

Language and Consumer Psychology

Ruth Pogacar
University of Calgary

Alican Mecit
HEC Paris

Fei Gao
Bentley University

L. J. Shrum and Tina M. Lowrey
HEC Paris

Author Note

Ruth Pogacar, Department of Marketing, Haskayne School of Business, University of Calgary, Alberta, Canada; Alican Mecit, Department of Marketing, HEC Paris, Jouy-en-Josas, France; Fei Gao, Department of Marketing, Bentley University, Waltham, Massachusetts, USA; L. J. Shrum, Department of Marketing, HEC Paris, Jouy-en-Josas, France; Tina M. Lowrey, Department of Marketing, HEC Paris, Jouy-en-Josas, France.

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Correspondence concerning this article should be addressed to Ruth Pogacar, Department of Marketing, Haskayne School of Business, University of Calgary, Scurfield Hall, 2500 University Dr. NW, Calgary, AB T2N 1N4, Canada. Email: ruth.pogacar@haskayne.ucalgary.ca
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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), 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 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 vast 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 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 informs 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 (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, etc.) 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 consumers' cognitive processes. Table 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-pitch sounds are associated with concepts such as sharper, faster, smaller, lighter, higher pitch, psychologically closer, and more feminine, whereas lower-pitch sounds connote the opposite (duller, slower, larger, lower pitch, psychologically distant, more masculine; Klink, 2000; Maglio, Rabaglia, Feder, Krehm, & Trope, 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 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, Lowrey, Luna, Lerman, & Liu, 2012), product perceptions (Klink, 2000), attitudes (Yorkston & Menon, 2004), recommendations (Guèvremont & Grohmann, 2015), willingness to pay (Maglio et al., 2014), and risk assessment (Botner, Mishra, & Mishra, 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, Peterlin, Pokorn, & Pogacar, 2017; Shrum, Lowrey, Luna, Lerman, & Liu, 2012) and certain sounds are even associated with better brand performance (Pogacar, Plant, Rosulek, & Kouril, 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, & Beyond, Coca-Cola). Alliteration often has positive effects on consumer evaluations. For example, alliterative price promotions were evaluated more favorably than non-alliterative ones (e.g., 3 Theybles \$30 vs. 3 Theybles \$29; Davis, Bagchi, & Block, 2016), even though the non-alliterative promotion was a better deal. Similar effects have been noted for brand names that have repeated sounds across syllables (Argo, Popa, & Smith, 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 non-rhyming aphorisms (“woes unite enemies;” McGlone & Tofighbakhsh, 2000). Subsequent research demonstrated the effect in consumer contexts: Rhyming product slogans were better remembered, liked better, were more persuasive, and were considered more trustworthy compared to similar but non-rhyming slogans (Filkukova & 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, Koval, & Alter, 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, Welkowitz, Goldschmidt, & Wattenberg, 1987), and in particular find the former to be more calm, potent, truthful, and emphatic than the latter (Apple, Streeter, & Krauss, 1979). Similar findings are observed in consumer contexts, with lower voice pitch associated with greater persuasion (Chattopadhyay, Dahl, Ritchie, & Shahin, 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, Maruyama, Beaber, & Valone, 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, Shrum, & Dubitsky, 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, etc.), 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 crossmodal 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, Meier, & Keefer, 2010; Landau, Zhong, & Swanson, 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 non-sweet foods), but only for those who tended to think abstractly (vs. concretely; Yang, Mao, Jia, & Bublitz, 2019). Similarly, priming the conceptual metaphor of fullness reduced perceptions of hunger and decreased portion size choice (Gao, Lowrey, & Shrum, 2020). In another study, Cian, Krishna, and Schwarz (2015) used conceptual metaphor theory to test the proposition that people tend to associate rationality higher on a vertical dimension compared to emotion, and this metaphoric association influences judgments about placement on web pages. In one experiment, participants were given a blank web page 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 web page higher on the web page 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, Sheldon, Ames, & Young, 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: interpersonal effects, conversational effects, and contagion effects. We also discuss figurative and complex language and the influence of message generation on communicators. Table 2 provides a summary of the findings.

Interpersonal Effects

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 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, Pennebaker, Davis, Jeon, & Graesser, 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” (Fitzsimons & Kay, 2004; Simmons, Gordon, & Chambless, 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, Wheeler, and Sarial-Abi (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 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, Moore, and McFerran (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 to 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, Peck, & Barger 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, Chan, & Kim, 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).

