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Ice Cream In Sensory Experiences (Based On English)

Olfactory, gustatory and tactile modalities are turning into a steady trend of multidisciplinary research. The investigation of these modalities in world languages might reveal language universals and lacunas, contribute to studies of synesthesia in cognition and communication, entail compiling sensorial glossaries. Packaging of gustatory modality differs a lot in world languages depending on foodstuff, ingredients source, diet, food culture. Sensorial perception of ice cream, a globally popular treat, might be a promising object for comparative, typological and cognitive studies in Linguistics, for the analysis of combinability and frequency of sensorial lexemes, rise of new intensifiers, multisensoriality, hierarchy of senses, low/ high intensity, i.e. scalability of sensory words. It might contribute to more effective advertising based on sensorial experience and expectations in different language communities. Comparison of sensorial lexemes with positive and negative evaluative meaning will help to reveal the gap in ice cream properties promoted by the companies and assessed by customers in reviews. Ice cream perception is complex and characterized by multisensoriality. To describe ice cream perception in sensory modalities in English advertisements, customers' reviews, articles in the newspapers were analyzed. Two parameters of the ice cream perception— taste and texture — look the most important because in advertisements, reviews, comments gustatory and tactile modalities are mentioned as the most important characteristics of the dessert. Visual perception of ice cream turns out to be less significant and yields to other sensations. Audio modality becomes significant if ice cream is sold in a waffle cone. Olfactory modality turns out the least significant. "Taste" adjectives with positive evaluation — *delicious, scrumptious, indulgent, luscious, sweet* enjoy high frequency. Audio modality is expressed via adjectives *crunchy, cracking, crispy*. Tactile modality is conveyed mostly via *creamy* and *smooth* (positive evaluative meaning), *icy, glacial, watery, gritty, gummy, foamy, airy* (negative evaluative meaning). *Deliciously, velvety* are used as intensifiers in flavor descriptions.

Key words: *gustatory, ice cream, multimodality, sensory linguistics, sensory modality, synesthesia, tactile.*

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1. INTRODUCTION

Sensory linguistics is becoming one of the noticeable trends of current linguistic research [19; 29-31]. Olfactory, gustatory, tactile modalities as sensory sensations attract a lot of attention [4; 5; 7; 10; 16-18; 20; 22; 25-27]. Detailed description and cataloguing these modalities in world languages will contribute to sensory glossaries and further studies of languages typology, language universals and lacunas. The research of sensory modalities is of interest in terms of multisensoriality, synesthesia, on the one hand, and hierarchy of senses, low / high intensity, i.e. scalability of sensory adjectives, on the other hand. Analysis of gustatory modality proves language packaging of taste differs a lot in world languages depending on foodstuff, ingredients source, diets etc. Different parameters of taste acquire considerable importance depending on the food product [19]. Ice cream is the most popular dessert in the world with lots of flavors developed and advertised by manufacturers and described by consumers in their reviews. Analysis of sensorial lexemes with positive and negative evaluative meaning, of their frequency rate might help to reveal the gap in ice cream properties promoted by the companies and assessed by customers. Ice cream manufacturers seem interested in customers' voices more than other businesses therefore they conduct surveys and ask customers for opinion on regular basis. Sensorial perception of ice cream, a globally popular treat, is a promising object of research for comparative studies of languages and might help to find more effective advertising approaches based on sensorial experience and expectations in different language communities.

The article is based on the analysis of websites content of the leading ice cream manufacturers (Danone, Baskin Robbins, Nestle, Unilever, Wells Enterprises), articles, social media posts, customers' reviews, in particular, AMAZON CUSTOMERS, one of the most reliable resources of gustatory and tactile sensations expressed in English. Sensory word frequency was analyzed with *Free Word Cloud Generator* (<https://www.freewordcloudgenerator.com/generatewordcloud>). Discourse analysis, semantic analysis, and structural analysis were used as methods of research.

