Humboldt (1836/1988) and has roots that can be traced back to Plato. According to the Sapir-Whorf hypothesis, language shapes the way people perceive the world. Although linguistic relativity is typically used to describe how people who speak different languages perceive the world differently, we take a broad view of the proposition to discuss how language influences judgments and behaviors through different psychological processes.

As an organizing framework, we have structured this discussion around the different types of psychological processes that language influences: cognitive processes, social processes, and cultural processes. Across the three process domains, we discuss the effects of different linguistic factors. For our purposes, in terms of language, cognitive processes are ones that occur primarily within a person, social processes are ones that involve interpersonal communication, and cultural processes are ones that involve cross-language effects. However, we acknowledge that these different categories are imprecise and that there is often overlap between them. Our objective is simply to provide a heuristic framework to organize the large volume of research on language effects.

The literature on language effects is vast, and a comprehensive review is beyond the scope of this chapter. Thus, we stress that our review is selective, both in terms of the representative research for various linguistic factors and effects and the coverage of the many different types of factors. Finally, we also note that our review primarily focuses on research in consumer psychology, with an emphasis on the most current findings. However, for context, we also discuss research in the basic disciplines that inform applications to consumer psychology.

COGNITIVE PROCESSES AND LANGUAGE

Language shapes individuals' cognition along multiple dimensions. Language influences what people attend to, how they perceive stimuli, what they remember, and their attitudes, reasoning processes, and behavior (R. W. Brown & Lenneberg, 1954). Not only does the substantive message transmitted by language affect people's cognition but the characteristics of language itself also affect what and how people think. Communicators often use linguistic factors (e.g., phonetic symbolism, unusual spelling, metaphor) as marketing devices to make their claims more persuasive (Pogacar, Lowrey, & Shrum, 2018). In this section, we provide a selective review of research on the effects of linguistic factors on

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consumers' cognitive processes. Table 19.1 provides a summary of the findings for the factors discussed.

Phonetic Symbolism

One of the most ubiquitous linguistic factors that has been investigated in consumer contexts is phonetic symbolism (Spence, 2012). *Phonetic symbolism* is the notion that the mere sound of a word conveys meaning, independent of its definition. Most research on phonetic symbolism effects has focused on isolated phonemes (distinct units of sound), typically conveyed by different vowels and consonants. Both individual vowel and consonant sounds are associated with many different sensory perceptions. For example, higher pitched sounds are associated with concepts such as sharper, faster, smaller, lighter, higher pitch, psychologically closer, and more feminine, whereas lower pitched sounds connote the opposite (duller, slower, larger, lower pitch, psychologically distant, more masculine; Klink, 2000; Maglio et al., 2014). Consonants display similar associations. For example, fricative consonant sounds, which are formed from air friction through open articulators (e.g., "f," "v"), are associated with similar perceptions as front vowels. In contrast, plosive consonant sounds, which are formed through

TABLE 19.1

Summary of Findings: Cognitive Processes

Linguistic factor	Mechanism	Effects	References
Phonetic symbolism	Cross-modal sensory correspondence/ semantic association	Brand name preference	Baxter & Lowrey, 2014; Lowrey & Shrum, 2007
		Brand performance	Pogacar et al., 2015
		Brand/product attitude	Yorkston & Menon, 2004
		Brand/product perception, product recommendation	Guèvremont & Grohmann, 2015; Klink, 2000
		Purchase intention	Maglio et al., 2014
Sound repetition	Processing fluency, affect	Brand/product attitude, purchase intention	Argo et al., 2010
		Product choice	Davis et al., 2016
		Ad attitude	Filkukova & Klempe, 2013
Pronunciation	Processing fluency	Novelty, risk perception	Song & Schwarz, 2009
		Stock market performance	Alter & Oppenheimer, 2006
Voice: pitch and speech rate	Cross-modal sensory correspondence/ semantic association	Product perception	Lowe & Haws, 2017
		Ad attitude	Chattopadhyay et al., 2003; Gelinas-Chebat & Chebat, 1992
Unusual spelling	Attention, processing fluency, affect	Brand memory	Lowrey et al., 2003
		Brand perception	McNeel, 2017
Metaphor	Spreading activation of semantic processing	Product attitude, purchase intention	Ang & Lim, 2006; Cian et al., 2015
		Ad attitude	McQuarrie & Mick, 1999
		Product attitude, choice	Kronrod & Danziger, 2013
		Food consumption	Yang et al., 2019
		Portion size choice	Gao et al., 2020
		Stock price prediction	Morris et al., 2007

air stoppage by closed articulators (e.g., "t," "k"), are associated with similar perceptions as back vowels (French, 1977).

These simple phonetic associations influence a large array of consumer judgments, such as brand name preferences (Baxter & Lowrey, 2014; Shrum et al., 2012), product perceptions (Klink, 2000), attitudes (Yorkston & Menon, 2004), recommendations (Guèvremont & Grohmann, 2015), willingness to pay (Maglio et al., 2014), and risk assessment (Botner et al., 2020). Phonetic symbolism is most effective (i.e., most persuasive) when the sound-symbolic perceptions are congruent with the expected or preferred attributes of the associated products. For example, brand names with front vowel sounds (higher pitched), which are associated with concepts such as smaller, faster, and sharper, are preferred over brand names with back vowel sounds (lower pitched) for products such as sports cars and knives, but the opposite is true for products such as SUVs and hammers (Lowrey & Shrum, 2007). Notably, many phonetic symbolism effects appear to be robust across languages (Pogacar et al., 2017; Shrum et al., 2012), and certain sounds are even associated with better brand performance (Pogacar et al., 2015).

Sound Repetition

Some words (or phrases) have repetitive sounds. For example, alliterative words are ones in which the initial stressed sound in a syllable or word is repeated (e.g., Bed Bath and Beyond, Coca-Cola). Alliteration often has positive effects on consumer evaluations. For example, alliterative price promotions were evaluated more favorably than nonalliterative ones (e.g., 3 Theybles $30 vs. 3 Theybles $29; Davis et al., 2016), even though the nonalliterative promotion was a better deal. Similar effects have been noted for brand names that have repeated sounds across syllables (Argo et al., 2010).

