The Emergence and Evolution of Consumer Language Research

GRANT PACKARD (D)
JONAH BERGER

Over the last 50+ years, there has been a huge rise in interest in consumer language research. This article spotlights the emergence and evolution of this area, identifying key themes and trends and highlighting topics for future research. Work has evolved from exploration of broad language concepts (e.g., rhetorics) to specific linguistic features (e.g., phonemes) and from monologues (e.g., advertiser to consumer) to two-way dialogues (e.g., consumer to service representative and back). We discuss future opportunities that arise from past trends and suggest two important shifts that prompt questions for future research: the new shift toward using voice (vs. hands) when interacting with objects and the ongoing shift toward using hands (vs. voices) to communicate with people. By synthesizing the past, and delineating a research agenda for the future, we hope to encourage more researchers to begin to explore this burgeoning area.

Keywords: language, linguistics, communication, speaking, writing, automated text analysis

Language is a fundamental part of being human. We use words to talk to ourselves, to others, and even to things—whether they talk back or not. Consumers share word of mouth, complaints, and status updates. Companies write ads, press releases, and website copy. And consumer researchers transmit ideas by putting words to pages like this one.

Verbal communication is central to consumption, and the last 50 years have seen a remarkable rise in consumer language research. By consumer language research, we mean research conceptually or substantively concerned

Grant Packard (gpackard@schulich.yorku.ca) is an associate professor of marketing at the Schulich School of Business, York University, Toronto, ON, Canada. Jonah Berger (jberger@wharton.upenn.edu) is an associate professor of marketing at The Wharton School, University of Pennsylvania, Philadelphia, PA, USA. Please address correspondence to Grant Packard. Supplementary materials are included in the web appendix accompanying the online version of this article.

Editor: Stacy Wood

Associate Editor: Sarah G. Moore

with the language used and consumed by marketplace participants (e.g., consumers, marketers, and salespeople) in relation to consumer-relevant outcomes (Kronrod 2022; Pogacar et al. 2022). This work has investigated a range of topics, from advertising and persuasion to how language reflects thought and predicts attitudes.

A lot has also changed in the world when it comes to consumer language. *JCR*'s founding 50 years ago coincided with the widespread adoption of the electric type-writer, one step of the ongoing transition in human language production from voice to text. Conversely, rather than using their hands to produce text, consumers are starting to engage with objects using their voice, talking to "smart" devices and related artifical intelligence (AI) technologies to achieve consumption goals (Novak and Hoffman 2023). These technologies also increasingly talk back and analyze consumers' own words. For marketers, this has been called a golden age for language (Xu 2021), but efforts to understand language's impact on consumers and firms have much room to grow.

Given all this, it is vital to understand where consumer language research has been and where it is going. This article answers that call, considering the past and future of this burgeoning research area. First, we look back, identifying important themes and trends that gave rise to this

emerging sub-field. Second, we look forward, highlighting key ways that the language of consumers (and others) may evolve and shift. Along the way, we outline opportunities for future research to shed new light on language for consumers, managers, and other stakeholders.

QUANTIFYING AND CHRONICLING CONSUMER LANGUAGE RESEARCH

Words are the primary way people process, communicate, and even manipulate meaning. Consequently, one could argue that all research is language research in one way or another. But just because research uses different words across experimental conditions does not make it language research. Instead, consumer language research can be described as work concerned with how, when, and why linguistic phenomena (e.g., rhetoric, grammar/syntax, phonetics, or semantics) reflect consumer states and traits, predict future actions, or shape consumer attitudes and behaviors.

To help synthesize this sub-field's past, and consider its future, we performed a bibliometric analysis, identifying all consumer language research articles in the top five marketing journals over more than 50 years (from 1965 to 2022; N=172). We then coded various attributes (e.g., year, journal, linguistic feature(s) of interest, method, and outcomes examined; see web appendix for methodological details) for each article. This allows us to quantify the growth of this sub-field, and chronicle key themes and historical trends.

Growth

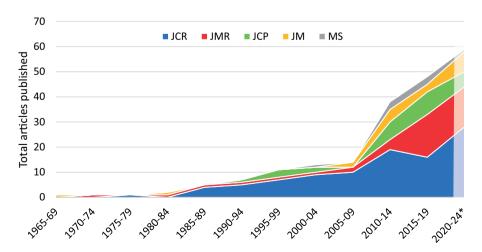
Consumer language research has seen intense growth (figure 1). While there were only five articles in the first two decades (1965–1984), the next 20 years (1985–2004) saw an over 700% increase. But that was just the beginning. As advances in digital technologies provided opportunities to study consumer-generated text, things took off even further. The last decade (2010-2019) has seen an over 300% increase versus the prior one and the growth seems likely to continue. In the last 2.5 years alone (January 2020–June 2022), there have already been 31 consumer language research articles, putting the field on track for 60 or more articles from 2020 to 2024. JCR is the leader in this area, representing nearly half (49%) of consumer language research articles published over these five plus decades. Indeed, JCR published a consumer language research article slightly more than once (1.2 times) per every two issues, on average, in the most recent decade (2010-2019).

Key Topics and Themes

Deeper analysis highlights some key insights. First, while many articles study how language (or paralanguage) persuades (58%), the remainder explore a rich diversity of conceptual and substantive questions. This includes topics like how devices shape language production (Melumad, Inman, and Pham 2019), the words consumers use to coproduce products (Novak and Hoffman 2023), and how

FIGURE 1

PREVALENCE OF CONSUMER LANGUAGE RESEARCH ARTICLES



Note: *The second half of the 5-year period of 2020–2024 is a projection (faded color chart area at far right) assuming a continuation of the first 2.5 years of articles observed in that 5-year period. JCR = Journal of Consumer Research, JMR = Journal of Marketing Research, JCP = Journal of Consumer Psychology, JM = Journal of Marketing, MS = Marketing Science.

