

DOI: <https://doi.org/10.18454/RULB.2022.29.1.32>**КОНЦЕПТУАЛИЗАЦИЯ ВКУСОВЫХ ОЩУЩЕНИЙ В КОНТЕКСТЕ КОГНИТИВНЫХ ИССЛЕДОВАНИЙ: ПОЛИМОДАЛЬНОСТЬ, ИНТЕРМОДАЛЬНОСТЬ (СИНЕСТЕЗИЯ)**

Научная статья

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Аннотация

В языке мир воспринимается по-своему, т.е. имеет определенный способ концептуализации и рассматриваются как когнитивные механизмы в основе сенсорного познания действительности. В статье анализируется процесс концептуализации вкусовых ощущений на основе анализа вкусовых компонентов с учетом метафорических и метонимических переносов. Язык как идеальный инструмент действительности, определяется посредством концептуализации, а наличие неразрывной связи между человеком (носителем когнитивного опыта) и способами вербализации способствует расширению лингвистических исследовательских подходов в языкознании. Исследовательская работа по лексической семантике посвящена анализу особенностей концептуализации вкуса и восприятия через фиксацию типа восприятия, поскольку информация о вкусовых особенностях воспринимается слуховым и зрительным, а также обонятельным, тактильным сенсорными каналами. Цель - выявление когнитивных оснований концептуализации и вербализации восприятия вкуса (феномены полиmodalности, интерmodalности (синестезии)). Объект - когнитивно-семантические механизмы и способы концептуализации фрагментов реальности, составляющие основу процесса вербализации вкусовых ощущений. Перспективой дальнейших исследований может стать изучение семантики групп со сходным, но не идентичным значением, обозначающих перцептивный модус вкуса, с целью выявления общих и дифференциальных признаков, а также анализ концептуализации вкусовых ощущений в других типах дискурса.

Ключевые слова: когнитивно-семантические механизмы, сенсорное познание, вербализация ощущений, концептуализация вкусовых ощущений, сенсорный канал, метафорические переносы, метонимические переносы.

CONCEPTUALISATION OF TASTE IN THE CONTEXT OF COGNITIVE RESEARCH: POLYMODALITY, INTERMODALITY, SYNAESTHESIA

Research article

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Abstract

A fundamental postulate in linguistic science is that language divides the world in its own way, i.e. it possesses a particular way of being conceptualized. Metaphorical and metonymic transpositions are the main forms of conceptualization, which are analyzed as cognitive mechanisms at the basis of the sensory cognition. The article deals with the taste senses conceptualization on the basis of analysis taste by means of which the object features are described with the account of metaphorical and metonymic transpositions. The language is an ideal instrument of organizing reality, it defines its concrete contours through conceptualization. Due to the existence of an inseparable connection between a person (the cognitive experience bearer) and the language verbalization, the traditional framework of linguistic research has been expanded. The presented research paper is a study of lexical semantics, implemented in the framework of the cognitive approach, and is devoted to the conceptualization analysis of taste sensations and gustatory perception. By describing the semantics, it is possible to have access to the conceptualization of gustatory sensations valuation in human consciousness. An important aspect in the taste conceptualization is the fixation of the perception type, since information about taste features is perceived audibly and visually, and can also come through olfactory, tactile sensory channels. The purpose is to reveal cognitive bases of taste sensations conceptualization and verbalization (phenomena of polymodality, intermodality (synaesthesia). Object of study - cognitive-semantic mechanisms and ways of reality fragments conceptualization, which form the gustatory sensations visualization process. The further research may include the study of semantics of similar groups, but not identical meaning, denoting perceptual taste modus in order to identify common and differential features, as well as analysis of mechanisms of taste sensation conceptualization in different discourse types.

Keywords: cognitive-semantic mechanism, sensory cognition, sensory verbalization, taste conceptualization, sensory channel, metaphorical transfer, metonymic transfer.

Introduction

In discussing the sensual cognition, David Hume concluded that the world is presented as a sensation: *"some sensations <...> coming from different senses <...> may be temporarily combined, but <...> we soon notice that they allow for separation and can be given separately"* [41, P. 306]. In general, according to the philosopher, all sensations evoked by the same object correctly reflect the world, since no single sensation in isolation reflects what the object in question actually represents. In other words, human cognitive activity does not proceed with reliance on only one isolated modality (monomodality) - on the

contrary, perception as a complex sensory reflection form is the association result, the interaction of polymodal and intramodal sensations [10], [22], [31], [32].

