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SEMIOTIC RESOURCES OF GUSTATORY MODALITY IN HEALTHY BEVERAGE ADVERTISING (BASED ON ENGLISH)

Abstract. This article analyzes semiotic resources used to describe gustatory qualities of juice, sparkling water, functional beverages, tea, coffee, and plant-based milk on the websites of 25 beverage manufacturers. Lexical units are analyzed in terms of their meaning, frequency, combinability, emotional valence, degree of intensity, and multisensoriality while semiotic elements are examined in terms of meaning potentials and alignment with the verbal part of the advertising messages. Traditionally, the sense of taste received less attention from scholars than other senses, however, this has started to change in recent years. In particular, the language of taste and flavor is important for advertisers, as it helps to increase the sensory appeal of marketed products. This is not least because of the link between taste modality and emotional reactions, which influence consumer preferences and behaviors. For this reason, advertisers emphasize both gustatory characteristics and healthfulness of beverages even though healthy foods are traditionally perceived as not very enjoyable in taste. Taste and healthfulness are linked in product descriptions with the help of stylistic devices such as alliteration, assonance, parallelism, and personification. Rich taste is highlighted via hyperbole, metaphor, and evaluative adjectives that act as intensifiers. Healthfulness is emphasized via the link between taste and its natural source, verbalized with the help of nuanced terms and grammatical constructions. Adjectives of the interoceptive modality are used to establish a connection between taste and well-being. Scalar language is used to convey the subtleness of taste, which aligns with a health-conscious mindset. Furthermore, the findings demonstrate that visual elements such as color and imagery complement gustatory descriptions, reinforcing brand messages of health and transparency. The findings contribute to sensory linguistics and marketing by revealing strategies and means used to convey taste perception in a way that aligns with modern consumer values of health and naturalness. This interdisciplinary study bridges linguistics, marketing, and semiotics, and may be of interest to researchers and industry professionals.

Keywords: sensory linguistics, gustatory language, beverage advertising, healthy drinks, natural food, marketing strategies, semiotic analysis.

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СЕМІОТИЧНІ РЕСУРСИ ВИРАЖЕННЯ СМАКОВОЇ МОДАЛЬНОСТІ В РЕКЛАМІ КОРИСНИХ НАПОЇВ (НА МАТЕРІАЛІ АНГЛІЙСЬКОЇ МОВИ)

Анотація. У статті досліджуються засоби передачі смакових характеристик соків, газованої води, функціональних напоїв, чаю, кави та рослинного молока на вебсайтах 25 виробників корисних напоїв. Проаналізовані значення, частотність, комбінаторність, мультисенсорність лексичних одиниць, візуальні та інші семіотичні елементи розглянуті у контексті їх узгодженості з вербальною частиною рекламних повідомлень. Смакова лексика є недостатньо дослідженою у лінгвістиці, однак саме вона відіграє важливу роль в рекламі харчових продуктів, оскільки допомагає підкріпити їх сенсорну привабливість. Смакові відчуття викликають емоційні реакції, які впливають на поведінку та вибір споживачів, тому рекламні повідомлення акцентують увагу цільової аудиторії як на користі, так і на високих смакових якостях корисних напоїв. Смакові характеристики напоїв та користь для здоров'я поєднуються в описах за допомогою таких стилістичних прийомів, як алітерація, асонанс, паралелізм та персоніфікація. Аналіз матеріалів вебсайтів свідчить про високу частотність смакових термінів, які передають природне походження складників напоїв та відсутність штучних смакових добавок. Базовий смаковий термін "taste" вживається більш часто у порівнянні з рекламою конвенційних харчових продуктів, де перевага віддається його синоніму "flavor", який може конотувати штучність. Вживання лексичних одиниць, які передають низку інтенсивність смаку, може сприяти переконанню споживача у відсутності штучних підсолоджувачів і смакових добавок. Мультисенсорні терміни, метонімія, та порівняння дозволяють представити споживання напоїв як мультисенсорний досвід, що включає ольфакторну, слухову, візуальну, тактильну, та інтероцептивну модальності. Опис смакових профілів напоїв за

допомогою термінів з різними сенсорними модальностями дозволяє асоціювати їх смак з порами року, подорожами до географічними локацій, де вирощуються їх натуральні інгредієнти, та приемними враженнями. Така репрезентація смакових якостей узгоджується з уявленнями про здоровий і насичений спосіб життя. Невербальні елементи – зображення та колір – доповнюють смакові описи та підсилюють брендинг, орієнтований на здоров'я.