Rhyme is also an example of sound repetition. Brand names often use rhyme (e.g., 7-Eleven, Lean Cuisine), which has a number of positive effects on marketing outcomes, including increased recall (Carr & Miles, 1997), more favorable product evaluation, and more positive affect (Argo et al., 2010). Rhyme can even influence perceptions of truthfulness. For example, in one classic study, rhyming aphorisms (e.g., "woes unite foes") were rated as more truthful than equivalent but nonrhyming aphorisms (e.g., "woes unite enemies"; McGlone & Tofighbakhsh, 2000). Subsequent research demonstrated the effect in consumer contexts: Rhyming product slogans were better remembered, better liked, more persuasive, and considered more trustworthy compared with similar but nonrhyming slogans (Filkuková & Klempe, 2013).

Pronunciation

Consumers often make judgments simply on the basis of how easy a word (or brand name) is to pronounce. Easier to pronounce words are easier to process than harder to pronounce words (i.e., greater processing fluency; Schwarz, 2004), and ease of processing has a number of benefits. For example, it influences perceptions of familiarity. Because things that are familiar are usually easier to process, people often erroneously assume that things that are easier to process are more familiar (Schwarz, 2004). Familiarity in turn can influence various types of inferential judgments. For example, things that are more familiar are generally liked better (Zajonc, 1968), and people whose names are easier to pronounce are liked better than those whose names are difficult to pronounce (Laham et al., 2012). In a study on stock performance and processing fluency, stocks whose names were easier to pronounce outperformed stocks whose names were harder to pronounce (Alter & Oppenheimer, 2006).

Ease of processing and familiarity also influence judgments of both novelty and risk. Things that are easier to process are perceived as more familiar, and things that are perceived as familiar are considered less risky but also less novel. In one study, Song and Schwarz (2009) manipulated the ease/difficulty of pronunciation of a carnival ride. Participants perceived the ride with an easier to pronounce name to be less risky than a ride with a more difficult to pronounce name, but they also considered the ride with the easier to pronounce name to be more dull and less adventurous.

Voice: Pitch and Speech Rate

Voice pitch is the reflection of fundamental frequency. A long literature in linguistics and psychology suggests that voice pitch influences a number of judgments (for a review, see Dahl, 2010). For example, people generally evaluate speakers with lower pitched voices more favorably than those with higher pitched voices (Bond et al., 1987) and in particular find the former to be more calm, potent, truthful, and emphatic than the latter (Apple et al., 1979). Similar findings are observed in consumer contexts, with lower voice pitch associated with greater persuasion (Chattopadhyay et al., 2003; Gelinas-Chebat & Chebat, 1992), although in some cases these effects may depend on gender of the spokesperson (Sharf & Lehman, 1984).

Voice pitch also affects perceptions of product size. The effect is conceptually similar to phonetic symbolism effects. For example, Lowe and Haws (2017) manipulated whether a spokesperson's voice in an audio ad for a sandwich was higher or lower pitched, and then asked participants to estimate the size of the sandwich. Participants who heard the ad from the spokesperson with the lower pitched voice estimated that the sandwich would be larger than those who heard the ad from the spokesperson with the higher pitched voice. The effect occurred through a process of visual imagery in which the lower pitch evoked mental imagery of larger products.

Speakers may also differ on how fast they talk, which in turn can affect consumer judgments. Generally, faster speech rates are more persuasive than slower speech rates because people generally prefer speech rates that are slightly faster than normal speed (Chattopadhyay et al., 2003). Slightly faster than normal speakers may be considered more intelligent, knowledgeable, truthful, and persuasive (Miller et al., 1976). However, faster speech rates can also cause negative outcomes because faster speech limits the time people have to process the information, which can impair their attention and recall (Chattopadhyay et al., 2003).

Unusual Spelling

Brand names often employ unusual spellings. Examples include substituting a letter for a word (e.g., U-Haul), dropping a letter that does not affect the desired pronunciation (e.g., La-Z-Boy), using a single letter as a phonetic substitute for a word (e.g., In-N-Out Burger), or misspellings that replace certain letters in a correctly spelled word (e.g., Froot Loops; for a review, see Wong, 2013). Unusually spelled brand names are often more memorable because the oddness of the spellings attracts attention and is unexpected, which increases depth of processing, leading to better brand name recall (Lowrey et al., 2003).

Unusual spellings can also provide meaning and signal brand identity. For example, the use of a single letter as a phonetic substitute for a word (e.g., Toys R Us) or dropping the "g" from "ing"-ending words (e.g., Dunkin' Donuts) connotes casualness, and certain types of misspellings may be related to particular demographic groups (e.g., children, subcultures), which serves for targeting the specific market. However, unusual spellings can also have negative effects if the names are difficult to pronounce and thus increase processing disfluency, which can reduce cross-modal congruency (McNeel, 2017).

Metaphor

At the most basic level, *metaphor* is a type of figurative speech that uses one concept to describe another concept. Metaphors can be used for constructing brand names (e.g., Amazon, Apple), slogans (e.g., Budweiser, the king of beers), and other appeals. However, metaphor is more than just a connection between two superficially dissimilar concepts; metaphor is a cognitive mapping tool that aids understanding of complex concepts by using a source concept that is relatively concrete and easy to grasp to conceptualize a target concept, which is typically more abstract and difficult to grasp (Landau et al., 2010, 2018). In fact, this description serves as a metaphor that likens comprehension or understanding of an entity (abstract concept) to a sensorimotor state of grasping an object (concrete concept).