The synaesthesia phenomenon is actively studied in the context of various disciplines: linguistics, philosophy, psychology. Philosophers have made a significant contribution to understanding the interaction of the human perceptual system elements. As far back as in the ancient philosophy there was an opinion that sensation is capable of taking forms of sensually perceived objects without their matter. In his *“Experience on the Human Mind”* (1690), John Locke assumed that sounds, colours, tastes are within things and are the forces which cause us to experience various sensations. Considering the sense organs interrelation, the philosopher outlines the possible ways of interaction analysers, forming human sensations, and superimposing one over the other qualitatively different sense images.

Kant believed that cognition begins with sensations that are triggered by influences from the external environment and suggested the polymodal perception nature. *“Dirt seems to arouse disgust not so much because it is repugnant to the eyes and tongue as because one expects it to smell bad...”* [15].

The German Researcher G. Loze highlighted the similarities between the different sensations: *“In the series of vowels we see similarities with the range of colours, and colours for a different impressionable sensibility repeat the properties of tastes <...> the similarities noticed between different sensations are based not on the comparison of their direct contents, but on sensation”* [31, P. 98]. In the philosophical paradigm, the key concept in the synaesthesia definition is “sensation”, which is the starting point of cognition, through which the human connection with the surrounding world is realized.

Philosophical research lays the foundation for the synaesthesia study in the field of psychology, from which the concept later transferred to linguistics. Psychology sees synaesthesia as sensory impressions that cross the modalities boundaries, so one “hears” colours or “sees” sounds. In his analysis of sensation and perception, S. L. Rubinstein views synaesthesia as *“such an amalgamation of the qualities of different spheres of sensitivity, in which the qualities of one modality are transferred to another, heterogeneous one”* [33, P.152]. It follows from this definition that to understand the synaesthesia’s specificity as a psychological phenomenon, not only sensation, in its psychological sense, is important, but also the “modality” that characterizes the quality experienced by a person. It is considered that different sensations are different modalities kinds [18]. In ordinary perception, a person sees, hears, or tastes something at the same time. Synesthesia in a narrow sense leads to heteromodal sensations in which sounds receive a certain coloring and paints a certain sound [20].

According to the fair comment of A. A. Ponukalin, *“man is almost continuously immersed in the sensory field of all modalities”* [29, P. 211]. In the synaesthesia definition as a psychological phenomenon one can identify a common feature: the qualities transfer of one modality to another, to denote the specific (undivided) sensual-emotional sides of a person's perception of the world and the possible creative origins associated with them. R. O. Jakobson, A. P. Zhuravlev, O. Espersen, L. Taylor paid attention to psychological regularities of synaesthesia manifestation, its connection with linguistic and cultural self-identification of an individual.

The first mention of synaesthesia in Russian linguistics is found in the works of F. I. Buslaev. He regarded synaesthesia as a (verbal) mixture, of combination sensation different in nature. On the basis of this synaesthesia interpretation concept F. I. Buslaev asserted that *“sensation modality is never “pure”*. Experiencing of a certain category of sensation turns out to be more or less coloured by intermodal connections, such as: sound-colour, taste, sound-colour-tactile, etc. Thus, looking at velvet, we *“feel its softness; looking at a ripe apple, we “feel” its weight; in a crushed grape we “see” its moisture, in a lemon slice its sour taste”* [35, P. 32].

According to Lakoff, *“life is a continuous synesthetic experience”* in which the world is revealed through the five basic senses. He analysed the synaesthesia phenomenon and created the process model of synaesthetic experience generation that includes three levels: *physiological, aesthetic, synaesthetic*. The result is the important conclusion that *“synesthesia does not simply reflect a natural melding of one perceptual system with another, but can mediate and/or act as a symbolic/conceptual level of representation”* [52, P. 237]. Thus, a unified cognitive basis for the basic synaesthesia concept is asserted, and the realms of perceptual realization are separated. Thus, the verbal unity, visual, auditory and other sensual forms, accompanied by emotional images, is seen as the objective world reflection [46, P. 129].

In various scientific paradigms, the synaesthesia phenomenon is interpreted as: “intermodality of perception”, “inter-sensory communication”, “inter-sensory sensations”, “inter-modal translations”, “polyreceptor metaphor”, and “cross-modal transition”. Researchers of synaesthesia from a linguistic point of view limit the scope of this concept in different ways:

- *Synaesthesia in the narrow sense* (Ullmann 1957; Dombi 1971; Kapanova 1984; Kundik 1997) - interaction only of words related to sensory perception (sweet fragrance / sweet fragrance);
- *Synaesthesia in the broad sense* (Stern 1931; Kronasser 1952; Nikitin 1974; Searle 1990; Gak 1977; Voronin 1983) - involving also words denoting an emotion or any other concrete or abstract concept (*sweet love*).