Ключові слова: сенсорна лінгвістика, смакова лексика, реклама напоїв, корисні напої, натуральні продукти, маркетингові стратегії, семіотичний аналіз.

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Sensory perception is a fundamental aspect of human experience, yet the linguistic representation of certain senses, such as taste, remains understudied [2]. The verbalization of taste perception, including its cultural aspects and conceptualization, is examined within the interdisciplinary field of Sensory Linguistics which draws from Cognitive Linguistics, Psycholinguistics, Neurolinguistics, Semantics, Semiotics, and some other fields [27]. Its early roots trace back to 350 BCE, when Aristotle categorized sensory experiences into five senses and suggested that without sensory input, humans would not be able to understand the world around them [1]. For Aristotle the mind was akin to a mental canvas ready to absorb the brushstrokes of experience, which would enable the conceptualization of the world. Later, building on this idea, John Locke suggested that, apart from a few basic instincts, it is sensory input and experience that enable individuals to develop knowledge, thoughts, and ultimately language [14]. In the 20th century, George Lakoff and Mark Johnson expanded on these classical ideas within the framework of Cognitive Linguistics, illustrating how deeply embodied experiences influence human cognition and the way language encodes meaning [13]. The senses of sight, hearing, touch, and smell have been shown to frequently serve as source domains for metaphorical language related to the intellect, intuition, and emotion [19]. Subsequent advancements in psycholinguistics and

neurolinguistics not only provided empirical evidence for the theory of embodied cognition, but also helped to clarify the meaning of sensory words [27]. Additionally, semiotic studies enriched the field of Sensory Linguistics by examining cross-modal correspondences between the senses. This has enabled not only the advancement of theoretical research in linguistics, but also its real-world application.

A lot of studies have lately been focused on taste. Studies of new gustatory terms have gained importance in the light of continuous development of sensory vocabularies to cater to the needs of the food industry [27, p. 28]. The analysis of sensory lexemes in terms of their frequency, combinability, emotional valence, and scalability across various categories of products may contribute to the development of effective advertising strategies. Research in the related field of Culinary Linguistics reveals how language is used to describe food and eating experiences across various food production sites, including cultural variations in the descriptions. Studies have also focused on multisensorial terms and expressions. Even though *the five senses folk model* separates such senses as taste, smell, and touch, neurophysiological evidence suggests that they share the same neural substrate [7; 21; 23]. Consequently, linguistic representations of these senses are deeply interconnected. It has been argued whether the expressions that describe one sense in terms of another constitute synesthetic metaphors or literal descriptions of highly integrated perceptual modalities. As gustation and olfaction are the most ineffable senses, the study of metaphors, similes, and metonymy facilitates understanding how these figures of speech are employed to compensate for the lack of specific terms to describe flavors. By examining how these senses are encoded in languages around the world, researchers may uncover language universals and lacunas, offering the potential to advance theories about the limits and possibilities of linguistic representation. [2; 18; 20].

The advent of online communication calls for the implementation of a multimodal approach to sensory descriptions where sensory lexis can be supplemented by graphic and auditory elements. This is especially important in marketing and advertising, as multimodal communication enables marketers to appeal to multiple senses

simultaneously, increasing the emotional and physical connection of consumers with the product. Visual elements, such as color, texture, and typeface as well as the auditory characteristics of music are often aligned with gustatory perceptions, creating a cohesive sensory experience [8; 9; 16; 17; 24].

In recent years, the world has seen a significant increase in diet-related health issues. Specifically, cardiovascular issues have become the leading cause of death in the world accounting for 17.9 million of deaths annually [11]. Food manufacturers have responded with an increase in production and advertising of healthy food choices [10]. Therefore, it is of special interest to analyze sensory descriptions in healthy food advertising. For this purpose we chose 25 websites of companies that produce juice (*Naked Juice*, *Suja Juice*, *Evolution Fresh*, *Happy Moose Juice*), sparkling water (*La Croix*, *Ardor*, *Sparkling Ice*, *Waterloo Sparkling Water*), functional beverages (*Gorgie*, *Recess*, *OLIPOP*, *Poppi*), tea (*Halfday Iced Tea*, *Juni Sparkling Tea*, *Tazo Organic Teas*, *Sound Sparkling Tea*), coffee (*NuRange Coffee*, *Bulletproof Coffee*, *Purity Coffee*, *Pop & Bottle*), and plant-based milk (*BAM*, *Alpro*, *Oatly*, *Califia Farms*, *Silk*). These companies focus on the production of beverages within the health and wellness sector, hence product descriptions on their websites emphasize natural ingredients and health benefits of beverages.