44 50 YEARS OF *JCR*

language is linked to identity (Luna, Ringberg, and Peracchio 2008).

Second, only a small portion of consumer language research (10%) focuses on spoken language, and attention to spoken language has not increased (figure 2A). This may partially be due to scholars searching for insight where it is easy to look. The fact that written language is easier to collect (i.e., experimentally or online) may be skewing perceptions of how language works. Given the increasing use of voice to interact with smart objects, and the use of spoken language in multi-modal contexts (e.g., voiceovers in TV ads), this area seems ripe for further work.

Third, some language features and outcomes have received considerably more attention than others. Regarding language features, for example, more than twice as many articles focus on the meaning of individual words (i.e., semantics; 39% of articles) than on how words construct meaning together due to *where* they appear in clauses or sentences (i.e., grammar/syntax; 17%). Examining complex multi-word constructions is

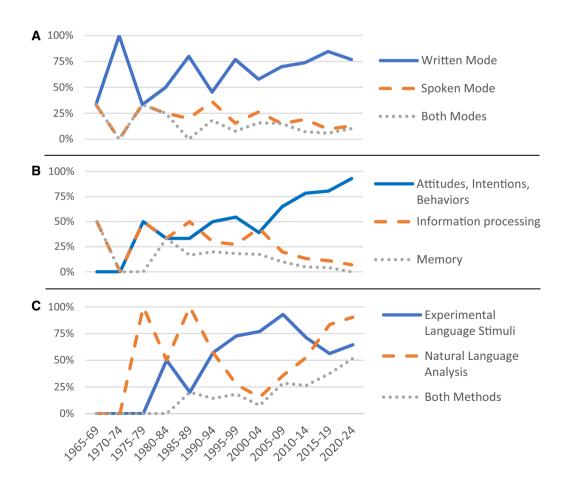
challenging, which may help explain why it has received less attention. Regarding outcomes, research has been more concerned with how language shapes attitudes, intentions, or behaviors (87% of articles) than its role in or impact on information processing (28%) or memory (12%), especially in recent years (figure 2B).

Trends over Time

The nature of attention has also shifted over time. As noted, more than half of consumer language research has focused on how it persuades, or impacts the audience that consumes it. Research in this area has evolved across five main themes over the last 50+ years.

Language in Consumer Culture (1980s). The first boom in language research began in the mid-1980s and was mostly qualitative. It considered things like how brands shape the language of consumer society (Friedman 1985) and the "loaning" of consumption-related words across languages (Sherry and Camargo 1987). Stern (1989)

FIGURE 2
TIME TRENDS IN CONSUMER LANGUAGE RESEARCH BY (A) MODE, (B) OUTCOME, AND (C) METHOD



introduced the critical literary analysis of marketing language as a contributor to culture.

Advertising Rhetoric (1990s). A second theme emerged in the 1990s, leveraging the centuries-old notion of rhetoric (i.e., the art of writing or speaking persuasively). McQuarrie and Mick's (1996) framework invited scholars to consider rhetorical techniques such as rhyme and puns. Interpretations of ads and experiments explored how word play helps ads resonate (McQuarrie and Mick 1992) and how verbal tropes anchor visual meanings (Phillips 2000).

Language Research's Experimental Boom (Late 1990s to Early 2010s). A third theme arose in the late 1990s and early 2000s, involving greater diversity and volume of consumer language research. This period saw experimental examinations of a rich variety of "micro" linguistic features such as assertive words, phonemes, and syntax, within and across languages. Research considered whether syntactic complexity shapes persuasion (Lowrey 1998), for example, assertive words' role in ads (Kronrod, Grinstein, and Wathieu 2012a, 2012b) and the benefit of attribute-consistent sounds (e.g., "sharp" sounds for a knife; Lowrey and Shrum 2007). Cross-cultural research considered how the presence of gender marking nouns (Yorkston and de Mello 2005) or specific parts of speech (Schmitt and Zhang 1998) shape consumer inferences.

Other work during this period built on Landau, Meier, and Keefer's (2010) notion of conceptual metaphors. While prior research theorized that metaphor makes abstract ideas come to life by connecting them to physical experience, consumer research supported the notion that metaphor has a more linguistic than embodied basis (Zhang and Li 2012). The feeling that a problem carries a psychological load was activated more when consumers were confronted with words like "heavy," for example, than by actually carrying a physical load.

Consumer Language Online (2010s). While the first three themes focused on marketer language, a fourth theme shifted attention to consumers. This work exploded in the early 2010s with the boom in digital consumer text. Research in this area explored how language features like abstract verbs (Schellekens, Verlegh, and Smidts 2010), or verbs denoting explicit versus implicit product support (Packard and Berger 2017), shape word of mouth's impact. Related research revealed that congruency between a reviewer and reader's linguistic style increases the reader's likelihood of writing a review (Moore and McFerran 2017) and purchasing the reviewed product (Ludwig et al. 2013). By the 5-year period beginning in 2015, the proportion of articles examining consumer language (47%) exceeded those concerned with advertising and brand language [39%; the remainder examined mixed speakers (12%) or AI language (2%)].

Consumer Conversation (Late 2010s and 2020s). A fifth theme examining marketplace conversations has just started to gain traction. Service employees who use more concrete language, for example, boost subsequent customer purchases (Packard and Berger 2021), and competent (rather than warm) frontline employee language improves satisfaction (Marinova, Singh, and Singh 2018). There is also attention to social media conversations, where features such as the syntactic complexity of a post shape the likelihood of a reply (Pancer et al. 2019).