Consider the metaphor "love is sweet," which conceptualizes the abstract concept of love in terms of a concrete sensory taste concept of sweetness. This concept mapping guides subsequent

information processing. For example, priming love through romantic stimuli increased intentions to consume sweet foods (but not nonsweet foods) but only for those who tended to think abstractly (vs. concretely; Yang et al., 2019). Similarly, priming the conceptual metaphor of fullness reduced perceptions of hunger and decreased portion size choice (Gao et al., 2020). In another study, Cian et al. (2015) used conceptual metaphor theory to test the proposition that people tend to associate rationality higher on a vertical dimension compared with emotion, and this metaphoric association influences judgments about placement on webpages. In one experiment, participants were given a blank webpage and asked to place a particular content section anywhere on the page, and the content was manipulated to be more rational (science section) or emotional (music section). Consistent with metaphor transfer effects, participants placed the science section higher on the webpage than the music section.

Metaphors can positively influence product attitudes and purchase intentions (Ang & Lim, 2006; McQuarrie & Mick, 1999). For example, metaphors are more persuasive than literal language for writing consumer reviews for hedonic products (Kronrod & Danziger, 2013). Metaphors can also influence consumers' expectations and predictions. Using agent metaphors (relating to action or movement) to describe a current day stock price trend increased expectations and predictions of a continuing future trend (Morris et al., 2007).

In summary, there are numerous linguistic factors that affect how consumers process information. In this section, we have focused on factors whose effects generally occur within-person. That is, they occur in individual responses to marketing communications. Communicators—whether they be marketers, politicians, job candidates, or product reviewers—will benefit from understanding how these linguistic factors work, the conditions that maximize their effectiveness, and the situations that limit their effectiveness. In the next section, we turn to communications that are typically social in nature; that is, involving communication between persons or referencing social relationships.

SOCIAL PROCESSES AND LANGUAGE

People regularly engage in social communications, and many of these interactions occur in consumer contexts. For example, marketing communications may reference a social relationship with the consumer (e.g., "we're in this together"). Consumers may also communicate with each other (e.g., product reviews, word of mouth) or with marketers (e.g., consumer complaints). Consumer-related communications are often influenced by norms and resulting expectations. For instance, the relationship between communicator and listener (e.g., close vs. distant) creates normative expectations. Violation of these expectations (often unexpected or unintended) can have detrimental effects on the social relationship. Similarly, communicating in ways that are normatively appropriate can enhance the social relationship. The same applies to business communications, whether they are communications between consumers or between consumers and firms.

In this section, we provide a selective review of research that investigates social communications in consumer contexts. We organize our discussion around three key areas: social referents, language tone, and contagion effects. We also discuss figurative and complex language and the influence of message generation on communicators. Table 19.2 provides a summary of the findings.

Social Referents

Language can denote people, objects, or states indirectly via referent words (e.g., "she" or "they" in place of a person's name) or symbols (e.g., a smiley-face in place of text). Next we discuss several examples relevant to consumer psychology.

Pronouns. Pronouns (e.g., "I," "you," "we") and other particles (e.g., "the," "on," "it") account for the vast majority of words people use in both written and oral communication. Although it is tempting to view them as relatively innocuous, they can actually be quite influential. The pronouns people use to communicate are more than just substitutes for proper nouns. Frequently, their use conveys assumptions about social relations, and thus

TABLE 19.2

Summary of Findings: Social Processes

Linguistic factor	Mechanisms	Effects	Reference
Pronouns	Expectations, social norms	Brand attitude	Sela et al., 2012
	Agency, empathy perceptions	Satisfaction, purchase intention, behavior	Packard et al., 2018
Emoticons	Warmth, competence perceptions	Satisfaction, purchase intention, behavior	Li et al., 2019
Assertive language	Expectations	Compliance intentions	Kronrod et al., 2012a
		Compliance intentions, behavior	Kronrod et al., 2012b
		Ad, brand attitude, monetary allocation	Zemack-Rugar et al., 2017
Asynchronous word of mouth	Self-enhancement motivation	Information sharing	Berger & Iyengar, 2013
Consensus language	Consensus group size perceptions	Behavior (click-through rate)	Lee & Kronrod, 2020
Linguistic complexity	Elaboration	Brand recall, recognition, attitude	Lowrey, 1998
Explaining language	Narrative building	Evaluation, behavioral intention	Moore, 2012
	Expectation, social norms	Recommendation, choice	Moore, 2015

understanding these assumptions and their relations to norms and expectations is crucial for facilitating social interactions.

Pronouns generally serve a self-referencing function in persuasive communications (processing information in relation to the self). In particular, pronouns are used to imply or reflect social relationships (Kacewicz et al., 2014). Pronouns also suggest the closeness of a relationship. For example, the use of "we" suggests a closer relationship than does the use of "you and I" (G. M. Fitzsimons & Kay, 2004; Simmons et al., 2005). Implying closeness can enhance persuasion but only if the receiver thinks the closeness implication is appropriate. Thus, couples might refer to themselves as "we," but one's mortgage broker is less likely to use the same intimate pronoun. If they do, it may not be well received if the closeness implication is inaccurate. Consider a study conducted by Sela et al. (2012), who asked participants to imagine they were customers of Cellcom, a phone service provider, and manipulated whether that relationship was considered a close or distant one. Then, they had participants read a persuasive communication from Cellcom intended to create more positive attitudes, but they varied pronoun usage ("we" vs. "you and Cellcom"). When the relationship between Cellcom and the customer (participant) was perceived as close, participants evaluated the brand more favorably when the marketing communication used the "we" pronoun rather than "you and Cellcom," but the reverse was true when the relationship was perceived to be a distant one.

Pronouns can also communicate important information apart from social relations. For example, marketers often discourage the use of first-person pronouns ("I") in marketer-to-consumer communications and instead encourage the use of "we" and "you" in order to emphasize the customer and downplay a focus on the self (in this case, the marketer). However, in a series of studies, Packard et al. (2018) showed that not only is this conventional wisdom misguided but the use of the first-person pronoun has distinct advantages. In particular, the usage of the first-person "I" on the part of the firm or salesperson increases perceptions that the firm or salesperson has agency and empathy for the customer. Consequently, the use of singular self-referencing ("I") increased consumer satisfaction, purchase intentions, and purchase behavior compared with the use of "we."