We share the position of M. V. Nikitin, who interprets synesthesia as a special metaphor, which *“is a way of conceptualising and naming what is observed in the world being described, rather than what is marked and named above in the pragmatic relation of speakers to what is being described”* [27, C. 25]. Synaesthesia, in our view, is not simply a figurative expression, but an essential necessity of thought. Synaesthesia reveals its essence as a manifestation of non-verbal thinking, which finds its embodiment in metaphorical imagery, where comparisons, comparisons arise between multi-modal impressions. In fact, awareness of synaesthesia occurs thanks to language metaphorical system. The metaphorical system names non-spatial perceptions in the image of spatial ones and attributes to sounds and smells such qualities as light, colour, form, contours, structure and motion peculiar to spatial perception [37], [38].

In the research process, a similarity between synaesthesia and metaphor is revealed: at the heart of these phenomena lies an internal contradiction, a conflict. Synaesthesia combines lexemes indirectly related to objects, information about which one receives from different sense organs. By creating combinations with each other within the synesthetic formation, the lexemes are incongruent in relation to their original perceptual domain of correlation. The synesthesia basis is the connotative feature of the lexeme, which is transformed in the process of synesthetic reinterpretation into the defining feature of synesthesia. This

principle is a universal way of metaphor formation [49], [50], [51]. The psychological basis of any metaphor as a figurative allegory is an association (in the case of synaesthesia, an inter-sensory association).

The word “synaesthesia” designates both the process and result of inter-sensory relations (associations). The synesthesia peculiarity consists in double allegoric metaphor, i.e. meaning development is carried out here also with transition to another sensual sphere [45]. There is a synaesthetic transfer of the gustatory feature into the olfactory modality (*tasty smell of coffee*), which is accompanied by a synaesthetic transfer of the tactile feature into the auditory sphere (*soft sound*), resulting in a complex synaesthetic formation: it is not clear whether the delicious smell of coffee enhances the soft sound of terracotta walls or whether the successful colouring of the room sharpens the familiar scents. This phenomenon is a deep consciousness mechanism, operating on the representation of pre-object level to the subject and performing a natural content transformation and perceptual modality “material” (sight, hearing, smell, taste) into the other modality form (for example, touch) [42].

In the context of cognitive research, the understanding of the synaesthesia phenomenon is related to the reinterpreting mechanism of words in terms of what concept properties make it possible to use the names of one object to denote another. Using synaesthesia, one focuses attention on those components of the knowledge structure representation that meet the conditions similar to the metaphor. The synaesthetic process consists in the fact that one object “appropriates” the features peculiar to another object, which, in fact, is the main quality of metaphor [2, P. 361].

Methods

This research is based on the methodology of modern linguistic semantics and cognitive science, related to the conceptualization problems, verbalization methods, as well as the synaesthesia analysis (intermodality), metaphorical and metonymic transpositions. The theoretical research is based on the works of the following researchers:

- the conceptualisation and categorisation problems – Talmy 2000, 2007; Langacker 1988; Lakoff 2004; Boldyrev 2001, 2009; Demyankov 1994, 2007; Katsnelson 2001; Kubryakova 1999, 2004; Frumkina 1992, 2001; Pimenova 2001, etc;
- the cognitive semantics and semantic description of language units on the basis of hypothetic-deductive method and experimental techniques – Selivyorstova 1976; 1980; 1988; 2001; Suleymanova 1985; 2004; 2007; 2010; Stepanov 2005; Lyagushkina 2002; Belaichuk 2004; Sudakova 2006; Fomina 2010; Shabanova 2010; Trukhanovskaya 2011; etc;
- the lexical semantics – Apresyan 1979; Arutyunova 2001; Akhmanova 1990; Borisova 2014; Gak 1989; Karaulov 1987; Kuznetsova 1989; Mel'chuk 1974; Sobyana 1989; 1993; 2003; Shmel'ev 2003; etc].
- the conceptual metaphor, developed in the works of J. Lakoff and M. Johnson – Lakoff, Johnson 1980; Lakoff, Johnson 2004; 2008, etc.;
- the metaphor studies – Buhler 2000; Searle 2004; Saitovik 1993; Williams 1976; Apresyan 1995; Arutyunova 1999; Merzlyakova 2012; Teliya 1988; Chudinov 2001; Shmelyov 2006; Baranov 2015; etc;
- the metonymy field – Barcelona 2003; Dirven 2002; Croft 2006; Goossens 2002; Paducheva 2004; Suleimanova 2014; etc.;
- the synesthesia as the cognitive linguistics perspectives – Voronin 1983; Gak 1998; Galeev 1991; Nikitin 1983, 2003; Sabanadze 1987; Ullmann 1977 and others.