Two Key Shifts. Taken together, these five themes suggest that persuasion-centric language research has evolved across two dimensions: from broader language concepts (i.e., rhetorics and literary critique) to narrower linguistic features (i.e., words and phonemes) and from one-way monologues (e.g., ads or online reviews) to back and forth dialogues (i.e., service interactions and social media conversations). These trends seem likely to continue as marketplace text grows, tools to examine linguistic features become more accessible (Berger et al. 2020, 2022a), and consumers increasingly talk with smart objects and AI technologies to achieve their goals.

Consumer Attitudes and Preferences (Early 2020s). Beyond how language persuades, a sixth theme of consumer language research has explored how language sheds light on the consumers and cultures that produce it.

Language is a window into thought: what consumers say or write reflects what they were thinking about or attending to. Compared to someone who writes with less emotional language, for example, someone who uses more affective language is more likely to be feeling or thinking about things related to emotions (Rocklage, Rucker, and Nordgren 2018). The same holds for attitudes, needs, and motives (Boyd and Schwartz 2021).

Consequently, rather than using survey measures to collect attitudes and preferences, the natural language consumers leave behind can provide valuable insight. Indeed, starting in the 2015–2019 period, more articles included quantitative or qualitative analysis of natural consumer language (83%) than experimental presentation of language stimuli and survey measures (56%; figure 2C), a trend that continued in the first half of 2020–2024 (94% vs. 68%).

Early work on sentiment analysis revealed that how people feel about something could be measured by the language they produce (Gottschalk and Gleser 1969). More recent work has examined how language can reveal consumer needs and attitudes (Timoshenko and Hauser 2019; Wang et al. 2021a) or motivations (e.g., for hosting on AirBnB, Chung et al. 2022). These approaches have obvious implications for understanding and influencing consumer behavior. Language can be mined for insight into traits, attitudes, needs, and motives, and as a result,

46 50 YEARS OF *JCR*

companies and scholars can use language to answer a variety of important questions.

Indeed, emerging work is starting to use language to understand people and predict behavior. At the individual level, for example, the words people use in loan applications can help understand who will default (Netzer, Lemaire, and Herzenstein 2019) and the words used on Facebook can identify health issues like depression (Eichstaedt et al. 2018). At the collective or cultural level, consumer language can help understand things like market structure and consideration sets (Netzer et al. 2012) or stock prices (Tirunillai and Tellis 2012).

LOOKING TOWARD THE FUTURE

While consumer language research has exploded as of late, what topics will deserve attention going forward? While our historical discussion suggests many gaps and opportunities, we discuss a few we believe are particularly interesting both conceptually and substantively.¹

We start by suggesting two shifts in language-centered practices that seem substantively central to the future of consumer behavior: first, the nascent shift toward controlling consumption objects using voices (rather than hands), and second, the still under-researched shift toward using hands (rather than voices) to communicate with people. Third, we suggest that future research should consider the words used by marketers and consumers in terms of their co-occurrence alongside other information modalities (e.g., sounds and images) as well as other words, so we discuss where words appear in both a macro (e.g., a particular multi-modal information context) and micro sense (e.g., a particular sentence). Our bibliometric analysis identified conceptual gaps in the field that helped inform and motivate these three topics.

Shift from Physical to Spoken Interactions with Objects

While the bibliometric analysis shows that relatively little work has explored spoken communication, this is at odds with an emerging consumer phenomenon: speaking to objects. Consumer interactions with objects used to be mostly physical (i.e., flipping on the light switch), but many such interactions can now be controlled by voice. Rather than dialing a phone number, for example, consumers ask Siri to dial, and rather than turning up the radio by hand, consumers can ask their car to do it. How might the shift from hands to voice impact consumer behavior?

Talking to Objects. Consumers are more likely to anthropomorphize objects they communicate with, and see them as entities, potentially with minds of their own (Crolic et al. 2022). While this may be beneficial in some situations, it may be detrimental in others. Take outcome attributions. When consumers interact with objects manually, failures are usually the consumer's fault, and they attribute them as such. When one dials the wrong phone number, for example, they usually have no one to blame but themselves. But talking to smart objects may change such attributions. When telling Siri to dial a certain number, for example, if the result is something other than desired, consumers can now blame Siri, suggesting Siri "misunderstood." This may negatively impact attitudes toward smart objects and the brands that offer them (e.g., Apple or Google), even when the communication failures are actually the consumer's fault.

Talking to objects should also lead consumers to produce different types of language. When asking a person for help, for example, consumers might say "Can you point me towards the nearest coffee shop?" or "Do you know if this book got good reviews?" But when asking an object, consumers are more likely to say "Where's the nearest coffee shop?" or "Show me this book's reviews." Such differences are likely partly driven by whether and how consumers ascribe mental states and abilities (i.e., theory of mind) to artificial intelligence (Wang et al. 2021b). Just as adults simplify speech when talking to children, we expect that consumers may infer that AI's and chatbot's abilities to understand are constrained, and thus simplify their language to an extent that may be detrimental to achieving the consumer's complex or idiosyncratic goals.

Objects Talk Back. Work might also explore how these objects verbally respond to consumer language. While communicating with objects may make them seem more like mindful entities, and thus more human, the language these objects or devices use to talk back should also play a role. Most smart objects and AI do not currently use facial expression, body language, vocal cues (e.g., pitch variation), or other forms of non-verbal communication. Consequently, how these objects are perceived depends almost entirely on the language they use. Using longer or more unusual words, or more complex sentences should make smart objects or AI seem smarter and more sophisticated (Wang et al. 2021b), enhancing their appeal. Response speed may also matter. Taking too long to respond should make them seem less competent. Given personal pronouns are the social currency of language (Pennebaker 2013), and are difficult to use correctly, this part of speech may be a particularly important signal of the quality of a smart object's "mind," and thus the degree to which the consumer infers the object's response is diagnostic for the decision at hand.