Emoticons. Emoticons are a form of *textual paralanguage*, which refers to written manifestations of nonverbal cues, such as symbols and images (Luangrath et al., 2017). In many ways, emoticons function similarly to pronouns in terms of interpersonal communication norms. For example, service employees who use emoticons (e.g., ☺) are perceived as warmer than those who don't, and customers are subsequently more satisfied with the service provided when emoticons are used. However, again, the violation of norms and expectations has consequences. For instance, whether service employees' use of emoticons increases customer satisfaction depends on whether the emoticons are considered appropriate to the customer–service provider relationship (Li et al., 2019). Thus, when a consumer expects a communal relationship with their service provider, emoticons are consistent with this expectation and convey the expected care (e.g., Domino's Pizza's use of emoticons on social media). However, when customers do not have communal relationship expectations, emoticon use can backfire, causing more negative evaluations of competence (e.g., Goldman Sachs's use of emoticons in its 2015 company report).

Language Tone

Grice's (1975) principle of cooperation posits that people expect their conversation partners to adhere to certain rules of conversation. These include "cooperating" so that the conversation succeeds and both participants comprehend each other's intended meanings. This expectation leads to positive consumer responses when fulfilled and negative responses when violated (P. Brown & Levinson, 1987; Forgas, 1998). However, although the benefits of tailoring conversations, and messages more generally, to meet receiver expectations is intuitive and straightforward, actually understanding what those expectations are is not always straightforward. In this section, we review research on language tone—specifically, assertive language tone—in marketing communications, with an emphasis on how alignment with expectations has facilitating and positive effects on marketing outcomes.

Assertive language refers to language that is direct, commanding, and forceful in tone. Marketers routinely use assertive language in various types of communications, such as slogans ("Just do it") and ad appeals ("Buy now!"). However, research across a number of disciplines suggests that such forceful language may reduce compliance and persuasion in many situations (Dillard & Shen, 2005; G. J. Fitzsimons & Lehmann, 2004; Quick & Considine, 2008), and these situations often involve mismatches in consumer expectations. For example, although assertive language has positive effects on compliance for hedonic products, for utilitarian products, assertive language is actually counterproductive (Kronrod et al., 2012a). The reason for the difference can be traced to the interplay between language and mood. People in positive moods expect others to address them with direct, assertive language because when people are in positive moods, they themselves tend to use more assertive language, and hedonic products are more associated with positive mood than are utilitarian products.

Assertive language can also impact persuasion apart from expectation congruity. For example, the effectiveness of assertive language can depend on whether a particular message is considered praising or scolding (Grinstein & Kronrod, 2016). Assertive language is more effective when praising, whereas nonassertive language is more effective when scolding. This occurs because assertive praising language intensifies the positive meaning, whereas nonassertive language attenuates the negativity of scolding, thereby making it more palatable. Nonassertive praise is less effective because it seems halfhearted, and assertive scolding is less effective because it seems too harsh. These findings are particularly consequential for contexts such as financial planning and medical compliance.

Assertive language is more persuasive when consumers believe the issue at hand is important. For instance, assertive environmental messages work well for consumers who already believe environmental issues are highly important (e.g., "Reducing air pollution: Everyone must use more public transportation!"), but for those who don't, less assertive messages work better (e.g., "Reducing air pollution: Everyone could use more public transportation"; Kronrod et al., 2012b). For those who think the particular message issue is unimportant, the

assertive message produces psychological reactance that increases message counterarguing (Brehm, 1966).

Finally, assertive language can lead to reactance (in ways similar to intimate pronoun use) when expectations are not met or norms are violated. For example, assertive slogans like "Just do it!" vary in effectiveness, depending on consumers' relationships with brands (Zemack-Rugar et al., 2017). Consumers who perceive themselves as being in a committed relationship with the brand experience stronger compliance norms, and therefore assertive ads create greater pressure to comply for committed consumers. Committed consumers expect to feel guilty if they ignore an assertive message and therefore feel pressured to comply. This pressure increases reactance, which paradoxically reduces compliance, leading to reduced preference for assertive ads and associated brands as well as decreased spending on the brand for committed consumers.

Contagion Effects

Social contagion refers to the spread of information through people's social networks. This is primarily a function of word of mouth. *Word of mouth* refers to product- or brand-related discussions (e.g., "The latest *New Yorker* has an interesting cover"), sharing brand-related content (e.g., *New Yorker* cartoons on Twitter), recommendations (e.g., "You should read this *New Yorker* article"), and mere mentions (e.g., "I read the *New Yorker*"). According to Berger (2014), word of mouth serves five key functions: impression management, emotional regulation, information acquisition, social bonding, and persuasion. Furthermore, the medium of communication influences the degree to which these functions motivate word of mouth. People using written modes of word of mouth are more likely to mention highly interesting products and brands, compared with people engaging in spoken discussions, because of communication asynchrony (the delay between message and response; Berger & Iyengar, 2013). The delay is longer in written communications, which allows writers to carefully deliberate and thus decide on more interesting topics.

Self-enhancement—the desire to enhance others' esteem for oneself—also plays a role by prompting communicators to spend more time polishing written communications and focusing on topics that are as interesting as possible. For example, in one experiment, Berger and Iyengar (2013) manipulated whether participants wrote about a brand (instant messenger), talked about a brand (face-to-face), or talked about a brand asynchronously (told to wait at least 5 seconds before responding to their partner). Participants mentioned a larger number of interesting products and brands when they wrote about a brand than when they talked about the brand naturally. However, participants who talked asynchronously also discussed a greater number of interesting products than those in the synchronous conversations, indicating that it is the asynchrony of communication that allows people to focus on self-enhancement and thus produce more interesting word of mouth.

