LIGHT – DARK, а также выявления коррелятивных оппозиций в сознании говорящих. В статье рассмотрен вопрос об универсальности данного противопоставления, а также различные стратегии номинации *светлого* и *темного*. Проанализировано соотношение оппозиции LIGHT – DARK со зрительным восприятием и ментальными характеристиками по результатам ассоциативных экспериментов. Взаимодействие этих компонентов в языковой концептуализации приводит к возникновению сложной оппозиционной метафоры: с одной стороны, это СВЕТ – ЗРЕНИЕ – ЗНАНИЕ, а с другой им противопоставлены ТБМА – ОТСУТСТВИЕ ЗРЕНИЯ (ВИДЕНИЯ) – НЕЗНАНИЕ, НЕОПРЕДЕЛЕННОСТЬ. Выявлены связи противопоставления LIGHT – DARK в системе бинарных оппозиций, в частности с такими противопоставлениями, как *день – ночь; солнце – месяц; белый – черный; небо – земля, счастье – несчастья, жизнь – смерть* и некоторыми другими. Проанализированы реакции, выражающие оценку и эмоции, связанные с этой оппозицией в сознании говорящих. Установлено, что взаимодействие когнитивного механизма противопоставления и концептуальной метафоры, когда, с одной стороны, в метафорическом обмене участвуют положительно, а с другой - негативно маркированные члены различных бинарных оппозиций, создает основу для формирования сложной системы метафор, которые можно назвать оппозиционными.

**Ключевые слова**: бинарная оппозиция, ассоциативный эксперимент, когнитивный механизм, концептуальная метафора, универсальность.

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Valentyna Marchenko

## SPEECH-AND-MUSIC WORK AS A MULTIMODAL TEXT: PATTERNS OF SPEECH AND MUSIC COMPLEMENTARITY

The article deals with speech-and-music work as a multimodal text created by the synthesis of speech and music, which is integrated and processed by the mind of the recipient in a single universal-subject code of thinking, for the implementation of a communicative-aesthetic or entertainment function that has self-sufficient artistic value and is broadcast to the listener in conditions of live communication or with the help of technical means. In the article, the generation, actualization and perception of speech-and-music work is considered as a synergetic mechanism consisting in the integration of the verbal and musical cultures of the author under the influence of his psychic energy excited by the extra-linguistic factors, and the oral rendering of speech-and-music work takes place through the interaction of phonetic, lexical and syntactic means of language and music components. At the same time self-development of communicative-cognitive and speechthinking processes in the spheres of the sender's spiritual being during the generation of speech-and-music work and in the receiver's one in the process of its perception is considered as such, in the course of which the key influence of the parameters of order, namely speech and musical culture, is exercised. On the basis of the data obtained during the theoretical and experimental-phonetic processing of the proposed invariant model, variant models of the generation, updating and perception of speech and music as multimodal text were developed: a model of balanced interaction of text and music, the model of speech dominance, the model of music dominance, and the model of reverse interaction between verbal and melodic components. Thus, in the work the most recurrent variant model of the parity interaction of text and music is presented and analyzed, and on the example of the song "Memory" from E. L. Webber's musical "Cats" the mechanisms of generation, actualization and perception of the speech-and-music works of this type are revealed. The expediency of studying the interaction of speech and music on the example of multimodal texts, which, besides the verbal and melodic component, also have iconic features, such as musicals, video clips, TV ads, etc., is promising and will allow us to deepen the knowledge about the interrelation of speech and music.

**Key words:** intonation, multimodal text, music, speech, speech-and-music communication, speech-and-music work, synergetic model.

**Introduction.** Speech-music relations is an enormously broad area of research involving a wide range of scholars: philosophers (Plato, Aristotle), linguists (D. Bolinger, R. Jacobson), musicologists (T. Adorno, L. Bernstein), neurolinguists (N. D. Cook, A. D. Patel), neurologists (S. Koelsch, J. Sloboda), etc.

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Explored from various perspectives, speech and music alliance proves to be most favourably manifested in speech-and-music works which we define as a product of speech-and-music communication, a complex integrated means of communication created through the synthesis of speech and music for the implementation of a communicative-aesthetic or entertainment function that has self-sufficient artistic value and is broadcast to the listener in conditions of live communication or with the help of technical means.

The study of speech-and-music works definitely falls within the field of multimodality [11, p. 189], since it involves the complex interweaving of word, image, gesture and movement, and sound, including speech, combined in different ways and presented through a range of media [1]. Moreover, the act of listening to a speech-and-music work is considered a deep, rich multimodal experience [12, p. 14].