Results

Nowadays, in addition to synesthesia “sensory interpretations”, this phenomenon also includes transfers from sensory fields to emotional and evaluative meanings. Synaesthesia is considered as “*a complex multilevel <...> psychophysiolinguistic phenomenon, in which sensation of one sensory modality causes sensation of other modality, or – emotion*” [40]. It is difficult to disagree with this statement, as synesthetic formations such as *sweet horror*, *sweet poison* have an emotional colouring and often have a strong emotional component - a pleasant excitement and an appealing medium in a given context. The word combinations *sweet silence*, *bitter disappointment*, *sour remembrance*, *spicy humour* “are natural and correspond to some of our unconscious associations” [20].

To denote synaesthesia on the basis of sensory-emotional inter-sensory connection introduced the term “synaesthesia”, which was defined as psychophysiological universalia underlying the linguistic universalia, the scope of which is the sensory-emotional sphere (sensations → emotions) [12]. The researcher considers the phenomenon of synaesthesia as “co-senses” + “co-emotions”, “*various kinds of interactions between sensations of different modalities and sensations and emotions, which result in the transfer of sensation quality at the primary-signal level and the transfer of meaning at the secondary-signal level, including the transfer of meaning in a word*” [12]. As follows from the definition, the interaction between the sensory and emotional spheres is reflected in the sensation quality transfer, and the transfer is the result of such interaction.

Following Voronin and Sabanadze, and on the basis of empirical data analysis, we consider it necessary to include both feeling → feeling → emotion in the scope of the synaesthetic metaphor. The emotional component can be considered as an auxiliary element in the transfer chain feeling¹ → emotion + feeling², or as an independent element in the transfer feeling → emotion.

Synaesthetic transference models. In our study, three transfer models were analysed:

1. **sensation¹ → sensation²:** “*sweet aroma*”. A perception in one sensory modality produces a perception in another modality. This model represents synaesthetic transfer in the sensation characterisation framework (intensity, sharpness of an odour, taste, sound, colour intensity, etc.). Thus the transfer of “*sweet aroma*” remains in the sensation realm, the adjective “*sweet*” indicating a high intensity and positive appreciation of taste and fixing the same attribute of high intensity and positive appreciation for the modality “*smell*”.

2. **sensation¹ → emotion + sensation²:** “*sweet voice*”. Sensation of a sensory modality “*taste*” evokes sensation of another modality “*hearing*”. This model characterises the transfer within the sensation characteristic by adding a positive emotional component to the meaning “*pleasant sound*”. The emotional component gives the sensation a distinctive sensual connotation, called “an emotional background”.

3. **sensation** → **emotion**: “*sweet life*”. The sensation of the sensory modality of “taste” evokes an emotion. The combination *sweet life* goes beyond sensation; the adjective “*sweet*” indicates a positive emotion “*pleasant, joyful, happy life*”. A synesthesia in the narrow sense, involving the emotion sphere, can be seen as a transitional case from sensory synesthesia to synesthesia, which already involves nouns “*life*”; “*love*” that are not part of the lexico-semantic field of sensory perception.

Thus, through the synaesthesia, a polymodal image is formed in human perception, based on inter-sensory intersections and affecting emotions. The distinction of transpositions between those models depends on the semantics of the noun.

- *model 1 (feeling¹ → feeling²);*
- *model 2 (feeling¹ → emotion + feeling²)*

Nouns with a predominant significant component denoting abstract concepts and related to sensory perception of a physical nature (colour, smell, light, taste) are used in *model 1: feeling¹ → feeling² (delicious smell)*.

Nouns with a predominant denotative component related to human life (*glance, moan, smile*) are used in *model 2: sensation¹ → emotion + sensation² (sweet notes, soft glance, icy smile)*. Most transpositions that remain in the realm of feeling tend to rely on the intensity seme (*huge sound; pungent aroma*). As a rule, transpositions that take place from the realm of sensation to the realm of emotion actualise the seme of emotional evaluation and affect the seme of hedonistic evaluation (*bitter humour*).

A change in the adjectives denoting perceptual perception when they are combined with psychological experiences, emotions and feelings can be qualified as “*secondary synaesthesia*”. By secondary synaesthesia we mean expressions containing a transfer from a sensory experience to an emotion experienced by a person (sensation → emotion). There is a valuation component underlying the emotional state characteristics using the gustatory secondary synaesthesia metaphor (*sweet life, sweet love, sweet dreams, bitter cup, bitter shame, bitter anger, tart humour of fate, tart peace*). The taste designation is one of the means of expressing the author’s assessments or evaluations (*pleasant/unpleasant*).