The positioning of the companies within the health and wellness sector of the food market is evident from the *About / Our Story* sections of the websites: *Naked Juice*: *At Naked, we're dedicated to goodness inside our bottles ... without artificial flavors or added sugars—just how Mother Nature intended* [44] / *La Croix Sparkling Water*: *LaCroix is innocent or free of sugars, calories, sodium, and artificial ingredients* [42] / *Gorgie*: *A community, a brand, a platform on a mission to make wellness fun!* [38] / *Halfday Iced Tea*: *Classic iced tea flavor, gut-healthy benefits* [39] / *NuRange Coffee*: *Every can of NuRange is made with ingredients you can read, from sources you can trust. No preservatives, weird adaptogens, or sketchy additives* [45]. Appeal to nature (e.g., *just how Mother Nature intended*) underscores the natural origin of ingredients. Positive evaluative nouns such as *goodness*, *wellness*, and *benefits* are used to present beverages as healthful, while the negation of

potentially harmful ingredients (e.g., *free of sugars, calories, sodium, and artificial ingredients*) and appeal to ethical production practices (e.g., *made with ingredients you can read, from sources you can trust*) are used to frame beverages as safe.

Even though healthy foods are traditionally perceived as less flavorful, companies highlight rich and distinctive gustatory qualities of their products along with their positive influence on health and well-being: *Happy Moose Juice: Bursting with eye-widening flavor, each wellness shot is packed with immune boosting superfoods and powerful herbs that provide the ultimate armor to conquer anything life throws at you.* [40] / *Naked Juice: See which nutritious and delicious products you should try!* [44] / *Waterloo Sparkling Water: Waterloo was founded in 2017 with an unwavering commitment to create better-tasting, better-for-you sparkling waters that support a healthy, active lifestyle* [57] / *OLIPOP: Healthy meets delicious* [47] / *Califia Farms: All the benefits of plant-based. All the deliciousness* [33]. Health benefits and rich taste are emphasized via hyperbole and metaphor (e.g., *eye-widening flavor / powerful herbs that provide the ultimate armor to conquer anything life throws at you*). Taste and healthiness are linked through stylistic devices such as alliteration (e.g., *better-tasting, better-for-you*), assonance (e.g., *nutritious and delicious*), parallelism (e.g., *All the benefits of plant-based. All the deliciousness.*), and personification (e.g., *Healthy meets delicious*). This effort to connect the seemingly contrasting concepts may stem from the need to attract consumers in a highly competitive market.



Fig. 1. Word Frequency Visualization
in Beverage Advertising Language. Word Cloud Generator

To present flavors as healthy, companies emphasized their naturalness in product descriptions. Naturalness was conveyed in a variety of ways. Among the general gustatory nouns *taste* and *flavor*, *taste* was used 71 times whereas *flavor/flavour* – 93 times. Only the instances where these two nouns could be used interchangeably were counted. This frequency is notable compared to studies of other food types, where *taste* was either absent or used significantly less often [4; 5]. The term *flavor* seems to be more preferable in advertising, as it allows to enhance sensory appeal by referring to a multisensory experience that includes not only taste, but also smell, texture, and temperature of food [2, p. 20]. At the same time, *flavor* appears to be incongruent in the advertising of healthy foods, as it has an additional meaning of *to give something a particular taste* [35] which may connote artificialness. For this reason, *flavor* was modified with a variety of adjectives, suggesting naturalness: *Coconut water with other natural flavors* [44] / *Delightfully ripe, authentic flavor* [57] / *Sweet, but with an edge. Are we describing you or this juicy flavor?* [49] / *Come for the fresh flavor of bright citrus and tropical fruits* [36]. In 4 instances, the absence of artificial flavors was explicitly stated, e.g., *No added sugars or artificial flavors* [44].