¹ We hope that scholars also consider a variety of other worthwhile topics that seem under-represented in consumer language research. These include language in information processing, memory, conversation, cross-linguistic effects (Kronrod 2022), and words as a window on consumer psychology at the individual or cultural levels.

Second, language should also impact consumer trust. People tend to assume that AI and chatbots cannot account for situated needs (Longoni, Bonezzi, and Morewedge 2019) or are not trustworthy if subjectivity is involved (Castelo, Bos, and Lehmann 2019), but how they use language should play a role. AI technologies that use more precise quantifiers (e.g., 80.135% vs. 80%), for example, are seen as more trustworthy (Kim, Giroux, and Lee 2021). Similarly, consumer knowledge that an AI's words are constructed in real time (rather than pre-programmed) might increase trust because it suggests that the machine is thinking about and working through the correct answer given the situation. Such an effect might be particularly strong in contexts of objective information sharing, and relative to the alternative of a human firm agent who may possess a persuasion motive that makes them less interested in sharing the truth.

Third, uncertain language also deserves attention. While humans often use language to communicate uncertainty (e.g., "I think"), smart objects stick to the facts (Kim et al. 2021), using more objective sounding, descriptive second person language (e.g., "it is"). While this may be beneficial because it makes them seem precise, it may also make smart objects and machines seem less helpful for subjective needs (e.g., movie reviews), where they may be better off using words that attribute information to human sources (e.g., "Movie critics say..."). New tools such as the Certainty Lexicon (Rocklage et al. 2022) should help scholars investigate certainty signals in AI (and human) language.

Objects Listen and Learn. It is also worth noting that objects are listening and learning. What consumers say feeds into sophisticated models that attempt to predict, respond to, and shape behavior. Marketers already use AI to help decide what products, prices, and messages are "best" for different consumers (Iansiti and Lakhani 2020), but the consumer language-driven predictions of AI mostly remain a "black box" (Holm 2019) capable of manipulation and discrimination (Petropoulos 2022).

Consumer language research is not in the business of developing AI, but it can contribute understanding about the underlying psychology of its predictions. People who default on loans are less likely to use past tense verbs on their loan applications (e.g., Netzer et al. 2019), for example, but why? One possibility might be that consumers who struggle financially are more likely to describe the actual self using past tense (Markus and Nurius 1986), while those motivated to achieve a more aspirational ideal self use verb constructions describing the future. Lab experiments manipulating these constructs and collecting natural language samples might help answer such questions. Asking these kinds of questions could help convert AI's "black box" of language prediction into an information source that helps researchers drive new theory, marketers

develop better offerings, and consumers enhance their decision-making and welfare.

Shift from Spoken to Written Interactions among People

While there is a shift of speaking to non-humans, consumers continue to shift toward using their hands (rather than voice) to communicate with one another (Tocci 2021). That said, only 2% of consumer language research articles have been centrally concerned with comparing linguistic communications in voice versus text (Berger, Rocklage, and Packard 2022b).

This understudied modality shift has several important implications. First, while non-verbals (e.g., intonation, facial expression, and body language) make up most of communication (Burgoon, Guerrero, and Manusov 2011), writing strips them away. Consequently, words and textual paralanguage (Luangrath, Peck, and Barger 2017) that appear in texts, tweets, or online reviews become even more important.

Second, this shift should change *what* people communicate (see Oba and Berger 2023 for a review). Compared to speaking, for example, writing allows for more deliberation, or time to think about and construct what to say. This should reduce linguistic disfluencies (e.g., um or uhh) and repetition (i.e., of words and ideas) and encourage better syntax, structure, and discussion of interesting topics, products, and brands (Berger and Iyengar 2013). All of this should lead to clearer, sharper, and more organized communication and may lead communicators to be seen more positively.

Writing also has less social associations. While speaking commonly involves others (Rubin 1987), consumers often write to themselves (e.g., shopping lists, notes, and diaries). Consequently, while speaking may put communicators in an interactive mindset where they are more aware of, and focused on, an audience (Akinnaso 1982), writers may be more focused on the information to be conveyed (Shen and Sengupta 2018). As a result, the shift from speaking to writing may reduce self-expression, or inclusion of personal experiences or opinions. When talking about a vacation, for example, this could be the difference between talking about the attributes of the resort (e.g., pool) versus talking about how the resort made them feel, which should shape the review's usefulness and impact (Wang et al. 2021a).

Fourth, work might further examine the consequences of the continued shift toward written interpersonal communication. While writing rather than speaking decreases expressed emotionality (Berger et al. 2022b), for example, does it reduce communicators' felt emotion? If so, writing might reduce negative feelings toward a product, making it more likely that consumers will try it again in the future. Similarly, research could consider whether written

48 50 YEARS OF *JCR*

complaint handling suppresses emotional words, leading to a more cognitive, problem-solving focused interaction, or whether there are benefits of encouraging consumers to use emotional words because they vent their frustrations, which helps them dissipate.

Text also often creates a written record, and this increased permanence should make consumers more conscious of what they share. Compared to speaking, for example, writing might lead consumers disclosing health issues to use less first person (i.e., I or my) and more third person (i.e., it or those) to protect the self. This could have consequences for both persuasion and their future health. Because first-person voice suggests personal involvement in (vs. objective detachment from) the experience (Stern 1991), for example, writing may lead both the writer and audience to dissociate and be less likely to take action on the issue.