Consensus language—which suggests general agreement among people on a product or behavior (e.g., "everyone loves this documentary")—has important consequences for contagion. Although communication from strong ties (e.g., family, close friends) on sites like Facebook is generally more contagious (Aral & Walker, 2014), consensus language is more influential when used by weak ties (e.g., distant friends, acquaintances). For example, in one experiment, Lee and Kronrod (2020) had confederates send private Facebook messages to five strong and five weak ties, half with consensus language in the message and half without. When recipients got a message from a weak tie confederate using consensus language (e.g., "everyone is talking about . . . "), recipients were more likely to click through to the linked news article than recipients who received the same message from a strong tie confederate. However, when confederates did not employ consensus language, click-through rates did not differ for strong and weak ties. The weak ties were more influential because they suggested a larger and more diverse group in consensus.

Figurative and Complex Language

Consumers' expectations also shape their responses to language that is figurative and metaphorical ("pizza as big as the moon") versus literal ("14-inch pizza"). Norms for figurative versus

literal language vary for advertiser-generated and consumer-generated content. Conversational norms dictate that advertising should use artful wordplay, whereas user-generated content is expected to reflect a sincere opinion. Further, figurative language is the norm—and therefore more effective—for hedonic than utilitarian products. Because of these different expectations, consumer reviews with more figurative language lead to more favorable attitudes for hedonic than for utilitarian products (Kronrod & Danziger, 2013).

The degree to which people are willing or able to process complex language also produces different expectations. For routine decisions, such as ordering coffee, people expect and prefer simple advertising language. However, when people are highly involved in a consumer decision (e.g., buying a car), their motivation to process information is higher, and they are more willing to engage with complex language to access the information they seek. Thus, high-involvement consumers may be more willing to engage with complex sentence structure (i.e., syntax; Lowrey, 2006). For example, although complex advertisements are not preferred for most routine communications, complex syntax leads to more favorable attitudes than simple syntax when involvement with the message is high because motivation to process ad information increases message elaboration (Lowrey, 1998).

Influence of Language on Communicators

The process of articulating a word-of-mouth message can also impact the writers of word-of-mouth transmissions because language facilitates information processing (Moore & Lafreniere, 2020). For example, people who use explaining language (explanations for why an experience occurred) demonstrate a greater understanding of their consumption experience than those who do not use explaining language because cognitive processes such as narrative building help them make sense of the events (Moore, 2012). Interestingly, understanding has different effects on hedonic and utilitarian experiences. Enhanced understanding dampened consumers' evaluations of both positive and negative hedonic experiences, but it polarized evaluations of both positive and negative utilitarian experiences.

Word-of-mouth explanations can also vary in terms of what they explain. For example, in writing product reviews, communicators might explain their actions (why they chose a product) or their reactions (how they feel about the product). The types of explanations by review writers differ for hedonic and utilitarian products. Review writers tend to provide action explanations for utilitarian products but provide reaction explanations for hedonic products (Moore, 2015). They provide these different types of explanations because consumers find explained actions more helpful for utilitarian than for hedonic products but find explained reactions more helpful for hedonic than for utilitarian products. In other words, the differences occur because review writers are trying to be helpful to their audiences.

In summary, language influences both communicators and receivers via referents, tone, and contagion. In this section, we have discussed how norms and expectations play an important role in determining the effects of language use in consumer contexts, particularly in social communication. Given that the effectiveness of the use of certain types of language conventions is driven by these expectations, and positive effects emerge when expectations are met, it is crucial that communicators understand the expectations of their audience. In the next section, we turn to the effects of language on cultural processes and, in particular, focus on the effects of cross-linguistic differences.

CULTURAL PROCESSES AND LANGUAGE

Consumer research on cross-linguistic differences can be broadly categorized in terms of two research streams. The first stream of research focuses on bilingual consumers and the extent to which they respond differently to consumption contexts involving different linguistic factors (e.g., marketing slogans that activate one of their languages). The second stream of research focuses on the effects of differences across languages in grammatical structure and writing systems on consumer judgment

and decision making. Both streams of research draw on the Sapir-Whorf hypothesis of linguistic relativity and extend it to consumer contexts. According to the Sapir-Whorf thesis, languages provide different schemas through which the world is perceived and interpreted (Whorf, 1952). As a result, each culture has its idiosyncratic worldview, which influences the way individuals perceive, think, and act.

Although the debate continues about the extent to which language exerts an influence on behavior, empirical evidence suggests an interactive relation between language and behavior in several domains, including color perception (Roberson et al., 2008), time perception (Casasanto & Boroditsky, 2008), emotions (Gendron et al., 2012), and motion (Meteyard et al., 2007). As we detail in the next sections, consumer research studying cross-linguistic differences has also provided theory-consistent evidence by empirically testing the Whorfian link between language and memory structures. Table 19.3 provides a summary of the research findings.

Bilingualism

With English being the new lingua franca, and the world being more globalized than ever before, studying languages no longer pertains strictly to linguistics. More than half of the world's population speaks more than one language, making bilingual consumption contexts increasingly prevalent. The exponential increase in economic growth rates of emerging markets, coupled with sensitivity to minority groups in developed markets, has fueled interest in consumer research to understand how bilingual consumers process information and respond to bilingual consumption contexts. Consumer research on bilingualism can be categorized into two areas: a sociolinguistic or a psycholinguistic approach.