The use of the noun *taste* was not limited to the instances where the whole substance was made of the plant that gave it taste, such as *oat taste* in the descriptions of plant-based milk. It was also used when a particular taste was added and the use of the word *flavor* would convey the meaning more precisely according to its denotation: *This berry taste packs a punch* (of a flavored sparkling water) [30] / *Strawberry Peach blends the sweet, vibrant taste of strawberries with the luscious, juicy flavor of peaches* (of a flavored sparkling water) [42] / *Nothing at all's going to get between you and that light and tropical coconut taste!* (of a plant-based milk with added coconut flavor) [29].

Among the basic taste terms, only *sweet* (146 occurrences) and *bitter* (2) were used although bitterness was also conveyed by the adjective *zesty* (12), which links the taste to aromatic essential oils found in the peel of citrus fruits. The naturalness of sweet taste was highlighted either by the use of adverbs (*An innocently sweet twist*

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*that Makes your taste buds sing!! [42] / Rooibos tea provides a healthy caffeine-free base with a **naturally** sweet vanilla flavor. [32]) or adjectives (*The unique tartness of yuzu paired with the succulent sweetness of pineapple creates a vibrant, bubbly experience that's perfect for any occasion! [41]*), or by providing a reference to the natural source of taste (*Piña Fraise combines the tartness of freshly squeezed pineapple with the sweetness of fresh-picked strawberries [42] / earthy greens with a subtle sweetness from apple [55] / Sunkissed pineapple, sweet apple, ripe banana, creamy coconut milk & juicy orange form an irresistible, island-inspired blend. Drink umbrella optional [44]*).*

Sourness was indicated by the adjective *tart* that is mainly associated with fruits [2, p. 61]. It was used universally to indicate the sourness of citrus (8), cherry (5), berry (3), pineapple (1), apricot (1), apple (1), and quince (1), e.g., *Our Cranberry Iced Tea is a tart and refreshing, gut-healthy twist on a classic holiday favorite [39]*. Noteworthy, the basic taste term *sour* was entirely absent from the descriptions. This can be explained by the fact that *sour* typically carries negative emotional valence, and gustatory words are closely tied to emotional processes in the brain [26]. Consequently, the use of gustatory words with positive emotional valence, such as *tart*, is important not only to attract customers but also to suggest health and wellness, which are associated with positive emotions.

The adjectives *tangy*, *bright*, and *crisp*, were used to convey sharp, stimulating, and pleasant gustatory sensations of the sour taste [34; 43]. *Tangy* is a cognitive synonym of *lemony*, *lemonlike*, and *tart* [28]. It was used predominantly to describe the sourness of lemon and other citrus fruits (11), e.g., *This sparkling adaptogenic tea perfectly balances the bitterness of your classic tea with the tangy & sweet taste of fresh squeezed lemon [41] / Treat your tastebuds to a vibrant blend of juicy oranges, tangy grapefruit, and spicy ginger that's rich with Vitamin C [36]*, and in one instance hibiscus (*Tangy in all the right places, the Blueberry & Hibiscus are bright and refreshing with subtle hints of Cinnamon [53]*). The cross-modal adjective *crisp* was used in the taste descriptions of citrus fruits (8), apples (5), cherries (2), pineapple (1), grape (1), and

passion fruit (1), e.g., *A super refreshing n' tasty blend of ripe strawberry and **crisp lemon** that's so bold, it just asked for your number* [49]. In addition to connoting sourness, *crisp* denotes freshness and firmness of edible plants, suggesting the natural origin of taste, e.g., *With a reimagined blend of **crisp apple**, aromatic spices and sweet cider notes that transports you to a chill evening around the fire* [57]. *Bright* was utilized in the descriptions of flavor profiles containing citrus fruits (16), pineapples (2), berries (2), cherries (2), hibiscus (1), and strawberry (1), e.g., ***bright grapefruit flavor** with a juicy tangerine finish* [51]. Consumers might perceive the flavors described as bright as healthy. It has been demonstrated that people associate high-pitched sounds and bright colors [2]. At the same time high-pitched sounds are often associated with smallness or lightness in size, e.g., the chirping of birds. Given that healthy foods are also associated with lightness and small portions, those described as *bright* might be perceived as healthier options [18].