2. RESEARCH FINDINGS

Ice cream is one of the ancient, finest, simplest and most popular treats worldwide. The history of this sweet pleasure is full of legends, myths, stories and breakthroughs. Initially, this iced treat was a luxury accessible to the rulers only and the richest of the rich. The history of iced dessert dates back to 3000 BC when in China a **frozen mix** of milk and cooked rice was made. The initial version of ice-cream in China was further developed into a cold dessert of frozen fruit juice that was brought to Europe by **Marco Polo** in the 14th century. Another legend says that after the Mongolian invasions, this fine food reached Turkey

and Greece. Some documents around 500 BC found in Greece contain references to a substance made of **snow mixed with honey, lemon and pomegranate juice**. Modern ice cream craze started in the Middle East by the Persians who invented the first **sorbet** ("sherbet") - cold drinks made with citrus fruits when sweetened ice was crushed and mixed with flavors, fruits, and various toppings. About 100 years after, Persians started experimenting with rose-steeped water, adding fruits, spices, and flavors. Arab invasion brought sorbet to Europe. In Sicily, dominated by Arabs, local population used the snow from the volcano **Etna** in order to freeze beverages. During the period of geographical exploration when cocoa, coffee, spices were delivered to Europe ice cream flavours diversified but vanilla, chocolate and strawberry remained the most popular. Further sophistication and advancement of ice cream, growth of ice cream industry were connected with Italian cooks and entrepreneurs who developed recipes of milk and water ices. In **1565**, at the court of Caterina de' Medici in Florence, the architect **Bernardo Buontalenti** created a recipe very similar to modern ice-cream with **milk and egg white**. A century later the Sicilian chef Francesco Procopio dei Coltelli introduced a machine to produce his sorbets. In 1686 he managed to conquer the **appreciation** of **Louis XIV**. In the 18th century, ice-cream had spread in **all European capitals** and reached America where, a century later Nancy Johnson, a woman, invented the first ice-cream machine. In the 20th century **Italo Marchioni**, again the Italian, patented an edible waffle cone, portable and self-contained, that became an interesting novelty and investment. In 1851 in the USA Baltimore dairyman Jacob Fussell opened the first ice cream factory and later became the father of the wholesale ice cream industry. The invention of the first mechanical ice-cream machine by Otello Cattabriga in 1927 threatened artisanal ice-cream, the **true Italian gelato**, with extinction. Electric freezers simplified continuous refrigeration of mass-produced ice cream that resulted into a massive drop in the price of ice cream making the cold dessert increasingly popular in the world [2; 12; 14].

In the 21st century ice cream remains one of the most profitable commodities. The leading manufacturers operating in the global ice cream market are *Unilever, Inspire Brands, Inc., General Mills, Inc., Kwality Wall's, American Dairy Queen Corporation, Nestlé, Blue Bell Creameries, Cold Stone Creamery, Danone S.A., NadaMoo* [13]. Abundant books on ice cream diversity and ice cream manufacturing prove the multi-billion industry is booming [3; 6; 8-9; 13; 15; 21; 23-24; 28]. The alternative plant-based ice creams are created in response to the rise in food allergies, the increasing popularity of veganism and a surging demand for healthier options such as sugar-free ice cream, non-dairy, vegan ice cream, usually made from soy, almond, and coconut milk [11; 13]. The demand for non-dairy ice cream is

set to triple between 2017 - 2024 [11]. The increasing health consciousness among consumers is also expected to trigger the demand for premium ice creams in the upcoming years. Manufacturers are increasing their product range by including functional ingredients, organic, herbal, exotic and extraordinary (such as mushrooms) flavors launching new and innovative flavors to cater to the rising consumer consciousness toward synthetic ingredients. Ice cream manufacturers go on experimenting with bars, pops, cones, packaging. In January 2020, Northern Bloc introduced plastic-free ice-cream packaging to reduce plastic use and increase sustainability. The new *Baskin Robbins* paper packaging is 100% biodegradable, compostable and recyclable [13], *Baskin Robbins* ice cream container is resealable, reusable and recyclable. But major diversification of ice cream is still connected with new flavors.

The vanilla flavor, known for its ability to blend with most desserts and enhance the taste, is one of the most popular flavors around the world despite some critical remarks from tasters and customers as dull, boring, sad, bland, ordinary. According to a survey published in Dairy Reporter in January 2020, 84% of the consumers in the U.K. preferred the vanilla flavor over all the flavors [13]. Perception of vanilla taste reveals scalability of gustatory perception: *I am so happy I accidentally ordered this ice cream. It is absolutely delicious! It taste just like Friendly's French Vanilla. THE BEST VANILLA ICE CREAM EVER! / The best vanilla ice cream!!!!!! / Excellent vanilla flavor. / Loved the taste. True vanilla flavor / It's light but tasty vanilla flavor.*