Where Words Appear

Multi-Modality Contexts. Beyond spoken or written language, it is also important to consider where language appears in the context of other information modalities. As noted in the bibliometic analysis, prior consumer language research has considered written words, spoken words, or more rarely, compared the two. But print ads and social media posts mix language with images, spoken communication and radio ads mix language with music or sound effects, and TV ads and Tik Tok videos often mix words with a variety of other visual and acoustic features.

Surprisingly little is known, however, about how language's processing, and impact, is shaped by information from these other modalities (Holler and Levinson 2019). Do people process language the same way in isolation, for example, as they do in conjunction with music or moving images? The presence of multiple modalities should divide attentional resources, reducing the impact of content from any one mode. Multiple modes may encourage more heuristic processing, which could limit the extent to which language (and other information) is carefully considered by consumers.

Given the relative dearth of attention to information processing in consumer language research (figure 2B), multi-modal settings may offer a rich opportunity for future research. One increasingly ubiquitous multi-modal setting for consumers (e.g., for sales and service; Spadafora 2022) is video conferencing applications like Zoom, where communication can include voice, text, other supporting visuals (e.g., presentation slides), and bodily non-verbals (if one leaves their camera on). These settings can make people unnaturally focused on faces (Fauville et al. 2021) relative even to everyday face-to-face interactions (Bonoma and Felder 1977; Jones and LeBaron 2002). If the focus is on the interaction partner's face, it might lead to greater use of second person "you" pronouns, which

can hurt social perception if it signals blaming (Packard, Moore, and McFerran 2018). More broadly, an unnatural focus on facial expressions may take cognitive resources from producing the best linguistic response, which might make video sales or service less effective for marketers. Experiments could examine how turning on/off particular modalities in this context shapes language processing.

Multi-modality contexts may also help shed light on language and memory, another outcome the bibliometric analysis suggests merits more attention. As discussed, because written communication often leaves a more lasting record, audiences might pay less attention to it because they know they can review it later. This, in turn, may make people less likely to remember what was said in written communication. Shifts within communication modalities may have similar effects. The content of emails is saved, for instance, while Snapchat or Whisper messages disappear soon after they are written. The mere salience of language's impermanence in these contexts may shift beliefs about, or even performance in, remembering what was said.

Sentence Construction. While multi-modal environments offer opportunities to understand how language's effects vary when it appears with other forms of information, questions also remain about more fundamental linguistic aspects of where words appear within clauses and sentences (i.e., grammar).

Verb phrasing, a decision about where to place grammatical objects and subjects in relation to verbs, is one basic language feature that has received little attention. In taglines, for example, a product can be the grammatical subject ("Tide solves your toughest stains") or object of a verb's action ("Solve your toughest stains with Tide"). Treating the product as subject might signal the product's agency in achieving the stated benefit, while product as object may imply a collaborative relationship (Sela, Wheeler, and Sarial-Abi 2012; see also Ostinelli and Luna 2022). As such, verb voice's effect should depend on consumer expectations. While active voice (product as subject) might be more persuasive when consumers expect the product to do the work (e.g., laundry detergent), passive voice (product as object) might work better when consumers want or expect to play a more active role (e.g., picking movies on Netflix).

Grammatical decisions about where adverbs are positioned may also be important. Communicators choose to signal when, how, or where something happens either before or after the thing itself (e.g., nouns and verbs). A speedy auto service brand might claim "Meineke gets you going quickly" or "Meineke quickly gets you going." While work on primacy versus recency effects in message order could suggest that the former (vs. latter) might be more effective in high (vs. low) elaboration settings, past research has only considered a sentence's location in a body of text (Haugtvedt and Wegener 1994). When

TABLE 1

SAMPLE PROPOSITIONS THAT COULD BE TESTED IN FUTURE RESEARCH

Topic Sample research predictions Shift from physical to spoken Speaking to (vs. physically manipulating) objects shift attributions of success or failure to the object. interactions with objects Al that uses pre-programmed (vs. real time) language production will activate persuasion knowledge. Smart objects persuade more if they linguistically assign subjective (objective) knowledge to humans (itself). Shift from spoken to written Writing (vs. speaking) about a product experience reduces felt emotion, encouraging consumers to try again. Written (vs. spoken) reviews encourage attitude consistency, increasing perceived attitude extremity. interactions among people Writing (vs. speaking) about health issues causes the source to dissociate from, and avoid acting on. the issue Where words appear Adding visual information to language divides attentional resources, increasing heuristic processing, Passive (active) voice advertising language will be more effective for actively (passively) consumed goods. Placing a motion-inducing attribute in first (last) adverbial position benefits category leaders (laggards).

considered within a sentence or clause, the effect of where an adverb is positioned should instead depend on whether what is being conveyed (the main verb clause) matters more than where, how, or when (the adverbial). Whether the brand is the category leader or a new entrant may be one key moderator. Putting the category attribute of initiating motion first might benefit a category leader ("Meineke gets you going quickly") due to their schema position as a category exemplar (Snyder 1992), while putting the adverbial in the initial position may help differentiate a new entrant ("Jane's Auto Shop quickly gets you going").

Of course, these aspects of *where* language appears could also be examined as moderators of research about the different shifts in language modalities discussed earlier. Table 1 spotlights some of the many opportunities for future consumer language research discussed here.

CONCLUSION

Consumer language research has seen tremendous growth. This article captures the emergence and evolution of this work, identifying key themes and topics that merit further attention. The area has evolved from exploring broad language concepts (e.g., rhetorics) to specific linguistic features (e.g., phonemes), for example, and from monologues (e.g., advertiser to consumer) to two-way dialogues (e.g., consumer to service representative).