The ideas presented above and also the ultimate problem of understanding how exactly language and music interact within a song animated an experimental phonetic research during which we compared components of speech and music and their integrated functioning within a song. Thus, the **objective** of this paper is to investigate a song as a multimodal text and identify the patterns of speech and music complementarity within it.

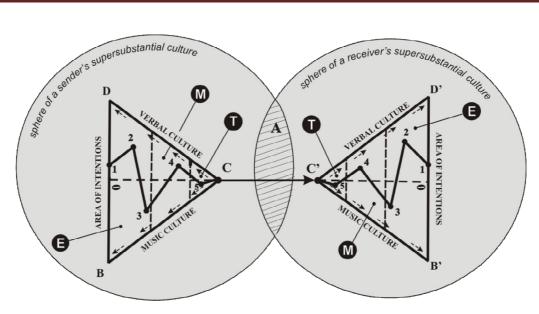
**Speech-and-music work as a multimodal text: a brief overview.** The meaning and pragmatic potential of the speech-and-music works are developed by the interaction of heterogeneous semiotic systems which in their turn are united and processed by a recipient into a certain coherent entity. Most scholars argue that within this entity the music component always dominates over the verbal one: words are merely the means of melody vocalization [10, p. 19-54]. Others claim that the verbal component helps to make melody less semantically ambiguous [6, p. 48], since as compared to a musical one it is more informative: a recipient becomes aware not only of intensity and modality of the expressed emotions but also of reasons, background and details of the situation described in a song.

Multimodal, or polycode texts, are of great interest since inherently different information – verbal, sound and iconic – integrates and is further processed by individual's consciousness into one universal subject code of thinking / mind code [9, p. 4]. Moreover while being perceived a multimodal text undergoes double or even triple decoding, i.e. having retrieved the visual and audio concepts an individual's mind lays them over the verbal concept –these concepts overlap thus generating the overall pattern of a multimodal text.

It lines up with the interpretation of a song as a special meaningful space created by the intermingled codes, such as paraverbal (extralinguistic factors; performance conditioned by a performer's certain mental / psychological state), musical (specificity of music form, structure, rendering), verbal (on the level of lexis and syntax), and emotive codes (expression of emotions) [8, p. 142]. It can be argued that the combination of meanings stemming from these three semiotic resources (lyrics, music, image) results in a new blended discourse space [2; 3] in the song which is more communicatively effective than other type of monomodal discourses.

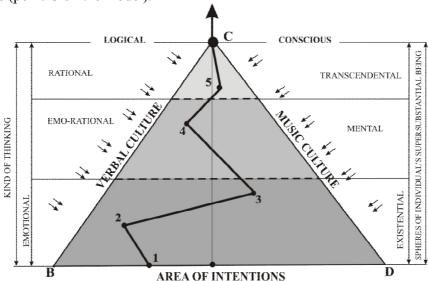
**Methods and methodology of research.** Perceiving speech-and-music work as a multimodal text enabled us to analyze its generation and perception by analogy with verbal communication, since its actualization is one of the real acts of communication. Thus, it can be described as the set of such operations as the generation of a message  $\rightarrow$  its encoding  $\rightarrow$  transmitting  $\rightarrow$  receiving and decoding.

Bearing the said in mind and also believing that singing much as speaking is a purely synergetic process [7, p. 55], we developed a synergetic model of speech-music communication (Fig.1). As the methodological basis for the formation of this model we used the idea of sender's and receiver's speech-and-music cultures overlapping as a compulsory requirement for communication. Since verbal and music cultures are separate components of an individual's spiritual world, we used the image of the overlapping of two spheres – sender's and receiver's supersubstantial cultures [4, p. 15], which makes communication possible.



**Fig. 1.** Synergetic model of speech-music communication

Within each of the aforementioned spheres, the triangles depict the overlapping of synergetic models of both sender's and receiver's supersubstantial being [5, p. 234-241]. Inside the supersubstantial being pyramid (Fig. 2) we can see a system of individual's supersubstantial being, which includes the existential, mental and transcendental subsystems whose functioning is controlled by the consciousness (point C on the model).