Sociolinguistic approach. Research adopting the sociolinguistic perspective has focused on the signaling functions of native (minority) languages in advertising targeted at ethnic minority groups. One prominent research area pertains to the effects

TABLE 19.3

Summary of Findings: Cultural Processes

Linguistic factor	Mechanisms	Effects	References
Code-switching	Expectations, social norms	Ad attitude, brand attitude	Koslow et al., 1994; Krishna & Ahluwalia, 2008; Luna & Peracchio, 2005
Second-language processing	Retrieval fluency	Ad recall	Luna & Peracchio, 2001, 2002, 2005
		Brand name evaluation	Zhang & Schmitt, 2004, 2007
		Emotional intensity of ad messages	Puntoni et al., 2009
		Rating scale extremity	De Langhe et al., 2011
		Emotional intensity and endowment	Karatas, 2020
		Judgment, choice	Schmitt & Zhang, 1998
		Brand recall, brand attitude	Yorkston & De Mello, 2005
Grammatical structure	Categorization	Future-related behavior	Chen, 2013
		Anthropomorphism, ad attitudes, choice	Mecit et al., 2018
		Brand attitude	Pan & Schmitt, 1996
		Brand recall	Schmitt et al., 1994; Tavassoli & Han, 2001
Writing system	Fluency, matching	Brand name evaluation	Tavassoli, 2001

of mixing languages within a communication, often referred to as *code-switching* (Luna & Peracchio, 2005; for a review, see Carroll et al., 2007). The general finding is that code-switching can have positive effects, under certain conditions. For example, consumers in a minority subculture respond favorably to code-switching in advertising because it signals solidarity with the minority group (Koslow et al., 1994). However, relying solely on the ethnic language has little effect because consumers do not attribute the use of their ethnic language to cultural sensitivity of the advertiser. Similar asymmetric effects have been observed in corporate communication contexts, although the findings depend on whether the firm is local or multinational (Krishna & Ahluwalia, 2008).

One way in which code-switching affects persuasion is by making the code-switched word more salient (Luna & Peracchio, 2005). For example, in an advertising context, inserting an English word in a Spanish slogan (e.g., "En mi *kitchen* nunca haría café con ninguna otra cafetera") or inserting a Spanish word in an English slogan (e.g., "In my *cocina* I would never make coffee with any other coffeemaker") directs attention to the code-switched term ("kitchen" and "cocina") and leads to elaboration on the schema of the code-switched language. Accordingly, code-switching affects consumer evaluations, depending on whether consumers have favorable or unfavorable associations with the language activated.

Psycholinguistic approach. Consumer research adopting the psycholinguistic approach has focused on the information processing consequences of language use on memory (Ahn & Ferle, 2008), emotions (Puntoni et al., 2009), and judgments (Karatas, 2020). Researchers adopting this approach mostly rely on the revised hierarchical model of bilingual language processing to test their predictions in consumer contexts. According to the model, bilingual individuals store words in their native and second language independently at the lexical level; however, they access the same semantic representation (Dufour & Kroll, 1995). Empirical tests of this model have demonstrated that conceptual links between the lexical representation in one's native language and the semantic representations in memory are stronger than the links between the lexical representation in one's second language and the semantic representations. Luna and Peracchio (2001) confirmed this finding in the context of advertising to bilinguals and advanced the model by showing that text-congruent images facilitate processing of second language messages. Images, therefore, can be used by advertisers to offset the effect of language asymmetries on memory.

Second-language proficiency also plays a crucial role in processing bilingual information (Zhang & Schmitt, 2004, 2007). When individuals learn words in the second language, they tend to relate the words to their equivalents in their first language. This association on the lexical level makes the activation of equivalent words in the first language necessary to represent concepts on the semantic level. The asymmetry in the strength of links connecting the first and the second languages to conceptual representations on the semantic level decreases as proficiency in the second language increases (Dufour & Kroll, 1995). In a similar vein, there are other moderators that offset the asymmetrical effects of bilingualism on memory, such as processing motivation (Luna & Peracchio, 2002) and attitude toward the language (Luna & Peracchio, 2005).

Proficiency in a second language affects not only the asymmetry in the strength of links but also the reliance on the mode of representation. In some languages, such as Chinese, words tend to be processed semantically, whereas in others, such as English, words tend to be processed phonologically (Hung & Tzeng, 1981). Consequently, consumers who are fluent in both Chinese and English favor the phonetic translation when the English name is emphasized, but favor the semantic translation when the Chinese name is emphasized. However, consumers who are bilingual but not proficient in English prefer the semantic translation in both conditions (Zhang & Schmitt, 2004). These results provide further evidence of the effect of language asymmetries on memory.

In addition to memory effects, the language triggered by the consumption context can affect bilingual consumers' perceptions of how emotional the message is. For example, marketing slogans

expressed in consumers' native languages tend to be perceived as more emotional compared with messages in their second language (Puntoni et al., 2009). This effect occurs because experiences are stored as elements of an episodic memory trace, and recall leads to an echo of emotions that people have experienced during these episodes. Because words that people encounter more frequently are part of a greater number of episodic traces, messages in one's native language are more likely to lead to a stronger echo of emotions compared with messages in a second language, because people are more familiar with the words in their native language than in their second language. This general process affects judgments. For example, thinking in a second (vs. native) language diminishes the impact of affective evaluations of products, leading to a lowered sense of psychological ownership. Thus, asking consumers to make judgments in their second language in effect attenuates the endowment effect (Karatas, 2020).

This difference between one's native and second language can systematically influence how people respond to scales that probe emotional processes. Processing information in one's native language elicits more intense emotional states compared with information processed in a second language (Puntoni et al., 2009). Consequently, and somewhat counterintuitively, this results in the use of more intense (extreme) responses to emotional scale anchors (e.g., happy and sad) when responding to items using rating scales in a second language compared with scales in one's native language (De Langhe et al., 2011). Because the emotional anchors are experienced as less intense in a second language, respondents choose more extreme responses in order to convey their true emotions. This finding is particularly important for researchers who administer scales in participants' second language.

Cross-Cultural Differences and Language

A significant component of cross-cultural consumer research focuses on language effects (cross-linguistics). This research is generally based on the premise that language shapes the way people perceive and understand the world and that cross-linguistic differences can be used to trace cultural differences in reasoning styles (Logan, 1986; Whorf, 1952). In the following section, we review consumer research on cross-linguistics, which we broadly categorize into two major areas: cross-linguistic differences in grammatical structure and writing systems.