Furthermore, our bibliometric analysis and important substantive phenomena suggest a range of questions for future research. These include the emergence of speaking to (rather than physically controlling) smart objects, the continued shift toward using our hands (vs. voices) in interpersonal communication, and important multi-modal contexts in which language is but one source of information. We also touched on ways research can return to fundamental and relatively overlooked language topics such as grammar, information processing, and memory. Marketing's "golden age" of language is increasing the permanence,

accessibility, and salience of the words consumers and marketers produce everyday, which should continue to make language even more central to understanding consumers in the years ahead.

Fortunately, consumer researchers are well positioned to take advantage of these shifts. The field has proven uniquely adept at blending methods (e.g., experimental and quantitative) and theories (e.g., from psychology and sociology) to offer meaningful insights. Furthermore, the growth in data accessibility and text analysis tools (Berger and Packard 2022; Humphreys and Wang 2018) should make this area even more accessible. Hopefully, consumer researchers can take advantage of this emerging opportunity to extract wisdom from words.

DATA COLLECTION INFORMATION

The articles for the bibliometric analysis were collected by a research assistant under the supervision of the first and second authors in the Summer of 2022. Bibliometric analysis was conducted by the first author. The article collection process and the list of all articles analyzed are provided in the web appendix accompanying the online version of this article.

REFERENCES

Akinnaso, F. Niyi (1982), "On the Differences between Spoken and Written Language," *Language and Speech*, 25 (2), 97–125.

Berger, Jonah and Grant Packard (2022), "Using Natural Language Processing to Understand People and Culture," American Psychologist, 77 (4), 525–37.

Berger, Jonah, Ashlee Humphreys, Stephan Ludwig, Wendy Moe, Oded Netzer, and David Schweidel (2020), "Uniting the Tribes: Using Text for Marketing Insight," *Journal of Marketing*, 84 (1), 1–25.

Berger, Jonah and Raghuram Iyengar (2013), "Communication Channels and Word of Mouth: How the Medium Shapes the Message," *Journal of Consumer Research*, 40 (3), 567–79.

50 YEARS OF *JCR*

- Berger, Jonah, Grant Packard, Reihane Boghrati, Ming Hsu, Ashlee Humphreys, Andrea Luangrath, Sarah Moore, Gideon Nave, Christopher Olivola, and Matthew Rocklage (2022a), "Marketing Insights from Text," *Marketing Letters*, 33 (3), 365–77.
- Berger, Jonah, Matthew D. Rocklage, and Grant Packard (2022b), "Expression Modalities: How Speaking versus Writing Shapes Word of Mouth," *Journal of Consumer Research*, 49 (3), 389–408.
- Bonoma, Thomas and V. Leonard C. Felder (1977), "Nonverbal Communication in Marketing: Toward a Communicational Analysis," *Journal of Marketing Research*, 14 (2), 169–80.
- Boyd, Ryan L. and H. Andrew Schwartz (2021), "Natural Language Analysis and the Psychology of Verbal Behavior: The past, Present, and Future States of the Field," *Journal of Language and Social Psychology*, 40 (1), 21–41.
- Burgoon, Judee K., Laura K. Guerrero, and Valerie Manusov (2011), "Nonverbal Signals," in *Handbook of Interpersonal Communication*, ed. M. L. Knapp and G. R. Miller, Newbury Park: Sage, 239–280.
- Castelo, Noah, Maarten W. Bos, and Donald R. Lehmann (2019), "Task-Dependent Algorithm Aversion," *Journal of Marketing Research*, 56 (5), 809–25.
- Chung, Jaeyeon, Gita V. Johar, Yanyan Li, Oded Netzer, and Matthew Pearson (2022), "Mining Consumer Minds: Downstream Consequences of Host Motivations for Home-Sharing Platforms," *Journal of Consumer Research*, 48 (5), 817–38.
- Crolic, Cammy, Felipe Thomaz, Rhonda Hadi, and Andrew Stephen (2022), "Blame the Bot: Anthropomorphism and Anger in Customer–Chatbot Interactions," *Journal of Marketing*, 86 (1), 132–48.
- Eichstaedt, Johannes C., Robert J. Smith, Raina M. Merchant, Lyle H. Ungar, Patrick Crutchley, Daniel Preoţiuc-Pietro, David A. Asch, and H. Andrew Schwartz (2018), "Facebook Language Predicts Depression in Medical Records," Proceedings of the National Academy of Sciences of the United States of America, 115 (44), 11203–8.
- Fauville, Geraldine, Mufan Luo, Anna C. Queiroz, Jeremy Bailenson, and Jeffrey Hancock (2021), "Zoom Exhaustion and Fatigue Scale," *Computers in Human Behavior Reports*, 4, 100119.
- Friedman, Monroe (1985), "The Changing Language of a Consumer Society: Brand Name Usage in Popular American Novels in the Postwar Era," *Journal of Consumer Research*, 11 (4), 927–38.
- Gottschalk, Louis August and Goldine C. Gleser (1969), *The Measurement of Psychological States through the Content Analysis of Verbal Behavior*, Berkeley: Univ. of California Press.
- Haugtvedt, Curtis P. and Duane T. Wegener (1994), "Message Order Effects in Persuasion: An Attitude Strength Perspective," *Journal of Consumer Research*, 21 (1), 205–18.
- Holm, Elizabeth A. (2019), "In Defense of the Black Box," *Science (New York, N.Y.)*, 364 (6435), 26–7.
- Holler, Judith and Stephen C. Levinson (2019), "Multimodal Language Processing in Human Communication," *Trends in Cognitive Sciences*, 23 (8), 639–52.
- Humphreys, Ashlee and Rebecca Jen-Hui Wang (2018), "Automated Text Analysis for Consumer Research," *Journal of Consumer Research*, 44 (6), 1274–306.
- Iansiti, Marco and Karim R. Lakhani (2020), Competing in the Age of AI: strategy and Leadership When Algorithms and