**Fig. 2.** Model of synergetic process of speech-and-music work generation and actualisation in sender's supersubstantial sphere

The shell of the system is formed by the sender's verbal culture, musical culture and the area of sender's intentions. Within the system the self-development of the synergistic mechanism of speech-and-music work's generation and actualization takes place, which is reflected in the model in the form of the attractor structure 1-C. The inclination of the attractor either to the area of verbal culture or and music one determines the pattern of speech-music interaction within a song. Thus, we can distinguish between (1) balanced pattern of speech-music interaction, (2) the prevalence of speech and (3) the prevalence of music.

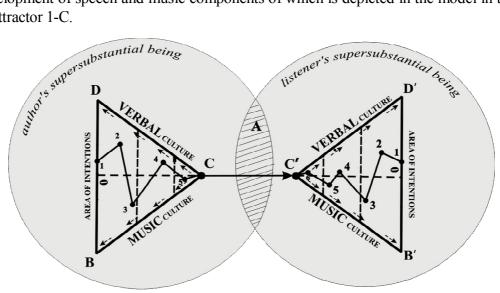
The developed models were substantiated by an experimental phonetic research, in the course of which (1) informants sampled the suggested songs according to three patterns; (2) the songs underwent phonetic (auditive and acoustic) and lexical analysis to reveal the consonance and dissonance of speech-

music interaction within each song; (3) the synergetic model of speech-music communication was applied to each song.

**Results and Discussion.** The cognitive interpretation of the results of experimental phonetic study of songs confirms the existence in the four variant models of speech-music communication, which can be characterized by the balanced speech-music interaction, the prevalence of either speech or music and their reversal decoding.

The results of the empirical verification revealed the highest recurrence of speech-music communication according to the model of balanced speech-music interaction. A typical picture of such a model is presented in the work as two attractor structures of self-development of communicative-cognitive and speech-thinking processes occurring in sender's and recipient's minds during their speech-music communication (Fig. 3).

A synergetic self-development of speech-music communication, which takes place in accordance with the model (Fig. 3), can be illustrated by a well-known song "Memory" from Andrew Lloyd Weber's Cats the musical. The analyzed song, which is the culmination of the entire musical, is performed by an unhappy, worn-down-by-life cat Grisabella, who, however, once was a graceful and glamorous one. Looking back at her luxurious past with nostalgia, she still believes in the bright future and expresses her resolve to start a new life. Such a combination of negative and positive emotions, optimism and pessimism in Grisabella's thoughts is reflected in the prosodic pattern of the song, the synergetic development of speech and music components of which is depicted in the model in the form of a structure attractor 1-C.



**Figure 3.** A synergetic model of balanced speech-music interaction (illustrated by a song "Memory" from Cats the musical)

The impetus to create the lyrics for "Memory" was given by T.-S. Eliot's poem "Rhapsody on a Windy Night". It made the author think about the problem of person's connection with their past, with the memory that forms the personality. The emotions that arose as a result of this resulted in the emergence of chaos (point 1) in the sphere of his existential being. It is obvious that the author's mind output from the chaos of the first bifurcation point resulted in the desire to emphasize on the problem of loneliness, which the author implements with the help of such lexical units as *midnight, memory, all alone, to moan* and the corresponding prosodic pattern: moderate tempo with a tendency to slowdown, moderate loudness, legato-like rhythm, gradually decreasing stepping scale, variety of falling terminal tones, long pauses at the junction of intonation groups, average intensity and narrowed pitch range. However, despite the song's melancholy mood, its timbre is perceived as light. This is primarily due to the fact that along with the mentioned lexical units, the author uses of the words of contrasting connotation, for example, *smile, beautiful, happiness*. The interaction of these language means is realized in combination with musical accompaniment in the D-flat major key, which is usually qualified

as both light and sad simultaneously. As a result of the exit of the author's psyche from the point (1) of its existential chaos, a partial attractor (1-2) emerges, the deviation of the end point (2) of which to the verbal culture indicates the selection of appropriate verbal means of expressing his emotions.

At the second bifurcation point (2) in the depths of emotional chaos, the next partial attractor (2-3) is conceived, the final point of which (3) approaches the music culture to the greatest possible extent. This may indicate that the used verbal means do not allow the author to express his feelings to the fullest. In order to strengthen his intentions, he switches from the D-flat major key to the parallel B-flat-minor key. Obviously, such a switch is fully consistent with the intentions of the author, since the combination of D-flat major and B-flat minor within one song usually conveys both pain and pleasure, confusion of emotions, when a person cannot laugh, but smiles, does not cry but is upset at the same time. The emergence of such a contrast of keys, combined with the use vocabulary with negative connotation (fatalistic warning, burnt out ends, stale, cold) contributes to the rise of the emotional-and-pragmatic potential of the song and has an extremely powerful suggestive potential.