The adjective *creamy* (79) is associated with the newly proposed basic taste *fat* [12]. It was used to convey cream-like taste of beverages made of soy, nuts, oats and coconut, e.g., *Smooth, **creamy-tasting oats** could have been made for coffee* [29] / *Subtly sweet and lusciously creamy, Coffee Bean sips like a smooth, whipped latte dream* [55] / *Hazelnut Original. Even better roasted and blended into a **creamy tasting drink** that's naturally low in fat* [29] / *Slightly sweet and a bit **creamy flavor** of coconut* [42]. Another adjective, *rich* (12), was used to indicate a taste associated with high fat content [34], e.g., *What's better than just **rich chocolate-y flavor**?* [44] / *Pocket-sized and easy-to-squeeze oat drink with a **rich** taste for people who like their coffee or tea with milk but can't or don't want to drink milk* [46] / *Spiced and smooth, Vanilla Cinnamon is a comforting and delectable blend of vanilla bean, cinnamon, nutmeg & **rich coconut cream*** [55] / *Almondmilk. Smooth, seriously **rich** and made with real cocoa* [52]. The less frequent use of the word *rich* compared to *creamy* is not surprising, as high fat content is considered to be unhealthy. Additionally, descriptions of rich, creamy flavors were combined with reassurances that address potential health concerns, e.g., *100% **luxurious flavor!** It doesn't*

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taste like diamonds or anything, but it's perfectly creamy without all the saturated fats you usually get when you drink something creamy. [46] / Like all our oat drinks, Whole has that good unsaturated fat that contributes to maintaining a recommended cholesterol level if you let it replace the saturated fats in your daily diet. And while that might sound wholesome, the taste is decadently rich enough to make you feel like you're breaking at least one social rule [46].

Delicious (57) was the most frequent gustatory adjective that expresses hedonic value. This term was also among the most frequent ones in advertising of other food types [5; 6]. *Delicious* was compounded and blended with the noun *berry* to indicate a specific natural flavor: *there's nothing tiny about the berry-delicious flavor, perfect to launch you into the day loaded with energy* [44] / *Lower Sugar Berrylicious Ready for a juicy secret?* [44] The fusion of *delicious* with *berry* could be attributed to alliteration, i.e., the repetition of acoustically similar vowels /e/, /ə/, /i/, and /ɪ/ – /'ber.i dɪ'lɪsəs/ [34]. The second most used hedonic, gustatory adjective was *juicy* (28), followed by *luscious* (8), and *tasty* (8). *Luscious* is a synonym of *juicy*, indicating a higher juice content compared to *juicy* [34]. Other adjectives in the category included a synonym of *juicy* *succulent* (3), *delectable* (2), *mouthwatering* (2), and *yummy* (1). Noteworthy, all of these adjectives are multisensory. *Delicious*, *juicy*, *tasty*, and *yummy* have been normed to have the dominant gustatory modality, however, with weak to moderate modality strength [2, p.54; 15, p.4]. This contributes to understanding that food perception is an inherently multisensorial experience. Overall, the words suggestive of the natural origin of the ingredients (*juicy*, *luscious*, *succulent*, *berrylicious*, and *berry-delicious*) formed a large group of gustatory adjectives with hedonic value (41).

Apart from using a variety of gustatory terms, taste profiles were also conveyed descriptively, e.g., *Picture a field with rows of red, juicy, sun-ripened strawberries. Now imagine these same strawberries teaming up with creamy vanilla in a bubbly soda sensation we call Strawberry Vanilla Real Fruit Soda. Welcome to better-for-you soda heaven.* [36] / *The oranges in Orange Squeeze Real Fruit Soda grow on trees. Real trees, with leaves. We pick the*

best of this sunny crop, run it through the juicery, add a blast of bubbles and proudly present a one-of-kind soda experience. [36] / *Taste the difference in orange juice that tastes like oranges, not "OJ". Our vitamin C-packed oranges are squeezed at the peak of sweet flavor* [36]. Such descriptions convey authenticity in both taste and sourcing, referencing idyllic, natural settings where the plants grow (e.g., *Picture a field with rows of red, juicy, sun-ripened strawberries*), and become flavorful drinks (*Now imagine these same strawberries teaming up with creamy vanilla in a bubbly soda sensation we call Strawberry Vanilla Real Fruit Soda.*). Beverage production is presented as a non-mechanized process, where the best fruits are carefully selected and squeezed (e.g., *We pick the best of this sunny crop, run it through the juicery, add a blast of bubbles and proudly present a one-of-kind soda experience.*) Juicery typically refers to a small-scale, artisanal facility, where fresh juice is made and sold. This stands in contrast to large, mechanized factories of massive production, where drinks are treated with preservatives to enable their distribution and sale in distant locations. The process of carbonation is presented as simply adding a blast of bubbles. In another description, the fruits are personified to remove a human agent from the production process of beverages. Instead, the process is presented as a natural and harmonious collaboration between fruits: *these same strawberries teaming up with creamy vanilla in a bubbly soda sensation.* Additionally, the rhetorical strategy of othering is used to contrast the natural gustatory qualities of advertised drinks with those of conventional ones (e.g., *Taste the difference in orange juice that tastes like oranges, not "OJ"*).