The analysis of adjective combinations having a taste component with emotion nominations indicates that they differ in:

- semantic concordance (*sweet joy, bitter resentment, bitter suffering, sour mistrust*);
- semantic discord (*sweet sadness, tart sadness, tart oblivion, sour expression, sour smile*);
- semantic discord (*sweet poison, sweet maelstrom, bitter sweetness, bitter truth, sour hope*).

Semantic concordance and semantic mismatch [9] in composite nominations are used to represent both new semantic variants and new meanings. Semantic concordance differentiates the degree, depth, acuteness of the experience: *sweet life (life without problems and worries)* and *bitter defeat (crushing defeat)*.

For instance, the semantic alignment enables to show the depth of the heroine’s experience: *She turns her face even more away, fearing her sweet fate*. The synaesthetic alignment in the combination *sweet/bitter fate* allows us to identify the specifics of the Russian identity: *He considered himself a Russian and tried to find the highest meaning in the bitter fate of his people*. The semantic discord is used to form the names of a complex emotional experience: *tart sadness (despondency)*. Akhmatova’s poem uses synaesthetic divergence to enhance psychological tension and passion: *I have made him drunk with tart sorrow*. The particular acuteness of the feeling, *tart sorrow*, conveys the mood as a whole - the heroine torment. The *sorrow* is likened to the *tart taste of wine* that gives no pleasure / peace. This dramatic perception of *dreary despair, the experience of parting with a loved one*, is associated with the *tartness of wine (a sharp taste)* due to the synaesthetic transfer from the taste sensorium sphere (tart) to the emotion sphere (sadness). The intersection of psycho-emotional sensations is revealed in the associative gustatory likening of sadness, which evokes a “gastronomic” counterpart in the memory. The semantic inconsistency emphasises the emotions’ nuances/shades experienced: *a sweet maelstrom (a passion that beckons and ruins at the same time)*.

Example, the emotion “sweet” is assigned to the inanimate object poison and becomes its second name (an attachment feeling: *fraught with danger*): *the scene is a sweet poison, who once tasted it, will seek to taste it again*. As the metaphorical thinking product, the synaesthetic image is a kind of “similarity transfer”, but it is not based on comparison but rather on contrasting the dissimilar, the incompatible, so the further apart the object categories are, the brighter the metaphorical surprise of their contact, **example**: *Art has to eat nothing but the sweet poison of mental and bodily disorder*.

Synaesthetic experiences essential for every human being, but they are far from always realised and, therefore, uncontrollable: there are gloomy images of events that are hard for us to experience. They may be associated with an unpleasant taste: *I could not unravel the meaning of these dreams then - only recognise the tart taste of longing and haplessness and wake up with this joyless feeling*. There were often feelings of confusion, discomfort, dissatisfaction with oneself, empathy: *He saw a certain tart fate humour in sitting behind the wheel of a comfortable car and nevertheless experiencing all the feelings of his character walking through puddles in the autumn wind in drenched clothes and leaky boots* [34]. Negative emotions are replaced by bright, light and tender feelings associated with a dear and joyful moment in life, the memory of childhood: *Happiness presented just when the memory of childhood comes alive with sweet sadness*. In most cases, a synaesthetic transfer is carried out from the sense of taste (sweet) to the positive emotion experienced by a person (association of happiness with a deserved and long-awaited rest): *Happiness is the end of the road, a sweet repose, a blessed rest*.

Discussion

The modality is understood as “*a way of accepting and processing information that regulates action and activity*” [7]. Perceptual modality is based on “*a combination of sensory modalities dominated by one or more of them and creates an image of an object or phenomenon denoted verbally*” [8, C. 22]. Under polymodality the perceptual image is constructed on the basis of different modalities combination, acquiring a high adequacy degree. The polymodal sensation field includes interactions between sensations belonging to the same perceptual channel under consideration, the visual channel (shape, colour, design, size perception) [25], [39], [42], [44].

Example: *a large green cylindrical cup with a curved handle*.

The sign, which objectively exists in reality, is perceived through various sensory channels like *olfactory*, *gustatory*, *tactile*, *auditory*, *visual*. The process in the perceptual modalities is perceived as an external world awareness, the inner world “*here and now*”. The present moment awareness takes place in the existing situation: “*now I see*”, “*in this moment I hear*”, “*here and now I feel*”, “*in the present I am*” [17]. The polymodal perception activation field depends on the lived moment awareness, on the perception modality actualisation [1], [2], [6], [9].