Fusion of the three iconic flavors (vanilla, chocolate and strawberry) makes creamy mash-up known as *Neapolitan ice cream*. Generally, combination of flavors is viewed positively: *the harmonious coming together of flavours / the dash of vermouth gives it an intriguing flavor / blended with caramel in a smooth vanilla bean base / "a combination of toffee and vanilla flavoured ice cream, dipped in scrumptious choc coating and covered in delicious biscuit pieces" / The Paddle Pop is smooth and sweet and cold and shiveringly delicious. Noteworthy, shiveringly becomes an occasional intensifier while deliciously and velvety are used regularly in ice cream sensorial descriptions.*

Some flavors are popular locally like *matcha* (powder from tea green leaves) in Japan, in Kyoto, in particular, *mocha* in Yemen, *ube* (purple yam is an ingredient) or *queso* (cheese) in the Philippines, *coconut* in Thailand, *mango*, *durian*, *soursop*, *mamey* in the tropic countries [1]. Logically, sometimes descriptions of ice cream flavor in customers' reviews are perfect examples of sensorial ineffability: *.....it has a unique and complex flavor that's difficult to describe* (Matcha ice cream).

Nuts, pistachios, almond paste, marshmallows, crumbled bits of chocolate, salted caramel are the most popular additions. The increasing consumer preference for innovative and different flavors is expected to fuel the demand for the other flavors in the ice cream

market. For instance, in May 2021, Eclipse Foods launched seven new flavors including mango, passion fruit, strawberry fields, mint chip, caramel butter pecan, cookies n' cream, and peanut butter cookie dough [13]. In September 2021, Havmor, a popular brand in India, launched the world cone; the largest ice cream cone in the country with three flavors including Swiss Choco Brownie, Double Belgium Chocolate, and Nutty French Vanilla [13]. In June 2021, Keventers, India's leading dairy brand, expanded in the dessert category by launching six new ice-cream flavors including Belgian Chocolate, Alphonso Mango, Triple Chocolate, Mocha Almond Fudge Brownie, Exotic Strawberry, and Blueberry Cheesecake [13].

Flavor is the most important ice cream sensory perception but in advertising discourse flavour description with sensory lexemes is quite often replaced by emotional expectations for potential customers what becomes evident in slogans: *Ice Cream - Happy People, Happy Planet / Our goal may seem quite simple. We want to create happier moments within the communities we operate. (Unilever). Wherever customers see the Heartbrand logo around the world it means 'Here there's joy'.*

Great pleasure of ice cream tasting can be summarized by customers emotionally as well, via semantic superlatives: *CRUNCHY cookie bits, pralines and cream, fantastic! / 'Galaxy' ice cream - it is marvellous! / Snickers chocolate, but the ice cream is just DIVINE. Customers might express their highly positive gustatory sensations and emotions through evaluative adjectives and nouns, some "taste" interjections as well: *I was excited to try this flavor and it was super delicious. It's a mouth-watering dessert for everyone / This was amazing / Heaven on a stick / The fourth one is 'Galaxy' ice cream- it is marvellous! The Galaxy chocolates and the Galaxy ice creams are both heavenly (and FATTY) / The taste tingles and I am left in the clouds myself melting into a heavenly place when the cream melts in my mouth..... / I am addicted to Kulfis. I mean they can be irritatingly sweet but its got that chord of sweetness that stays with you for long, the nuts and the creamy taste is just heaven... / A chocolate-lover's dream... / I love the creamy Vanilla core topped up with the crunchy crust of chocolate and nuts.... Hmm..... Mouthwatering! / Yummy! Oh!!! Dont forget to top the cone with a bit more nutty delight!!! / The richness and slight bitterness of the dark chocolate is to die for! / Its a perfect treat to your senses! / It is available in different flavours like Pralines and Cream (too good to resist!), Chocolate (the yummy favourite which is made even yummier), etc. / So Ice Cream: the cool, wet, delicious, scrumptious, tasteful, blissful, heavenly, wonderful, delightful, divine, lovely, fantastic, brilliant, magnificent (I think you get the point) snack / Taste so much better than I expected! just wow! / Different toppings from a handful of crushed potato chips or chopped walnuts or maple syrup, you get the idea. Mmmm / No Cornetto is complete without a topping!**