Conversational Effects

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 (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 use of certain types of language in marketing communications, with an emphasis on how alignment with expectations has facilitating and positive effects on marketing outcomes.

Assertive language. Assertive language refers to language that is direct, commanding, and forceful. 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; 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, Grinstein, & Walthieu, 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 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, Grinstein, & Walthieu, 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, Moore, & Fitzsimons, 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 to 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 non-asynchronous 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) demonstrated 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 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 in interpersonal, conversational, and word-of-mouth contexts. 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, Pak, & Hanley, 2008), time perception (Casasanto & Boroditsky, 2008), emotions (Gendron, Lindquist, Barsalou, & Barrett, 2012), and motion (Meteyard, Bahrami, & Vigliocco, 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 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 of mixing languages within a communication, often referred to as *code-switching* (Luna & Peracchio, 2005; for a review, see Carroll, Luna, & Peracchio, 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, Shamdasani, & Touchstone, 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 multi-national (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 (En mi *kitchen* nunca haría café con ninguna otra cafetería) 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, De Langhe, & Van Osselaer, 2009), and judgments (Karatas, 2019). 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 not only affects 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 favour 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 to 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 to messages in a second language, because people are more familiar with the words in their native language than 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 judgements in their second language in effect attenuates the endowment effect (Karatas, 2019).

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 to 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 to scales in one's native language (De Langhe, Puntoni, Fernandes & Van Osselaer, 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 accompanies a noun and "classifies" 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 non-existent. 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 (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 to 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 non-human entities. Some languages, such as English, distinguish between humans (he, she) and non-humans (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 non-humans. The presence (vs. absence) of a specific pronoun for non-human entities has interesting effects. For example, speakers of languages (French, Turkish) that do not distinguish between humans and non-humans (“it-less” languages) anthropomorphize more than do speakers of languages that do distinguish between humans and non-humans, such as English (Mecit, Lowrey, & Shrum, 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 and Russian), languages using syllabaries (e.g., Japanese and Cherokee), and languages using logographic characters (e.g., Chinese). In languages using alphabetic characters, every grapheme (letter) represents a sub-syllabic 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 (such as a tie) or feminine (such as 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, Louie, & Curren, 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, Pan, & Tavassoli, 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 to the 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, 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, etc.). In other cases, even when the processes are more controlled, 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 represent 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, Carpenter, & Kellaris, 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 to 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, etc.), 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), 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.

References

- Ahn, J., & Ferle, C. (2008). Enhancing recall and recognition for brand names and body copy: A mixed-language approach. *Journal of Advertising, 37*(3), 107-117.
- Alter, A. L., & Oppenheimer, D. M. (2006). Predicting short-term stock fluctuations by using processing fluency. *Proceedings of the National Academy of Sciences, 103*, 9369-9372.
- Ang, S. H., & Lim, E. A. C. (2006). The influence of metaphors and product type on brand personality perceptions and attitudes. *Journal of Advertising, 35*, 39-53.
- Apple, W., Streeter, L. A., & Krauss, R. M. (1979). Effects of pitch and speech rate on personal attributions. *Journal of Personality and Social Psychology, 37*, 715-727.
- Aral, S., & Walker, D. (2014). Tie strength, embeddedness, and social influence: A large-scale networked experiment. *Management Science, 60*, 1352-1370.
- Argo, J. J., Popa, M., & Smith, M. C. (2010). The sound of brands. *Journal of Marketing, 74*, 97-109.
- Baxter, S., & Lowrey, T. M. (2014). Examining children's preference for phonetically manipulated brand names across two English accent groups. *International Journal of Research in Marketing, 31*, 122-124.
- Berger, J. (2014). Word of mouth and interpersonal communication. A review and directions for future research. *Journal of Consumer Psychology, 24*, 586-607.
- Berger, J., & Iyengar, R. (2013). Communication channels and word of mouth: How the medium shapes the message. *Journal of Consumer Research, 40*, 567-579.
- Bond, R. N., Welkowitz, J., Goldschmidt, H., & Wattenberg, S. (1987). Vocal frequency and person perception: Effects of perceptual salience and nonverbal sensitivity. *Journal of Psycholinguistic Research, 16*, 335-350.
- Botner, K. A., Mishra, A., & Mishra, H. (2020). The influence of the phonetic elements of a name on risk assessment. *Journal of Consumer Research, 47*, 128-145.
- Brehm, J. W. (1966). *A theory of psychological reactance*. New York: Academic Press.
- Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language usage* (Vol. 4). Cambridge University Press.
- Brown, R. W., & Lenneberg, E. H. (1954). A study in language and cognition. *The Journal of Abnormal and Social Psychology, 49*, 454-462.
- Carr, D., & Miles, C. (1997). Rhyme attenuates the auditory suffix effect: Alliteration does not. *The Quarterly Journal of Experimental Psychology: Section A, 50*, 518-527.
- Carroll, R., Luna, D., & Peracchio, L. A. (2007). Dual language processing of marketing communications. In T. M. Lowrey (Ed.), *Psycholinguistic phenomena in marketing communications* (pp. 221-246). Mahwah, NJ: Lawrence Erlbaum.
- Casasanto, D., & Boroditsky, L. (2008). Time in the mind: Using space to think about time. *Cognition, 106*(2), 579-593.
- Chattopadhyay, A., Dahl, D. W., Ritchie, R. J., & Shahin, K. N. (2003). Hearing voices: The impact of announcer speech characteristics on consumer response to broadcast advertising. *Journal of Consumer Psychology, 13*, 198-204.
- Chen, M. (2013). The effect of language on economic behavior: Evidence from savings rates, health behaviors, and retirement assets. *The American Economic Review, 103*(2), 690-731.
- Cian, L., Krishna, A., & Schwarz, N. (2015). Positioning rationality and emotion: Rationality is up and emotion is down. *Journal of Consumer Research, 42*, 632-651.
- Dahl, D. W. (2010). Understanding the role of spokesperson voice in broadcast advertising. In A.