The brands employed metonymic expressions (e.g., *Cherry Blossom. A botanical twist of sweet and tart, the dazzling taste of blossoming Spring!* [42] / *Squeeze the Day! A hint of lemon. A smooth finish. Savor the taste of the Amalfi Coast* [42]) and similes (e.g., *Our crush tastes like summer in a can, refreshingly light but with enough sparkle to give you a little kick* [38] / *Alpro Barista. With a subtle hint of coconut, it goes great with iced coffees. But if you're really feeling adventurous, it brings a tropical twist to cappuccinos and white coffees – rich, foamy and slightly fragrant.*

Like sending your favourite coffee on an all-inclusive to the Caribbean. [29]) to aestheticize gustatory descriptions. Both stylistic devices were used to convey naturalness either by linking gustatory qualities to natural cycles (*taste of blossoming Spring!*; *tastes like summer in a can*), or by anchoring them in the geographical context associated with the origin of a taste (*taste of the Amalfi Coast*; *brings a tropical twist .. Like sending your favourite coffee on an all-inclusive to the Caribbean*).

Additionally, simile extended gustatory experiences into other sensory domains, comparing them to other sensory experiences. For instance, the sentence *The sweet, juicy strawberries mingle perfectly with the floral essence of hibiscus, creating a flavor that feels like a soothing breeze on a warm evening* [41] evokes a blend of sensory impressions: visual (soft lighting and orange hues of *a warm evening*), tactile (cooling sensations of *a soothing breeze*), and interoceptive (a sense of comfort and relaxation suggested by *soothing* and *warm evening*). Another example, *Like a sunny summer day at the ballpark. Our Classic Lemonade is soooo refreshing, your taste buds will be like, "dayuum, this is lip-smackin' good!"* [40], activates visual (bright sunshine), tactile (the warmth of summer on the skin), auditory (the sound of enjoyment and satisfaction after tasting a drink) and interoceptive sensations (the lively atmosphere of a baseball game). Such descriptions connect flavors to emotionally uplifting, rejuvenating, and pleasant experiences, suggestive of a healthy and fulfilling lifestyle.

A variety of adjectives with interoceptive modality were used to suggest invigoration or improvement of one's mood: *Fuel your body and indulge in the refreshing taste of berries* [44] / *Zesty flavor comes from our favorite little limes* [30] / *This sparkling adaptogenic tea perfectly balances the bitterness of your classic tea with the tangy & sweet taste of fresh squeezed lemon* [41] / *With the perfect blend of juicy cherry sweetness and a zesty lime twist, it delivers a crisp, vibrant flavor in every sip!* [41] / *Made with real matcha green tea powder plus our creamy almond milk, it's a simple and easy way to enjoy matcha's bright and uplifting flavor at home—no matcha whisk required* [33] / *A bright lemonade flavor with a zing of ginger,*

*touch of pineapple, a hint of heat and only 2 grams of sugar per bottle! [55]. The most frequent of them was *refreshing* (56), followed by *bright* (21), *crisp* (13), *zesty* (12), *tangy* (12), *vibrant* (11), *uplifting* (5), and *zing* (2).*

Another adjective, *soothing* (5), links flavors to the sensations of calmness and comfort, e.g., *Sparkling Ice +Caffeine Tea + Lemonade is bursting with the perfect blend of zesty, fruity and soothing flavors with a kick of caffeine* [54].