Grammatical structure. In line with the Sapir-Whorf thesis, cross-linguistic differences in grammatical structure influence consumer behavior and decision making in many areas. For example, classifiers affect consumers' categorization structures (Schmitt & Zhang, 1998) and retrieval processes (Yorkston & De Mello, 2005). *Classifiers* are words that accompany a noun and "classify" it and are relatively rare in English. For example, in Chinese, the classifier *zhi* is used for pen, pencil, and chopstick and *ke* for tree, sunflower plant, and wheat. However, in Japanese, only one classifier is used for all six objects, and in English, such classifiers are nonexistent. In a study comparing Chinese, Japanese, and English, Schmitt and Zhang (1998) demonstrated that the presence or absence of classifiers and their structures in these languages affects the way objects are categorized, which in turn influences product choice when the consideration set includes options with positively valenced classifiers. From a different perspective, yet applying the same concept, Yorkston and De Mello (2005) investigated the effects of linguistic gender marking on memory and categorization. In a study comparing Spanish speakers to English speakers, they demonstrated that for Spanish speakers, cues that are consistent with the grammatical gender of the brand name enhance brand recall.

Languages can also differ on how they reference future time. Some languages, such as English, use a strong, obligatory future tense ("I will go to the store tomorrow"), whereas other languages, such as Mandarin, do not ("I go to the store tomorrow"). Thus, future-time markings in a sentence serve to disassociate the future from the present moment, whereas lack of future-time markings results in an association between the present and the future. These simple grammatical differences can have important effects on downstream judgments. For

example, the speakers of languages with obligatory future tenses (which disassociate present from future) engage in less future-oriented behavior than speakers of languages with no obligatory future tense (Chen, 2013). Hence, speakers of these languages may engage in behaviors that are not beneficial for their future selves. As a result, compared with Mandarin speakers, English speakers save less for retirement and engage in more risky behaviors (e.g., unprotected sex) that may jeopardize their well-being in the future.

Similarly, some languages differ on whether they have different pronouns for human and nonhuman entities. Some languages, such as English, distinguish between humans (he, she) and nonhumans (it), whereas other languages, such as French, do not. In French, the same pronouns (*elle*, *il* [she, he]) are used to refer to both humans and nonhumans. The presence (vs. absence) of a specific pronoun for nonhuman entities has interesting effects. For example, speakers of languages (French, Turkish) that do not distinguish between humans and nonhumans ("it-less" languages) anthropomorphize more than do speakers of languages that do distinguish between humans and nonhumans, such as English (Mecit et al., 2018).

Writing systems. A *writing system* refers to the way a language is coded in graphic units. Like grammar, writing systems vary greatly across languages. Linguistic research classifies languages into three major categories in terms of their writing system: languages using alphabetic characters (e.g., English, Russian), languages using syllabaries (e.g., Japanese, Cherokee), and languages using logographic characters (e.g., Chinese). In languages using alphabetic characters, every grapheme (letter) represents a subsyllabic unit of speech and has a corresponding phoneme (sound). In contrast, in languages using logographic characters, each character or symbol refers to meaningful concepts and not to a phoneme.

This loose association between the character and the sound in Chinese (vs. a close association in English) affects judgments. For example, Pan and Schmitt (1996) demonstrated that the match between sound and brand associations drives consumers' attitudes for English brands, whereas the match between script and brand associations affect consumers' attitudes for Chinese brands. They operationalized sound matching by using a male voice for a masculine product and a female voice for a feminine product (vice versa for sound mismatch). Similarly, script matching was operationalized by using a male script for a masculine product, a female script for a feminine product, and vice versa for script sound mismatch. Participants then evaluated brand names associated with either masculine (e.g., a tie) or feminine (e.g., a lipstick) product categories. Chinese speakers preferred the script-matching stimuli, whereas English speakers preferred the sound-matching stimuli. In contrast to previous research that found preference for moderate incongruity (e.g., Meyers-Levy et al., 1994), participants in both cases (Chinese and English speaking) preferred the more congruent stimuli because the process is automatic rather than deliberative.

Differences between Chinese and English writing systems also affect the way brand names are learned and remembered in these languages. In Chinese, mental representations of verbal information tend to be coded visually, whereas in English they tend to be coded phonologically. Therefore, unaided brand recall is affected depending on whether the verbal information is spoken or written (Schmitt et al., 1994). Avoiding cross-cultural confounds, another study replicated and extended these findings by comparing Korean written in the alphabetic Hangul to Korean written in the logographic Hancha (Tavassoli & Han, 2001). Because speakers of languages with logographic writing systems rely more on their visual memory compared with speakers of languages with alphabetic writing systems, the associations participants had with print colors had a greater impact on their evaluations of logographic brand names than of alphabetic brand names (Tavassoli, 2001).

INTEGRATION AND FUTURE RESEARCH

Consumers process scores of communications every day, whether in the form of marketer-to-consumer communications, such as ads, or

consumer-to-consumer communications, such as product reviews and word-of-mouth transmissions. Both marketers and consumers surely give careful thought to what they want to say so that their communications are maximally effective. Clearly, what is said matters. In this chapter, we argue that it is not just what is said that matters but also *how* it is said. We have reviewed research that demonstrates how subtle variations in how an argument, or even just a brand name, is presented can have important effects on all aspects of consumer thought. We have organized our review in terms of the general levels of processing that underlie these linguistic factors and their effects: cognitive, social, and cultural. This organizing framework is arguably arbitrary and imprecise, and the different categories are often overlapping rather than independent; it is meant only as an organizing heuristic.