- Krishna (Ed.), *Sensor marketing: Research on the sensuality of products* (pp. 169–182). New York: Taylor & Francis.
- Davis, D. F., Bagchi, R., & Block, L. G. (2016). Alliteration alters: Phonetic overlap in promotional messages influences evaluations and choice. *Journal of Retailing*, *92*, 1–12.
- De Langhe, B., Puntoni, S., Fernandes, D., & Van Osselaer, S. M. (2011). The anchor contraction effect in international marketing research. *Journal of Marketing Research*, *48*, 366–380.
- Dillard, James P., Shen, L. (2005). On the nature of reactance and its role in persuasive health communication. *Communication Monographs*, *72*(June), 144–168.
- Dufour, R., & Kroll, J. (1995). Matching words to concepts in two languages: A test of the concept mediation model of bilingual representation. *Memory & Cognition*, *23*(2), 166–180.
- Filkukova, P., & Klempe, S. H. (2013). Rhyme as reason in commercial and social advertising. *Scandinavian Journal of Psychology*, *54*, 423–431.
- Fitzsimons, G. M., & Kay, A. C. (2004). Language and interpersonal cognition: Causal effects of variations in pronoun usage on perceptions of closeness. *Personality and Social Psychology Bulletin*, *30*(5), 547–557.
- Fitzsimons, G. J., & Lehmann, D. R. (2004). Reactance to recommendations: When unsolicited advice yields contrary responses. *Marketing Science*, *23* (Winter), 82–95.
- Forgas, J. P. (1998). Asking nicely? The effects of mood on responding to more or less polite requests. *Personality and Social Psychology Bulletin*, *24*(2), 173–185.
- French, P. L. (1977). Toward an explanation of phonetic symbolism. *Word*, *28*, 305–322.
- Gao, F., Lowrey, T. M., & Shrum, L. J. (2020). *Metaphoric transfer effect of “fullness” reduces hunger perceptions and portion size choice*. Manuscript under review.
- Gelinas-Chebat, C., & Chebat, J. C. (1992). Effects of two voice characteristics on the attitudes toward advertising messages. *The Journal of Social Psychology*, *132*, 447–459.
- Gendron, M., Lindquist, K., Barsalou, L., & Barrett, L. (2012). Emotion Words Shape Emotion Percepts. *Emotion*, *12*(2), 314–325.
- Grice, P. H. (1975). Logic and conversation. In P. Cole & J. L. Morgan (Eds.), *Syntax and semantics, Vol. 3, Speech acts* (pp. 41–58). New York: Academic Press.
- Grinstein, A., & Kronrod, A. (2016). Does sparing the rod spoil the child? How praising, scolding, and an assertive tone can encourage desired behaviors. *Journal of Marketing Research*, *53*, 433–441.
- Guèvremont, A., & Grohmann, B. (2015). Consonants in brand names influence brand gender perceptions. *European Journal of Marketing*, *49*, 101–122.
- Humboldt, W. von (1836). *On language: The diversity of human language structure and its influence on the mental development of mankind* (P. Heath, Trans.). Cambridge: Cambridge University Press (1988).
- Hung, D. L., & Tzeng, O. J. L. (1981). Orthographic variations and visual information processing. *Psychological Bulletin*, *90*(3), 377–414.
- Kacewicz, E., Pennebaker, J. W., Davis, M., Jeon, M., & Graesser, A. C. (2014). Pronoun use reflects standings in social hierarchies. *Journal of Language and Social Psychology*, *33*(2), 125–143.
- Karatas, M. (2019). Making decisions in foreign languages: Weaker senses of ownership attenuate the endowment effect. *Journal of Consumer Psychology*. doi.org/10.1002/jcpy.1138
- Klink, R. R. (2000). Creating brand names with meaning: The use of sound symbolism. *Marketing Letters*, *11*, 5–20.