As well as the cone, a sprinkle of roasted nuts on top of the Cornetto crown provides added crunchiness and an additional flavoursome crunchy note to the product eating experience. YUM! / It's just the right amount of sweet and better than a blast of air conditioning to cool the family off. Brrrr. Delicious. /

The adjective *delicious*, frequently used to describe the taste of luxury food, is quite rare in customers' reviews: *The ice-cream taste delicious. I just don't care for the chips / Delicious as good as any vanilla anywhere / Delicious rich and creamy taste.* Other adjectives, synonyms of *delicious* are *scrumptious*, *indulgent*, *luscious* are used both in advertisements and customers' comments (*Whilst deliciously indulgent, Carte D'Or Madagascan Vanilla and Cinnamon Biscuit contains 30% less fat than similar ice cream products and no artificial sweeteners/ This has to be the ice cream, which I will never get tired of it, is absolutely scrumptious! an indulgent flavour to make your mealtimes special. Elevate your desserts with a sumptuous combination of smooth and indulgent vanilla ice cream, swirled with rich chocolate brownie pieces / There is a tiny cone, of specially creamy chocolate which you savour, giving you the perfect end to the perfect ice cream. This has to be the ice cream, which I will never get tired of it, is absolutely scrumptious!*).

One of main criteria of ice cream taste perception concerns sweetness degree, thus the adjectives *sweet* and *sugary* are most often used to describe ice cream taste: *...it wasn't too sweet, it was chock-full of roasted pistachios, and it had a subtle pistachio flavor / It wasn't too sweet and tasted like real mint / a couple found it a touch too sweet/ It's not very sugary, it has just the right amount is sweetness / low sugar options/ Tasty, filling, reduced sugar / it wasn't too sweet, it was chock-full of roasted pistachios, and it had a subtle pistachio flavor. Two thumbs up / Overall, it was thick as expected but a bit on the sweet side..., not unlike those icecreams that base their flavorings churn methods on the gelato type creamery which, even when NOeggs are present still tends to contain higher sugar levels/ I like that it's not crazy sweet, it has good but not overpowering vanilla flavor, it's creamy and not filled with artificial ingredients. I find most US desserts to be overly sweet/ Perfectly balanced sweetness/ "Cloying," one sniffed/ Half the fat, twice the sugar. Even worst/ My tastebuds recoiled when I tasted this. It was way too sweet for my palate and the buttery flavor was also a turn-off.*

Low-fat, less sugar ice creams are actively promoted by manufacturers: *What's left is a thick, creamy Greek low-fat yogurt product with way less sugar (85% less sugar than average yogurts!) – still rich in protein and all the deliciousness you would expect from Light & Fit. / The new lolly references the original Twister shape, but is reimagined to look like twisted, braided strips of ice cream. Created using fruit purée and fruit juice concentrates, it delivers a delicious melon and strawberry flavour combination and meets all of the criteria of the*

Responsibly Made for Kids promise at 66 calories per portion. (Unilever)

Though *milky* can be considered the standard component of ice cream taste expectation, and the cluster *milk & cream* embodies essential ice cream qualities, they are mentioned very seldom.

Ice cream manufacturers emphasize luxury and exotic ingredients that add exquisite flavor, thus use the lexemes with positive evaluative meaning: *Delicious and instagrammable, the novel shape is created using a patented nozzle that replicates the petals of a rose. It's available in strawberry cheesecake and peach flavours/ The Magnum Double Sunlover teams coconut ice cream with a tangy mango and passionfruit swirl, white cracking chocolate and crispy coconut pieces. Magnum Starchaser Double is made of double-swirled popcorn and caramel-flavoured ice cream coated in caramel sauce, cracking milk chocolate and caramelised corn pieces, an ideal accompaniment for a night under the stars / To mark 25 years of Magnum, the brand created a limited-edition, silver-coated milk chocolate Magnum filled with Marc de Champagne flavoured ice cream and a Marc de Champagne swirl.*