- Networks Run the World, Cambridge, MA: Harvard Business Press
- Jones, Stanley E. and Curtis D. LeBaron (2002), "Research on the Relationship between Verbal and Nonverbal Communication: Emerging Integrations," *Journal of Communication*, 52 (3), 499–521.
- Kim, Jungkeun, Marilyn Giroux, and Jacob C. Lee (2021), "When Do You Trust AI? The Effect of Number Presentation Detail on Consumer Trust and Acceptance of AI Recommendations," *Psychology & Marketing*, 38 (7), 1140–55.
- Kronrod, Ann (2022), "Language Research in Marketing," *Foundations and Trends in Marketing*, 16 (3), 308–421.
- Kronrod, Ann, Amir Grinstein, and Luc Wathieu (2012a), "Enjoy! Hedonic Consumption and Compliance with Assertive Messages," *Journal of Consumer Research*, 39 (1), 51–61.
- —— (2012b), "Go Green! Should Environmental Messages Be so Assertive?," *Journal of Marketing*, 76 (1), 95–102.
- Landau, Mark J., Brian P. Meier, and Lucas A. Keefer (2010), "A Metaphor-Enriched Social Cognition," *Psychological Bulletin*, 136 (6), 1045–67.
- Longoni, Chiara, Andrea Bonezzi, and Carey K. Morewedge (2019), "Resistance to Medical Artificial Intelligence," *Journal of Consumer Research*, 46 (4), 629–50.
- Lowrey, Tina M. (1998), "The Effects of Syntactic Complexity on Advertising Persuasiveness," *Journal of Consumer Psychology*, 7 (2), 187–206.
- Lowrey, Tina M. and L. J. Shrum (2007), "Phonetic Symbolism and Brand Name Preference," *Journal of Consumer Research*, 34 (3), 406–14.
- Luangrath, Andrea Webb, Joann Peck, and Victor A. Barger (2017), "Textual Paralanguage and It's Implications for Marketing Communications," *Journal of Consumer Psychology*, 27 (1), 98–107.
- Ludwig, Stephan, Ko de Ruyter, Mike Friedman, Elizabeth C. Brüggen, Martin Wetzels, and Gerard Pfann (2013), "More than Words: The Influence of Affective Content and Linguistic Style Matches in Online Reviews on Conversion Rates," *Journal of Marketing*, 77 (1), 87–103.
- Luna, Diego, Torsten Ringberg, and Laura A. Peracchio (2008), "One Individual, Two Identities: Frame Switching among Biculturals," *Journal of Consumer Research*, 35 (2), 279–93.
- Marinova, Detelina, Sunil K. Singh, and Jagdip Singh (2018), "Frontline Problem-Solving Effectiveness: A Dynamic Analysis of Verbal and Nonverbal Cues," *Journal of Marketing Research*, 55 (2), 178–92.
- Markus, Hazel and Paula Nurius (1986), "Possible Selves," American Psychologist, 41 (9), 954–69.
- McQuarrie, Edward F. and David Glen Mick (1992), "On Resonance: A Critical Pluralistic Inquiry into Advertising Rhetoric," *Journal of Consumer Research*, 19 (2), 180–97.
- —— (1996), "Figures of Rhetoric in Advertising Language," Journal of Consumer Research, 22 (4), 424–38.
- Melumad, Shiri, J. Jeffrey Inman, and Michel Tuan Pham (2019), "Selectively Emotional: How Smartphone Use Changes User-Generated Content," *Journal of Marketing Research*, 56 (2), 259–75.
- Moore, Sarah G. and Brent McFerran (2017), "She Said, She Said: Differential Interpersonal Similarities Predict Unique Linguistic Mimicry in Online Word of Mouth," *Journal of the Association for Consumer Research*, 2 (2), 229–45.
- Netzer, Oded, Ronen Feldman, Jacob Goldenberg, and Moshe Fresko (2012), "Mine Your Own Business: Market-Structure

Surveillance through Text Mining," *Marketing Science*, 31 (3), 521–43.