Perception verbs may serve as markers: *feel*, *taste*, *feel*, *see*. In the following examples, the verbs serve as the feeling indicators modality [33]:

- *one could not take one's eye off a fresh tasty hunchback / instantly a fresh tasty hunchback melted in one's mouth;*
- *as one hears the sweet smell of baked curd / inhaled the sweet smell of baked curd;*
- *one hears a sour spirit far away / one smells a sour spirit;*
- *one feels the sweet smell of pear at the brush / a smell so sweet that one's drools flowed;*
- *I could not take my eyes off the delicious and smart pretzel / the delicious and smart pretzel seemed to be happy and breathing;*
- *I saw this sweet icy treat / I tasted this sweet icy treat with my tongue;*
- *we still felt the thick and sour taste of yesterday's kvass in my mouth / it looked sour and thick;*
- *sour steam hisses / sour steam erupts.*

In addition, a common means of indicating perceptual modality is the tactile verb group, such as *touch*, *tickle*, *crumple*:

- *the sweet and heavy smell of fresh bread tickled the nostrils / to inhale the sweet and heavy smell of fresh bread;*
- *the nostrils were tickled by the aromatic taste of coffee / reverently inhaled the aromatic taste of coffee;*
- *to see sweet and sticky honey / to touch sweet and sticky honey;*
- *even felt this sour juicy cranberry in my mouth / mashed this sour juicy cranberry;*
- *stirred sour and liquid in a leather pot / tasted sour and liquid.*

The perception modality is also indicated by the olfactory verb group, *to sniff*, *to pull in*: *pulled in a thick and tasty smell / felt a thick and tasty smell.*

These verbs can carry information about the tactile interaction features. The mouth, tongue, cheek and other receptors can act as sensory conduits for tactile sensations, so for example:

- *instantly melted in the mouth with a fresh delicious hunchback;*
- *tasted this sweet icy treat with the tongue;*
- *smelled that sweet smell of pear on the cheek;*
- *almost painfully, grasped with open mouth the living, welcome, delicious air;*
- *licked the sweet needling coldness.*

In some contexts, there is an “*inventing*” mode, as the verb does not carry information about the nature of the sensation interaction:

- *smell sour;*
- *feel the spicy aroma of herbs;*
- *feel the thick and tasty smell.*

The taste perception may also be carried out through the visual channel, which is indicated by visual perception verbs:

- *one could not take one's eyes away from a fresh tasty hump;*
- *to look sour and thick;*
- *sweet and sticky honey;*
- *sweet icy treat;*
- *sour steam flashed;*
- *sweet taste was coloured pale yellow.*

Verbs may indicate the auditory taste perception channel:

- *a faraway sour smell;*
- *hear the sweet smell of baked curd;*
- *hear the fresh juicy aroma of watermelon.*

The taste perception can be olfactory, and olfactory verbs are used:

- *breathed in the sweet and heavy smell of fresh bread;*
- *floated such a sweet smell that drools flowed;*
- *wafted the warm delicious aroma of freshly baked rolls;*
- *inhaled the tart and intoxicating smell;*
- *came the delicious smell of fried fish;*
- *smelled the tart, rancid smell of burning;*
- *wafted the sweet smell of boiled raspberries.*

The actualisation of the perceptual modalities is connected with the surrounding awareness and man's inner world:

- the verbalisation of visual-taste perception: *the eye could not take away from the delicious and ornate pretzel;*
- auditory-taste perception: *hear the sweet smell of baked curd;*
- auditory-taste-touch perception: *and I smelled, as if the sea murmured and the sweet rustling of the protected grove...* [16, P. 25].

There is a conscious allocation of structural components in sensory-perceptual experience (in our context, tactile-olfactory-taste perceptual experience: *nostrils tickled by aromatic taste of coffee*), mental actions are made as a result of which the perception modalities become important in the present time situation, i.e. actual.

If the perceptual image is constructed on a polymodal basis, the leading modality in it is usually distinguished, and “*the corresponding receptor system in this system is sensitive to the action*” [13, P. 83]. In order to describe a certain gustatory feature, the speaker resorts to the choice of the “leading” modality:

- tactile: *mashed this sour juicy cranberry*;
- olfactory: *inhaled the sweet smell of baked curd*;
- auditory: *a sweet and sharp smell is heard far away*;
- visual: *the eye could not be taken away from the delicious and ornate pretzel*.

Polymodality is characterised by the fact that “*one and the same attribute objectively, rather than metaphorically, refers to several sensations*” [11, P. 27]. The taste and smell perception can be polymodal: *spicy taste/smell*; *spicy taste/smell*. Since data from different modalities are used in the process of creating a perceptual image, the connection between the modalities may be of a different nature as well [24], [27], [30], [48]:

- *parallel* (touch and sight);
- *intermodal* (touch, taste).