- Koslow, S., Shamdasani, P., & Touchstone, E. (1994). Exploring Language Effects in Ethnic Advertising: A Sociolinguistic Perspective. *Journal of Consumer Research*, 20(4), 575-585.
- Krishna, A., & Ahluwalia, R. (2008). Language choice in advertising to bilinguals: Asymmetric effects for multinationals versus local firms. *Journal of Consumer Research*, 35(4), 692-705.
- Kronrod, A., & Danziger, S. (2013). "Wii will rock you!" "The use and effect of figurative language in consumer reviews of hedonic and utilitarian consumption. *Journal of Consumer Research*, 40, 726-739.
- Kronrod, A., Grinstein, A., & Wathieu, L. (2012a). Enjoy! Hedonic consumption and compliance with assertive messages. *Journal of Consumer Research*, 39, 51-61.
- Kronrod, A., Grinstein, A., & Wathieu, L. (2012b). Go green! Should environmental messages be so assertive? *Journal of Marketing*, 76, 95-102.
- Laham, S. M., Koval, P., & Alter, A. L. (2012). The name pronunciation effect: Why people like Mr. Smith more than Mr. Colquhoun. *Journal of Experimental Social Psychology*, 48, 752-756.
- Landau, M. J., Meier, B. P., & Keefer, L. A. (2010). A metaphor-enriched social cognition. *Psychological Bulletin*, 136, 1045-1067.
- Landau, M. J., Zhong, C. B., & Swanson, T. J. (2018). Conceptual metaphors shape consumer psychology. *Consumer Psychology Review*, 1, 54-71.
- Lee, J. K., & Kronrod, A. (2020). The strength of weak-tie consensus language. *Journal of Marketing Research*, 57, 353-374.
- Li, X., Chan, K. W., & Kim, S. (2019). Service with emoticons: How customers interpret employee use of emoticons in online service encounters. *Journal of Consumer Research*, 45 (5), 973-987.
- Logan, R. (1986). *The alphabet effect*. New York: Morrow.
- Lowe, M. L., & Haws, K. L. (2017). Sounds big: The effects of acoustic pitch on product perceptions. *Journal of Marketing Research*, 54, 331-346.
- Lowrey, T. M. (1998). The effects of syntactic complexity on advertising persuasiveness. *Journal of Consumer Psychology*, 7(2), 187-206.
- Lowrey, T. M. (2006). The relation between script complexity and commercial memorability. *Journal of Advertising*, 35(3), 7-15.
- Lowrey, T. M., & Shrum, L. J. (2007). Phonetic symbolism and brand name preference. *Journal of Consumer Research*, 34, 406-414.
- Lowrey, T. M., Shrum, L. J., & Dubitsky, T. M. (2003). The relation between brand-name linguistic characteristics and brand-name memory. *Journal of Advertising*, 32, 7-17.
- Luangrath, A. W., Peck, J., & Barger, V. A. (2017). Textual paralanguage and its implications for marketing communications. *Journal of Consumer Psychology*, 27, 98-107.
- Luna, D., & Peracchio, L. A. (2001). Moderators of language effects in advertising to bilinguals: A psycholinguistic approach. *Journal of Consumer Research*, 28(2), 284-295.
- Luna, D., & Peracchio, L. (2002). "Where there is a will...": Motivation as a moderator of language processing by bilingual consumers. *Psychology & Marketing*, 19(7-8), 573-593.
- Luna, D., & Peracchio, L. (2005). Advertising to bilingual consumers: The impact of code-switching on persuasion. *Journal of Consumer Research*, 31(4), 760-765.
- Maglio, S. J., Rabaglia, C. D., Feder, M. A., Krehm, M., & Trope, Y. (2014). Vowel sounds in words affect mental construal and shift preferences for targets. *Journal of Experimental Psychology: General*, 143, 1082-1096.
- McGlone, M. S., & Tofiqbakhsh, J. (2000). Birds of a feather flock conjointly (?): Rhyme as