Negative gustatory experience of customers is in striking contrast with beautiful and sophisticated advertising discourse: *Tastes very diluted and dumbed down. If you prefer a more milky taste, this would work / There wasn't the rich flavor of vanilla ice cream. I was so disappointed! / Not impressed by the overall taste. Not very strawberry tasting. Its like pizza from a gas station... its not really good, but its still pizza and I eat it / ... this time I felt that I got to share this - this "ice-cream" tastes absolutely ... I can't find another word - disgusting. Actually, it doesn't even taste like anything - it's completely tasteless, and the only ingredient that you sort of taste is sugar. Eating it seriously tastes like as if you were eating plain sugar out of a jar. I love ice cream and dairy stuff on general- absolutely worst I've EVER had. / it has kinda an odd flavor / the flavor was too heavy with cream and vanilla. very dense. not my favorite /you find the taste of vanilla too intense, this flavorless ice cream is just for you / The flavor was mediocre- in that there wasn't a lot of depth to the flavor ... / Many found the flavor fainter than they prefer / No fewer than five tasters used the word "subtle" to describe its wan, whisper-not-a-shout flavor/ Such artificial flavor and not pleasant at all. The strawberry taste is sour. The chocolate is bitter. Wouldn't recommend and thrown them away: 0.*

Sometimes temperature becomes significant for complete sensation ("It needs to be close to melting to sense the flavor. Eating it straight from the freezer is not so good").

Ice cream perception is not limited to flavor, it is much deeper, more complex and predetermined by multiple factors. Though sensory perception is quite subjective manufactures take it into account along with their professional vision and experience when they develop new ice cream flavors. In the 21st century ice

cream might be a highly sophisticated technological concept. “Cornetto is a complex product – rather like building a car, it has many different components that must interact perfectly. Our job is to ensure they all work together to create *the superior creamy and crunchy experience* that consumers love. If it sounds crunchy, it tastes crunchy. We worked with sensory experts to make sure our Cornetto cones deliver a satisfyingly crunchy sound. We even got the public to help us test it by asking which sounds they liked best on headphones”, says Dr Julie Merrick, Head of R&D, Global Ice Cream Brands. So, texture (*creamy*) and sound effect (*crunchy*) become the key strategies of Cornetto design. Audio sensation becomes a focal point for promoting this ice cream and Unilever website offers audio experience to the customers — to listen to the recording and hear the difference *crunchy VS crispy*. Sound, audio sensation, is emphasized by manufacturers as one of the most persuasive temptations for customers: “*And to achieve the ultimate crunchy cone experience we need four things: We want every cone to remain as crunchy as when it is freshly baked, so that it retains that indulgent, buttery, bakery taste. That means ensuring how and where we store the cones is well controlled for both humidity and temperature / A Cornetto’s crunchiness is delivered by its iconic cone with its characteristic chocolatey tip... The adjectives revealing sound effects of ice cream tasting are *crunchy, cracking*, less often *crispy*. Audio modality is indispensable from other sensations in ice cream perception, thus synesthesia becomes evident: *With crunchy toppings and a velvety ice cream centre, this ice cream discovery redefines pleasure/ The perfect balance of cracking Magnum chocolate and velvety smooth vanilla ice cream/ Velvety vanilla ice cream and thick chocolate shards encased in a cracking milk chocolate shell/ Crispy wafer with the chocolate coating to prevent it going soft / Crisp golden waffle meets creamy ice cream, drizzled with luxurious caramel and chocolate sauce, creating a symphony of sweetness in every bite*). In customers’ reviews sound sensations look less significant and are mentioned not as often as flavor or texture (*Crunchy* bittersweet chocolate flakes round out this crisp, light flavor nicely / It comes in different varieties like cookies and cream (with CRUNCHY cookie bits), pralines and cream (fantastic!), etc.).*

Texture remains a very important criterion of ice cream. All customers’ reviews focus predominantly on ice cream taste and texture, thus gustatory and tactile modalities turn out essential in ice cream perception (*I love it, and it has great texture, and tastes Amazing*). *Creamy is the most desirable texture, so creaminess is stressed by both, manufacturers (A delightful blend of tart berries and sweet banana slices, nestled between layers of soft waffle and creamy ice cream, for a refreshing twist) and customers (This was very creamy and fresh...I will get it again.../ The ice cream was very creamy and goes well in a root beer float!!! / Creamy with good coffee flavor/ So creamy and delish with Hot peach pie! Very good*

*allow as well! / This ice cream is rich and creamy. The Vanilla Bean taste comes through to the last spoonful /... bowls of creamy vanilla ice cream sprinkled with yummy chocolatey chips, made with real milk and fresh cream/ Rich creaminess and delicious coffee flavor give everyone lots of reasons to linger over dessert / That said, I like this one bc it’s tasty and GOOOOOOD & CREAMY!!). The best expectation and tactile sensation of ice cream looks as “*It simply melts in your mouth!*” or “*It’s the perfect combination of salty, sharp, creamy, and sweet*”.*