Example. “*the sharp, pungent taste*” causes tactile, gustatory and painful sensations at the same time. Thus, information about the same feature (taste) of an object can come simultaneously through several sensory channels and be fixed as several sensation complex: taste, olfactory, tactile sensations: *he sucked in the sweet thick heat, prolonging the bliss of the first morning sip* [30, P. 34]. In this context, information about “the drink taste” is obtained through the olfactory and tactile perception channels. Information about “taste” can come simultaneously through the visual (*puffy, huge*) and tactile (*bristling with nuts*) sensory channels: *the cake bristles with nuts - puffy, huge, delicious* [21], [23]. The differences in conceptualization and interpretation of the perceptual information received from the senses arising from the actualization of transference types. Thus, in the complex perceptual object, the taste perception feature occurs due to the “layering” of olfactory and auditory sensations: *one forgets days, but as soon as one hears the smell of baked curd, one knows: Saturday is today* [36, P. 203].

It seems that the “*sensation layering*” is a characteristic feature of intermodality (synaesthesia) analysing the “*layering of sensory perceptions upon each other*” [40].

Sense impressions and synaesthesia is considered as a perception phenomenon where qualities of one modality are transferred to another, i.e. a “layering” of sense impressions occurs (*physiological syncretism*).

In intermodality one modality feature is subjectively transferred to another modality or sphere within which it does not objectively exist, compare:

- *bitter coffee vs bitter smell vs bitter kiss*;
- *tart wine vs tart aroma of rowan berries vs tart humour*;
- *sweet syrup vs sweet aroma of apple jam vs sweet sleep*.

Intermodal sensations include interactions between sensations belonging to different perceptual channels (taste and smell, taste and emotion).

Example: a tangerine can be described in terms of different modalities:

- visual (*orange colour, round and bubbly*);
- tactile (*cold, knobby and rough to the touch*);
- taste (*sweet and sour*);
- olfactory (*a scent of fresh citrus fruit*).

Hence, intermodality is the ambivalent interaction of different modalities in the perception act; co-sensation, synaesthesia. The real sensation complex when perceiving an object (*tangerine in our example*) within several modalities (*gustatory, visual, tactile, olfactory*) makes it possible to make a transition from one modality to another in the description process. In some cases, the object feature can be perceived within another modality not objectively (on the basis of proximity) but only in the individual's consciousness as a figurative comparison, and this phenomenon is scientifically described as intermodality or synaesthesia [12], [19].

Neurophysiologist A. R. Luria noted that “man is not limited to direct impressions of the environment; he finds himself able to go beyond sense experience, to penetrate deeper into the essence of things than is given by direct perception” [54, P.11]. A. R. Luria calls synesthesia an intermodal phenomenon, that is, the transfer qualities of one modality to another.

Soviet psychologist B. G. Ananyev views synesthesia as “a complex polysensory fusion formation of intermodal images and mixed communication channels (for example, colour hearing, skin vision, odor taste, etc.)” [1, P. 56]. During the intermodal process (synaesthesia), qualities of one modality are transferred to another, there is a possibility to distinguish the primary sensation against which other sensations are considered.

Example: *The sound of her voice is sweet*. Here, the characteristic of the sound is related to the characteristic that belongs to the taste modality “*sweet*”. It is well known that the voice has *sound characteristics: timbre, range, strength, pitch* and does not have the *taste characteristics: bitter, astringent, tart*, etc. The intermodal or synaesthetic transfer in this example is a figurative association through which the sound effects on the taste buds are described. As a result, the sound sensation is likened to the taste sensation.

Example: *the sticky taste of beer* - the gustatory sensations are identified with the tactile sensations of stickiness, viscosity. Thus, the synesthetic sensation correlation is based on polymodal representations, namely the holistic perception in the external world. Nevertheless, a feature of the intermodal process is the sensory characteristic transfer of an object to another domain based on imaginative associations. However, a given sensory characteristic (for example, taste or smell) is not a complex component sensory image of the perceived object:

Example: *tart taste, sticky taste, soft sound, hard voice, viscous sound, spicy aroma, viscous smell from burdocks, harsh light*. Combination of multimodal sensations contributes to the holistic formation objects, which entails emergence of inter-sensory perceptions. Such polymodal representations condition synesthetic sensation correlation and lead to integral formation perception of external world objects, unity perception [3], [28].

The joint coordinated action of the senses becomes the natural basis for the synergetic processes, and the psychophysiological mechanisms of different modalities correlation (*taste, smell, touch, hearing, and sight*) constitute the deepest base of any language. So, A.A. Potebnya in work "Thought and language" has accented attention that "... in all people more or less there is a propensity to find in common between impressions of various feelings. Language is a very convincing proof of the existence of such a universal tendency. <...> In Slavic languages, as in many others, a convergence of sight perception, touch and taste, sight and hearing, is quite common. We speak of burning tastes, sharp sounds" [31, P. 24].