Scalar language pointing at subtleness of flavor was abundant: *sweet notes from honey* (34) [32; 33; 42; 47; 50; 51; 53; 55; 56; 57] / *a hint of flavor* (28) [31; 32; 36; 40; 42; 47; 48; 51; 52; 55] / *the right amount of taste* (12) [33; 38; 39; 52; 55] / *a less sweet taste* (12) [33; 44; 46; 48; 51; 52] / *a subtle almond taste* (11) [29; 42; 48; 53; 54; 55; 56] / *subtly sweet taste* (9) [29; 33; 55] / *a light taste of cocoa* (8) [29; 30; 38; 45; 53] / *this lightly caffeinated flavor* (4) [49; 53; 54; 55] / *a bit creamy flavor of coconut* (3) [42; 52] / *a delicate, creamy taste* (2) [29; 47] / *a trace of this particular fruit is added for a refreshing twist on tropics* (1) [42]. Subtle flavors suggest that the drink is not overloaded with artificial sweeteners or flavors and therefore natural. The absence of artificial flavoring was highlighted through the descriptors *unsweetened* (11) and *unflavored* (3).



Fig. 2. Olipop Functional Beverage

Subtleness is also conveyed semiotically through colors of low intensity, especially in the categories of sparkling water, functional drinks, and sparkling tea, as regular drinks in these categories are rich in flavor. The preferred packaging background colors in these categories were white and pastel, e.g., as demonstrated in Figure 2.

Additionally, studies of the relationship between color and taste/flavor suggest that intense food coloring may lead adult consumers to perceive products as artificial [22]. Therefore, the use of low intensity colors helps to avoid this perception.



Fig. 3. Ardor – Pink Grapefruit Sparkling Water



Fig. 4. Happy Moose Juice – Ingredients of Feel Mo' Betta Wellness Shot

All but five brands across all the categories of beverages visually represented their natural ingredients and/or sources of flavor. The brands *Naked Juice*, *La Croix*, *Sparkling Ice*, *Waterloo Sparkling Water*, *Gorgie*, *OLIPOP*, *Poppi Halfday Iced Tea*, *Tazo Organic Teas*, *Juni Sparkling Tea*, *BAM*, *Alpro*, *Califia Farms*, *Silk* illustrated the ingredients/sources of flavor directly on the packaging (e.g., Fig. 2). The websites of the brands *Evolution Fresh*, *Ardor*, *Sound Sparkling Tea*, *Happy Moose Juice*, *Bulletproof Coffee*, and *Purity Coffee* featured photographs of beverages alongside their ingredients/sources of flavor – fresh fruit, vegetables, and coffee beans (e.g., Fig. 3). These visuals help to construct a narrative of naturalness and authenticity that aligns with a health-conscious mindset. According to Roland Barthes, such images function as signs with both denotative and connotative meanings [3]. On the surface, they denote the ingredients and/or sources of flavor used in the beverages, but they also carry connotations of purity, freshness, healthfulness, and a connection to nature, creating a myth that equates consuming these products with the benefits of consuming fresh fruit and vegetables.

Furthermore, *Happy Moose Juice* represented the ingredients as infographics under each beverage description (e.g., Fig. 4). This approach allows to reinforce the perception of naturalness and transparency in the product, as well as demonstrate the absence of any artificial, harmful, or unnecessary additives. Additionally, this communicates the commitment of the brand to clean-label practices, which align with consumer preferences for authenticity and health-conscious choices. Such an approach not only conveys the sensory appeal of the ingredients but also aligns the product with broader trends in natural and sustainable food marketing [25].

These findings demonstrate the strategic use of sensory language and semiotic resources in healthy beverage advertising to bridge the gap between taste perception and consumer preferences for health-conscious products. The advancements in food science have enabled the simulation of virtually any taste by means of artificially created substances. Therefore, it is important for advertisers to highlight the natural origin of taste. This is achieved through specific vocabulary associated with fruity flavors, by providing references to the natural sources of taste, the inclusion of imagery of fruits and vegetables, as well as the avoidance of linguistic and semiotic means that might suggest artificialness.

Even though such terms as *sweet* and *creamy* do not suggest healthfulness, their prevalence in gustatory descriptions is hardly surprising, as the perceptions of sweetness and fat are valuable evolutionary traits that guide the ingestion of food with a high caloric content to ensure survival. Consequently, the use of these words increases the appeal of advertisements by tapping into deep-seated sensory preferences. The attractiveness of advertising is further enhanced by the frequent use of terms with positive emotional valence.

Since flavor is a multisensory experience, advertisers often use terms that encompass not only gustatory but also olfactory, tactile, and auditory modalities. However, these terms are sometimes ambiguous, making it unclear which sensory modality they specifically reference. Nevertheless, this multisensory approach enhances the attractiveness of advertisements, making them more engaging and memorable.

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