- Netzer, Oded, Alain Lemaire, and Michal Herzenstein (2019), "When Words Sweat: Identifying Signals for Loan Default in the Text of Loan Applications," *Journal of Marketing Research*, 56 (6), 960–80.
- Novak, Thomas P. and Donna L. Hoffman (2023), "Automation Assemblages in the Internet of Things: Discovering Qualitative Practices at the Boundaries of Quantitative Change," *Journal of Consumer Research*, 49 (5), 811–37.
- Oba, Demi and Jonah Berger (2023), "How Communication Mediums Shape the Message," SSRN Working Paper, Last Accessed May 11, 2023. http://dx.doi.org/10.2139/ssrn. 4039280.
- Ostinelli, Massimiliano and David Luna (2022), "Syntax and the Illusion of Fit: How Grammatical Subject Influences Persuasion," *Journal of Consumer Research*, 48 (5), 885–903.
- Packard, Grant and Jonah Berger (2021), "How Concrete Language Shapes Customer Satisfaction," *Journal of Consumer Research*, 47 (5), 787–806.
- —— (2017), "How Language Shapes Word of Mouth's Impact," Journal of Marketing Research, 54 (4), 572–88.
- Packard, Grant, Sarah G. Moore, and Brent McFerran (2018), "(I'm) Happy to Help (You): the Impact of Personal Pronoun Use in Customer–Firm Interactions," *Journal of Marketing Research*, 55 (4), 541–55.
- Pancer, Ethan, Vincent Chandler, Maxwell Poole, and Theodore J. Noseworthy (2019), "How Readability Shapes Social Media Engagement," *Journal of Consumer Psychology*, 29 (2), 262–70.
- Pennebaker, James (2013), *The Secret Life of Pronouns*, New York, NY: Bloomsbury.
- Petropoulos, Georgios (2022), "The Dark Side of Artificial Intelligence: Manipulation of Human Behaviour," *Bruegel-Blogs: Gale Academic Onefile*, Last Accessed May 1, 2022. Gale.com/apps/doc/A691416100AONE?u=anon~df3c7f46&sid=googleScholar&xid=f9902e79.
- Phillips, Barbara J. (2000), "The Impact of Verbal Anchoring on Consumer Response to Image Ads," *Journal of Advertising*, 29 (1), 15–24.
- Pogacar, Ruth, Alican Mecit, Fei Gao, L. J. Shrum, and Tina M. Lowrey (2022), "Language and Consumer Psychology," *APA Handbook of Consumer Psychology*, 451–70. doi:10.1037/0000262-019.
- Rocklage, Matthew D., Derek D. Rucker, and Loran F. Nordgren (2018), "The Evaluative Lexicon 2.0: The Measurement of Emotionality, Extremity, and Valence in Language," *Behavior Research Methods*, 50 (4), 1327–44.
- Rocklage, Matthew D., Derek D. Rucker, Sharlene He, and Loran F. Nordgren (2022), "Beyond Sentiment: The Value and Measurement of Consumer Certainty in Language," *Journal of Marketing Research*. doi:10.1177/00222437221134802.
- Rubin, Donald L. (1987), "Divergence and Convergence between Oral and Written Communication," *Topics in Language Disorders*, 7 (4), 1–18.
- Schellekens, Gaby A. C., Peeter W. J. Verlegh, and Ale Smidts (2010), "Language Abstraction in Word of Mouth," *Journal of Consumer Research*, 37 (2), 207–23.

Schmitt, Bernd H. and Shi Zhang (1998), "Language Structure and Categorization: A Study of Classifiers in Consumer Cognition, Judgment, and Choice," *Journal of Consumer Research*, 25 (2), 108–22.

- Sela, Aner, Christian Wheeler, and Gulen Sarial-Abi (2012), "We Are Not the Same as You and I: Causal Effects of Minor Language Variations on Consumer Attitudes toward Brands," Journal of Consumer Research, 39 (3), 644–61.
- Shen, Hao and Jaideep Sengupta (2018), "Word of Mouth versus Word of Mouse: Speaking about a Brand Connects You to It More than Writing Does," *Journal of Consumer Research*, 45 (3), 595–614.
- Sherry, John F. and Eduardo G. Camargo (1987), "'May Your Life Be Marvelous:' English Language Labelling and the Semiotics of Japanese Promotion," *Journal of Consumer Research*, 14 (2), 174–88.
- Snyder, Rita (1992), "Comparative Advertising and Brand Evaluation: Toward Developing a Categorization Approach," *Journal of Consumer Psychology*, 1 (1), 15–30.
- Spadafora, Anthony (2022), "Zoom Is Driving Further into the Customer Service Market," *Techradar*, Last Accessed May 1, 2022. https://tinyurl.com/2p8sreka" https://tinyurl.com/2p8sreka.
- Stern, Barbara B. (1989), "Literary Criticism and Consumer Research: Overview and Illustrative Analysis," *Journal of Consumer Research*, 16 (3), 322–34.
- —— (1991), "Who Talks Advertising? Literary Theory and Narrative 'Point of View'," *Journal of Advertising*, 20 (3), 9–22.
- Timoshenko, Artem and John R. Hauser (2019), "Identifying Customer Needs from User-Generated Content," *Marketing Science*, 38 (1), 1–20.
- Tirunillai, Seshadri and Gerard J. Tellis (2012), "Does Chatter Really Matter? Dynamics of User-Generated Content and Stock Performance," *Marketing Science*, 31 (2), 198–215.
- Stock Performance," *Marketing Science*, 31 (2), 198–215.
 Tocci, Meghan (2021), "Current Texting and SMS Marketing Statistics," Last Accessed May 1, 2022. https://tinyurl.com/2s37xxve" https://tinyurl.com/2s37xxve.
- Wang, Xin (Shane), Jiaxiu He, David J. Curry, and Jun Hyun (Joseph) Ryoo (2021a), "Attribute Embedding: Learning Hierarchical Representations of Product Attributes from Consumer Reviews," *Journal of Marketing*, 86 (6), 155–75.
- Wang, Qiaosi, Koustuv Saha, Eric Gregori, David Joyner, and Ashok Goel (2021b), "Towards Mutual Theory of Mind in Human-AI Interaction: How Language Reflects What Students Perceive About a Virtual Teaching Assistant," in *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*, Vol. 384, 1–14.
- Xu, Louisa (2021), "A Golden Age for Natural Language," Forbes, Last Accessed January 31, 2023. www.forbes.com/sites/louisaxu/2021/12/01/a-golden-age-for-natural-language" www.forbes.com/sites/louisaxu/2021/12/01/a-golden-age-for-natural-language
- Yorkston, Eric A. and Gustave E. de Mello (2005), "Linguistic Gender Marking and Categorization," *Journal of Consumer Research*, 32 (2), 224–34.
- Zhang, Meng and Xiuping Li (2012), "From Physical Weight to Psychological Significance: The Contribution of Semantic Activations," *Journal of Consumer Research*, 38 (6), 1063–75.