The adjective *creamy* occurs most often in syntagmatic relations with *rich* (extra smooth rich creamy finish). Lack of creaminess is disappointing (*Sometimes I am disappointed when my ice cream is too icy instead of creamy / This one probably won’t be on my purchase list again. For some reason it had a bit of a fake flavor to it. Also not as creamy as it should be) as well as the abundance of it (*I like the level of creaminess of the ice cream because it leaves your mouth feeling cleaner than other ice creams that are too creamy / Too much cream. Not enough cookies). The antonyms to *creamy* in ice cream perception are *icy, glacial, watery*: “*an icy fruit shell / Several detected a slight aftertaste that they couldn’t put a finger on, and the consistency was described as “glacial and “icy” / Good strawberry flavor, but was a little too icy / there was strict delineation between “milky” ice blocks and “watery” ice blocks / They are good at the taste and don’t have ice crystals in it*.”**

Another adjective to describe ice cream texture is *smooth* and much rarely its derivative *smoothness* (extra smoothness): *It’s rich and smooth / It’s smooth, rich, and a pure delight from the first spoonful to the last / The ice cream is so0000 smooth. Its not overly sweet or flat, like some other brands are / REAL ice cream with limited ingredients. Smooth with just the right amount of vanilla! Yes! It as good as other high quality or premium organic ice cream / Spoil yourself, family, and friends with a moment of irresistibly smooth vanilla delight / The perfect balance of cracking Magnum chocolate and velvety smooth vanilla ice cream.*

Ice cream texture beyond expectation is frustrating: *And it doesn’t have the texture/consistency of the ice cream / However the texture and the film it left behind in my mouth was unpleasant. It was like an oily feeling - almost like vegetable oil. Other words used to criticize ice cream texture are *airy, foamy, overwhipped*: *The good news is that it doesn’t have a ton of air pumped in, making it denser than cheap ice creams / Our tasters thought this was overwhipped. “Too much air,” complained one. “Foamy,” said another / ...garbage texture of whipped toothpaste, full of air and contains artificial sweetener. This ice cream tastes like frozen chalk.**

Customers in AMAZON reviews give considerable amount of comments on ice cream texture, quite often negative. The adjectives *gritty* and *gummy* turn out the most frequent: *The texture isn’t very creamy. I would describe it as gummy / ...the texture a bit too soft and creamy for me, melting quickly on a cone (some people*

like that) but the color is odd / Not as creamy...Used on blueberry pie / It's totally *GRITTY*...like eating sand. I'm not exaggerating. It's as if the sugar isn't dissolved at all. I can't figure out what else would make it *gritty* textured / The texture is HORRIBLE! It literally taste like you are eating frozen sand. Why is it *gritty*? Why am I chewing ice cream? / but the worst part was the taste, extremely *gritty*, didn't really taste like ice cream / More texture woes doomed this brand, with some people calling out a "chalky," "gritty" consistency. These comments and many others reveal that tactile and gustatory sensations are often inseparable: Creamy and mango-ey / Flavor weak and now there is a granular texture / Didn't get much of a vanilla taste. Didn't like the colour or the texture.

Generally, vision is considered to be dominant in the hierarchy of the senses [30] but in ice cream perception visual dominance yields to other sensory modalities. Preferable ice cream colors are *cream-colored, golden, butter-yellow*. In customers' reviews visual impressions are emphasized quite rarely: *I thought this ice cream was going to be "white" when I opened it, but to my surprise it had that nice yellow tint*. Negative visual impressions are associated with disappointment and specified more often: *The flavor was weak and the color pale /... but the color is odd / On top of that, though, when I opened the carton, the ice cream was orange. Not cream-colored, not golden, but a seriously-bright ORANGE. For a moment, I thought Whole Foods had delivered orange sherbet by mistake. But, no, it's just flavorless ice cream tinted orange. Can't help wondering what that's about and why vanilla would require any color added at all*. Negative assessment of ice cream color goes hand in hand with gustatory and tactile sensations that proves synesthesia of sensory perception: *The flavor of the vanilla is good, the texture a bit too soft and creamy for me, melting quickly on a cone (some people like that) but the color is odd. It reminds me of the "marshmallow circus peanut" candies, a little too pastel orange to be a natural vanilla*