In language, the synaesthesia phenomenon manifests itself in the fact that a word whose meaning is associated with one sense organ is used with a meaning relating to another sense organ, i.e. there is a transition: **example**: from touch to taste perception (*hot sauce*); from taste perception to olfactory perception (*sour smell*).

Researchers note that "*the history of the senses makes it clear that all the major ones come from the same source - in the beginning there was only one modality and one diffuse sensory experience. All sensations originated and developed from this one source. ...It suffices to turn to just a few examples to see that our speech does not suggest a gap between sensations of different modalities*" [5, P. 94].

Conclusion

We believe that a significant number of metaphorical transfers from the sphere of taste to the sphere of emotion and psychic modality correspond to the modern understanding of the determining role of emotion in the processes of sensory perception and cognition in general. Taste sensations are the basis of many psycho-emotional characteristics: *sugary sentimentality; sweet deception, sweet hope; our bitter, tart, bawdy life; tart peace*. Modern media, for instance, often resorts to metaphorical transfers from the taste sphere of sensorium to the sphere of emotion: *The New York Times writes that the "sour relations" between Moscow and Ankara have reached a maximum level of tension*.

Adjectives denoting gustatory sensations can evoke certain emotions, i.e. have a certain effect. Bitter emotions are caused by: *bitter truth, share, resentment, bitter recriminations*, because bitter taste is associated with dissatisfaction, with a negative perception of reality and generates a desire for change. *We all live in one country, under the same laws, so the bitter cup of decline of the Russian countryside did not pass over*.

All synaesthetic combinations with the adjective sweet in the media express a negative subjective-evaluative modality (*false, deceptive*):

Sweet context creates a soft unobtrusive semantic accompaniment for the most key ideas of this candidate's campaign (sweet context - deceitful context).

The political kitchen smells of those familiar electoral "sweet promises" (sweet promises - deceptive, unrealizable promises). As a rule, with the help of synaesthesia there is an influx of negative emotions in the sphere of publicity: *a bitter defeat with a pleasant aftertaste, a sweet pill of bitter defeat, leaves a bitter residue, turns the face into a "sour face", a spicy smell of creole politics, a spicy humour*.

Thus, in contemporary media, the function of secondary synesthetic metaphor is to form a subjective and evaluative modality. "*The skilful selection of facts, accentuating only one side of the phenomenon (necessary for the author) and obscuring the other, and sometimes the silence helps to paint the image of the event in black or rosy colours; implicit evaluations in journalism are primarily evaluative metaphors designed to organize public opinion and create a bright, visible image desired by the addressee, also suggestively influencing the perception of information under a given angle of view*" [21]. The advantage of covert evaluation is that with the help of a veiled influence mechanism the author unobtrusively suggests given ideas or conclusions to the addressee, thus manipulating them. The most common type of manipulative influence is considered to be implicit evaluation, which is inherent in the semantics, most often metaphor.

Secondary synaesthetic metaphor contributes to the expressive means of poetic speech, serving as "*the primary means of overcoming the speech automatism*". Here too, context plays an important role, contributing to the desired nuance of meaning selection (in this context, the expectation of peace of mind): *Under the birch canopy the stuffiness subsided, a welcome tart calm settled around, and the spiritual gloom vanished at once, like some play of the imagination* [43, P. 11].

Synaesthesia is a way of overcoming linguistic clichés and one of the ways of transforming general linguistic semantics; it always creates an unexpected image. In the following example, this unexpected image is a *sweet rush*, which the actress associates with obsession, ostentatious flattery, vain vanity: *And when the sweet smiling rush of handshakes and kisses is still in full swing, I already change my face and want only one thing - to disappear as soon as possible and immediately do something, do something, do something...* [14]. In the association process, similar qualities of different modalities are not sensed sensorial, but there is a subjective expressive personal impression of similarity with simultaneous perception of sensory differences in these modalities.

Thus, synesthesia is a systemic mechanism, which is based on the process of emotional generalization that manifests itself on the semantic level in the commonality of emotion-evaluation properties of objects of different modalities. It provides connection between feelings of different modalities, allows to perceive objects of different modalities invariantly and to reconstruct a complete image on the basis of perception of one modality. As a result, the perception of an object of one modality is endowed with emotional, semantic and symbolic load, which is transferred to an object of another modality in the process of perception. Commonness of estimation becomes a mediator of connections at unconscious assimilation of objects of different modalities with participation of both psychophysiological and linguistic mechanisms of synaesthesia and language metaphor.

Конфликт интересов

Не указан.

Conflict of Interest

None declared.

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