Although the research we have reviewed demonstrates the remarkable diversity and ubiquity of linguistic effects, there are some things they have in common. One is that the effects of the various linguistic factors are often very subtle and also often automatic. That is, consumers may be less consciously aware of the effects, and thus their responses are relatively uncontrollable (e.g., phonetic symbolism, sound repetition, pronunciation). In other cases, even when the processes are more controlled, are observable, and require elaborative thought, consumers are often unaware of the full range of effects and their underlying reasons (e.g., pronoun use, assertive language, code-switching). This lack of awareness of the effects of various factors on consumer judgments makes them potentially very effective tools for marketers. However, the effects of the linguistic factors are often not intuitive and can even backfire. Thus, their effective use requires a thorough understanding of what the factors do and how they do it. Providing this understanding is a primary objective of this review.

A second commonality that emerges is that there are clear boundary conditions for the linguistic effects. That is, sometimes linguistic factors are effective; sometimes they aren't. Although some boundary conditions may be idiosyncratic to the specific factors or idiosyncratic to the underlying processes, one common boundary condition relates to congruence, or fit, with expectations. For example, how a brand name sounds (high vs. low pitch) has symbolic connotations that influence liking for the name and the product itself. But liking is dependent upon the fit with the symbolic connotations and the expected or preferred attributes: The better the fit, the greater the liking.

The same fit effects are also noted for more complex communications, particularly interpersonal ones. For example, the choice of pronouns used in communications matters. Certain pronouns, such as "we," "I," and "us," influence perceptions of the communication and also the communicators. But again, sometimes the same pronoun ("we") is effective, sometimes not, and effectiveness is dependent upon the fit between the appropriateness of the pronoun and the perceptions of the closeness of the relationship. Emoticons often increase perceptions of warmth but only when they fit the appropriateness of the situation. Code-switching has positive persuasive effects but only when receivers' perceptions of the communicator (e.g., brand, company) fit with their expectations about the relationship.

As with any review chapter, documenting what is known about a topic also can expose what is not known, which represents future research questions. In terms of the research discussed in the cognitive processes section, one question pertains to the origins of effects such as phonetic symbolism. That is, how does this general effect arise? One possibility is that associations, such as size and sound, are learned over time. If so, then one would expect to see differential age effects during the developmental stage (i.e., not observable in young children, but the effects increase with age). One might also expect to see cultural differences in both the existence and the strength of the association. A second possibility is that the effects are innate and thus present at birth, and the effects occur through pure neural connections. This possibility may arise because certain associations (again, sound and size) may have evolutionary benefits and thus are selected for over generations (Shrum & Lowrey, 2007; for a review of possible mechanisms, see Sidhu & Pexman, 2018). Another question is whether two distinct processes govern phonetic symbolism, such as the fit between sounds and concepts (e.g., Yorkston

& Menon, 2004) versus simple sound preferences (e.g., Pogacar, Kouril, et al., 2018; Pogacar, Shrum, & Lowrey, 2018).

With respect to research falling under the social processes section, two questions emerge. The first concerns violations of expectations. As just noted, fit with expectations is generally a requirement for maximizing effectiveness (e.g., positive marketing outcomes). However, are there situations in which violations of expectations may actually have positive effects? For example, unexpected communication might also stimulate deeper processing and thus may be effective for high-involvement situations or enhancing memory. A second question is whether and how the fast-evolving pace of technology impacts consumers' communications (e.g., writing product reviews online, communicating with artificial intelligence products). Readers may have already observed a heightened tolerance for misspellings and autocorrect errors, a seemingly pathological aversion to commas (presumably arising from a texting culture), and acronyms such as "LOL" increasingly becoming part of everyday speech. Could other characteristics of technologically mediated communication also become norms? For instance, the rapid and direct style of online communication may change long-standing norms of etiquette for in-person communication. Similarly, might the shift from more personal modes of conversation (e.g., face-to-face) to less personal ones (e.g., text and email) influence the nature of our relationships? Perhaps future generations will replace a smaller number of strong social ties with larger networks of weaker ties. What might be the implications of such a shift for society?

With respect to cultural processes and language, two questions come to mind. One pertains to bilingual consumers. It is both theoretically and practically relevant to determine whether thinking in a second language affects both memory-based preferences (i.e., based on the consideration set retrieved from memory) and stimulus-based preferences (i.e., based on the choice alternatives present in the environment) of bilingual consumers. For example, for a bilingual consumer who has seen ads for perfumes in English compared with French language contexts, the word "perfume" in English might evoke a different consideration set for perfumes than the word "parfum" in French. Therefore, consumers' consideration sets can involve different perfume brands in different language contexts. Both theory and practice would benefit from a better understanding of which conditions and for which kind of consideration set this differential activation can affect preference.

On top of its practical implications for marketers, theoretically, research in this area can contribute to the debate on the extent to which language influences thought. A second question is how processing advertising messages in a second language affects consumption-related constructs. Given that languages differ widely in the way they conceptualize time (Chen, 2013), one promising question is to what extent processing messages in a second language affects consumers' time perception and their intertemporal decisions. This line of inquiry can further build on consumer cognition models and allow us to identify systematic grammar-based cross-cultural differences in intertemporal choice models.

Finally, one implication of the general findings on the effects of linguistic factors concerns the methods used to test linguistic effects. In particular, automatic text analysis tools are becoming increasingly popular because they can quickly and efficiently quantify natural language along a number of dimensions. However, current automatic text analysis tools (or natural language processing tools) mainly focus on content analysis and sentiment analysis. Given the findings we have just reviewed on the effects of various linguistic factors (e.g., phonetic symbolism, metaphor, grammatical structures), integrating these factors into text analysis tools would be greatly beneficial to researchers by providing more parameters by which to evaluate language effects.

Language is fascinating. It is something we at times take for granted (it's just how folks communicate) and at other times struggle with (how to write a persuasive communication). Learning new languages, and visiting new cultures, expands our knowledge about the forms and functions of language. Our objective in this review was to showcase the complexity and diversity of language

in consumer contexts, expand knowledge about the effects of linguistic nuances, and ideally pass on our fascination to new readers, who will someday contribute to the development of answers for new research questions.

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