- reason in aphorisms. *Psychological Science*, *11*, 424–428.
- McNeel, A. E. (2017). *A whole new world? How unusual brand name spelling negatively affects sensory perceptions of new products through cognitive and affective processing*. Unpublished doctoral dissertation, City University of New York, New York.
- McQuarrie, E. F., & Mick, D. G. (1999). Visual rhetoric in advertising: Text-interpretive, experimental, and reader response analyses. *Journal of Consumer Research*, *26*, 37–54.
- Mecit, N. A., Lowrey, T. M., & Shrum, L. J. (2018). Linguistic antecedents of anthropomorphism. In A. Gershoff, R. Kozinets, & T. White (Eds.), *NA – Advances in consumer research* (Vol. 46; pp. 698-699). Duluth, MN: Association for Consumer Research.
- Meteyard, L., Bahrami, B., & Vigliocco, G. (2007). Motion detection and motion verbs language affects low-level visual perception. *Psychological Science*, *18*(11), 1007-1013.
- Meyers-Levy, J., Louie, T. A., & Curren, M. T. (1994). How does the congruity of brand names affect evaluations of brand name extensions? *Journal of Applied Psychology*, *79*(1), 46-53.
- Miller, N., Maruyama, G., Beaber, R. J., & Valone, K. (1976). Speed of speech and persuasion. *Journal of Personality and Social Psychology*, *34*, 615–624.
- Moore, S. G. (2012). Some things are better left unsaid: How word of mouth influences the storyteller. *Journal of Consumer Research*, *38*(6), 1140-1154.
- Moore, S. G. (2015). Attitude predictability and helpfulness in online reviews: The role of explained actions and reactions. *Journal of Consumer Research* *42*, 30-44.
- Moore, S. G., & Lafreniere, K. C. (2020). How online word-of-mouth impacts receivers. *Consumer Psychology Review*, *3*, 34-59.
- Morris, M. W., Sheldon, O. J., Ames, D. R., & Young, M. J. (2007). Metaphors and the market: Consequences and preconditions of agent and object metaphors in stock market commentary. *Organizational Behavior and Human Decision Processes*, *102*, 174–192.
- Packard, G., Moore, S. G., & McFerran, B. (2018). (I'm) happy to help (you): The impact of personal pronoun use in customer–firm interactions. *Journal of Marketing Research*, *55*(4), 541-555.
- Pan, Y., & Schmitt, B. (1996). Language and brand attitudes: Impact of script and sound matching in Chinese and English. *Journal of Consumer Psychology*, *5*(3), 263-277.
- Pogacar, R., Kouril, M., Carpenter, T. P., & Kellaris, J. J. (2018). Implicit and explicit preferences for brand name sounds. *Marketing Letters*, *29*(2), 241-259.
- Pogacar, R., Lowrey, T. M., & Shrum, L. J. (2018). The influence of marketing language on consumer perceptions and choice. In M. R. Solomon & T. M. Lowrey (Eds.), *The Routledge companion to consumer behavior* (pp. 263-275). New York: Routledge.
- Pogacar, R., Peterlin, A. P., Pokorn, N. K., & Pogačar, T. (2017). Sound symbolism in translation: A case study of character names in Charles Dickens's *Oliver Twist*. *Translation and Interpreting Studies. The Journal of the American Translation and Interpreting Studies Association*, *12*(1), 137-161.
- Pogacar, R., Plant, E., Rosulek, L. F., & Kouril, M. (2015). Sounds good: Phonetic sound patterns in top brand names. *Marketing Letters*, *26*(4), 549-563.
- Pogacar, R., Shrum, L. J., & Lowrey, T. M. (2018). The effects of linguistic devices on consumer information processing and persuasion: A language complexity × processing mode framework. *Journal of Consumer Psychology*, *28*(4), 689-711.
- Puntoni, S., De Langhe, B., & Van Osselaer, S. (2009). Bilingualism and the emotional intensity of advertising language. *Journal of Consumer Research*, *35*(6), 1012-1025.
- Quick, B. L., & Considine, J. R. (2008). Examining the use of forceful language when designing