/ ... it has food coloring from a natural extract to make it look like "french vanilla" but they seem to have fixed the overly yellow/orange issue other people were talking about / In a sea of white, the daffodil hue made this sample stand out. Our panel agreed that it had a more custard-like or French vanilla energy than its more bean-forward brethren, with a few saying the yellow color was off-putting / that were the color of very pale peaches and a flavor a bit like apricots / The flavor of the vanilla is good, the texture a bit too soft and creamy for me, melting quickly on a cone (some people like that) but the color is odd. In advertising discourse the accent on ice cream colors (*mint green, strawberry red, macadamia metallic, frozen berry metallic, lime gold metallic*) was made in 2022 when Porsche and Chicago-based Pretty Cool Ice Cream collaborated to launch five unforgettable flavors to mark the National Ice Cream Day [32].

3. CONCLUSIONS

Frequency rate of taste words in the texts generated by ice cream manufacturers (a) and customers' reviews (b) reveal both coincidence and divergence in promotion and sensory perception of ice cream: **(a)** cream (101), chocolate (59), vanilla (40), crunchy (24), caramel (23), flavor (21), smooth (19), cracking (18), milk (16), dessert (16), delicious (15), strawberry (14), velvety (13), creamy (10), perfect (9), chocolatey (8), indulgent (8); **(b)** flavor (95), vanilla (96), chocolate (66), creamy (47), sweet (39), delicious (30), great (25), coffee (21), smooth (21), caramel (21), texture (20), rich (20), fruit (20), vegan (18), cone (17), favorite (17), strawberry (16), sugar (16), icy (16), perfect (15). Naturally, copywriters select more sophisticated vocabulary and exquisite syntactic patterns for refined advertising texts but sensory lexemes can reveal customers' flavor preferences and their dynamics as well as other sensory expectations and highlight target points in effective advertising strategies.

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СЕНСОРНЕ СПРИЙНЯТТЯ МОРОЗИВА (НА МАТЕРІАЛІ АНГЛІЙСЬКОЇ МОВИ)

Ольфакторна, смакова, тактильна модальності останнім часом перетворилися на перспективний об'єкт мультидисциплінарних досліджень. Вивчення цих сенсорних модальностей сприятиме виявленню мовних універсалій і лакун, аналізу синестезії в мовах світу та комунікації, створенню сенсорних глосаріїв. Способи вираження смакової модальності суттєво відрізняються у мовах світу залежно від наявних продуктів, особливостей походження інгредієнтів, дієти, культури споживання їжі. Сенсорне сприйняття морозива, найпопулярнішого у світі десерту, є цікавим об'єктом для компаративних, типологічних, когнітивних досліджень у лінгвістиці, для аналізу комбінаторності та частотності сенсорних лексем, мультисенсорності, з одного боку, ієрархії сенсорних почуттів, ступеню інтенсивності, градуальності сенсорних прикметників, з іншого боку. Це може сприяти виявленню більш ефективних підходів у рекламі морозива на підставі досвіду його сенсорного сприйняття та очікувань у різних лінгвокультурах. Порівняння сенсорних лексем з позитивним та негативним оцінним значенням дозволяє дослідити розбіжності у характеристиках морозива, які підкреслюють у рекламі виробники та оцінюють споживачі. Два параметри морозива — смак і текстура — виявляються найважливішими, оскільки є пріоритетними у рекламі, оглядах, коментарях. Візуальне сприйняття морозива поступається іншим модальностям. Звукові ефекти виявляються важливими для морозива у вафельному конусі. Ольфакторні характеристики виявляються неважливими. Для вивчення сенсорних модальностей у сприйнятті морозива використовувались рекаламні тексти, статті, матеріали сайтів виробників, коментарі споживачів. Сприйняття морозива є складним процесом, що відрізняється мультисенсорністю. "Смакові" лексеми з позитивним оцінним значенням — *scrumptious, indulgent, luscious, sweet, sugary, cloying* є найбільш частотними. Аудіо модальність виражається переважно за допомогою прикметників *crunchy, cracking, rarely crispy*, тактильна модальність — *creamy, smooth, icy, glacial, watery, gritty, gummy, foamy, airy*. Новими інтенсифікаторами опису смакових почуттів стали *deliciously, velvety*.

Ключові слова: морозиво, мультимодальність, сенсорна лінгвістика, сенсорна модальність, синестезія, смаковий, тактильний.

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