- exercise persuasive messages for adults: A test of conceptualizing reactance arousal as a two-step process. *Health Communication*, 23 (September), 483–491.
- Roberson, D., Pak, H., & Hanley, J. (2008). Categorical perception of colour in the left and right visual field is verbally mediated: Evidence from Korean. *Cognition*, 107(2), 752-762.
- Schmitt, B., Pan, Y., & Tavassoli, N. (1994). Language and consumer memory: The impact of linguistic differences between Chinese and English. *Journal of Consumer Research*, 21(3), 419-431.
- Schmitt, B., & Zhang, S. (1998). Language structure and categorization: A study of classifiers in consumer cognition, judgment, and choice. *Journal of Consumer Research*, 25(2), 108-122.
- Schwarz, N. (2004). Metacognitive experiences in consumer judgment and decision making. *Journal of Consumer Psychology*, 14, 332–348.
- Sela, A., Wheeler, S. C., & Sarial-Abi, G. (2012). We are not the same as you and I: Causal effects of minor language variations on consumers' attitudes toward brands. *Journal of Consumer Research*, 39(3), 644-661.
- Sharf, D. J., & Lehman, M. E. (1984). Relationship between the speech characteristics and effectiveness of telephone interviewers. *Journal of Phonetics*, 12, 219–228.
- Shrum, L. J., & Lowrey, T. M. (2007). Sounds convey meaning: The implications of phonetic symbolism for brand name construction. In T. M. Lowrey (Ed.), *Psycholinguistic phenomena in marketing communications* (pp. 39–58). Mahwah, NJ: Erlbaum.
- Shrum, L. J., Lowrey, T. M., Luna, D., Lerman, D. B., & Liu, M. (2012). Sound symbolism effects across languages: Implications for global brand names. *International Journal of Research in Marketing*, 29(3), 275-279.
- Sidhu, D. M., & Pexman, P. M. (2018). Five mechanisms of sound symbolic association. *Psychonomic Bulletin & Review*, 25(5), 1619-1643.
- Simmons, R. A., Gordon, P. C., & Chambless, D. L. (2005). Pronouns in marital interaction: What do “you” and “I” say about marital health?. *Psychological Science*, 16(12), 932–936.
- Song, H., & Schwarz, N. (2009). If it’s difficult to pronounce, it must be risky: Fluency, familiarity, and risk perception. *Psychological Science*, 20, 135–138.
- Spence, C. (2012). Managing sensory expectations concerning products and brands: Capitalizing on the potential of sound and shape symbolism. *Journal of Consumer Psychology*, 22, 37–54.
- Tavassoli, N. (2001). Color memory and evaluations for alphabetical and logographic brand names. *Journal of Experimental Psychology: Applied*, 7(2), 104-111.
- Tavassoli, N., & Han, J. (2001). Scripted thought: processing Korean Hancha and Hangul in a multimedia context. *Journal of Consumer Research*, 28(3), 482-493.
- Whorf, B. L. (1952). Language, mind, and reality. *A review of general semantics*, 9(3), 167-188.
- Wong, A. D. (2013). Brand names and unconventional spelling: A two-pronged analysis of the orthographic construction of brand identity. *Written Language & Literacy*, 16, 115–145.
- Yang, X., Mao, H., Jia, L., & Bublitz, M. G. (2019). A sweet romance: Divergent effects of romantic stimuli on the consumption of sweets. *Journal of Consumer Research*, 45, 1213-1229.
- Yorkston, E., & De Mello, G. (2005). Linguistic gender marking and categorization. *Journal of Consumer Research*, 32(2), 224-234.
- Yorkston, E., & Menon, G. (2004). A sound idea: Phonetic effects of brand names on consumer judgments. *Journal of Consumer Research*, 31, 43–51.
- Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology: Monograph Supplement*, 9, 1–27.

Zemack-Rugar, Y., Moore, S. G., & Fitzsimons, G. J. (2017). Just do it! Why committed consumers react negatively to assertive ads. *Journal of Consumer Psychology, 27*(3), 287-301.

Zhang, S., & Schmitt, B. (2004). Activating sound and meaning: The role of language proficiency in bilingual consumer environments. *Journal of Consumer Research, 31*(1), 220-228.

Zhang, S., & Schmitt, B. (2007). Phonology and semantics in international marketing: What brand name translations tell us about consumer cognition. In T. M. Lowrey (Ed.), *Psycholinguistic phenomena in marketing communications* (pp. 58-78). Mahwah, NJ: Lawrence Erlbaum.