After the third bifurcation point (the output of the system from chaos), self-development of the system based on the emotional-and-rational type of thinking continues in the mental sphere of the author's spiritual being. Due to the predominance of rational thinking energy, the partial attractor (3-4), compensating for the effects of emotions, slightly deviates towards the choice of appropriate verbal means. The deviation of a partial attractor (4-5) towards music culture may well indicate that as a result of chaos, the composer's transcendental thinking prompted him to turn to musical instruments to fully communicate his intention. Thus, the last verse of this song, which conveys hope for the bright future (Look, a new day has begun), is performed with the increased loudness, increased fundamental frequency together with the extended pitch range and intensity, accompanied by an orchestral part of wind instruments and string musical instruments.

After the last bifurcation point (5), the self-development of song generation process finishes in the sender's psychic system and its results materialize in the sound form (vector C-C ') under the control of logical thinking (point C).

The general picture of self-development of the cognitive process of perceiving and decoding of "Memory" by the addressee is given in the right part of the model (Fig. 3) in the form of the attractor structure (1-C'). By the nature of the trajectory of the attractor movement, which almost reflects the attractor structure (1-C), it is obvious that the meaning of the song was appropriately decoded by the recipient.

**Conclusions.** The presented research demonstrates an inextricable link between speech and music which is perfectly well manifested through their integrated functioning within a song. Being a great example of multimodal interaction, songs are arguably an interesting area of multimodal research, yet the investigation can be even more fruitful if other modes are added, for instance, visual mode. Therefore music videos, musicals, commercials comprise a promising field for further study.

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Марченко Валентина. Речемузыкальное произведение как мультимодальный текст: особенности взаимодействия речи и музыки. В статье рассмотрено речемузыкальное произведение как мультимодальный текст, созданный путем синтеза речи и музыки, которые интегрируются и перерабатываются сознанием реципиента в едином универсально-предметном коде мышления для реализации коммуникативно-эстетической или развлекательной функции, имеющий самодостаточную художественную ценность и транслирующийся слушателю в условиях живого общения или с помощью технических средств. В статье порождение, актуализация и восприятие речемузыкального произведения рассматриваются как синергетический механизм, заключающийся в интеграции вербальной и музыкальной культур автора под влиянием возбуждаемой позалингвальными факторами его психической энергии, а устная актуализация произведения происходит благодаря взаимодействию фонетических, лексических и синтаксических средств языка и музыкальных компонентов. При этом саморазвитие коммуникативно-когнитивных и речемыслительных процессов в сферах духовного бытия адресанта при порождении речемузыкального произведения и адресата в процессе его восприятия, рассматривается как такой, на ход которого оказывают решающее влияние параметры порядка, а именно речевая и музыкальная культуры. На основе данных, полученных во время теоретической и экспериментально-фонетической обработки предложенной инвариантной модели, обнаружено инвариантные модели порождения, актуализации и восприятия речемузыкального произведения как мультимодального текста: модель паритетного взаимодействия текста и музыки, модель доминирования речи, модель преобладание музыки и модель реверсивного взаимодействия вербальной и мелодичной составляющих. В работе представлена и проанализирована наиболее рекуррентная вариантная модель паритетного взаимодействия текста и музыки: на примере песни «Метогу» из мюзикла Э. Л. Уэббера «Кошки» раскрыты механизмы порождения, актуализации и восприятие песен такого типа. Указано целесообразность изучения взаимодействия речи и музыки на примере мультимодальных текстов, которые кроме вербальной и мелодической составляющей, имеют еще и иконическую, например, мюзиклы, видеоклипы, телевизионные рекламы и т. п.

**Ключевые слова:** интонация, музыка, мультимодальный текст, речь, речемузыкальная коммуникация, речемузыкальное произведение, синергетическая модель.

Marchenko Valentyna. Speech-and-Music Work as a Multimodal Text: Patterns of Speech and Music Complementarity. У статті розглянуто мовленнєво-музичний твір як мультимодальний текст, створений через синтез мовлення й музики, що інтегруються і переробляються свідомістю реципієнта в єдиному універсально-предметному коді мислення для реалізації комунікативно-естетичної або розважальної функції, який має самодостатню художню цінність і транслюється слухачеві в умовах живого спілкування або за допомогою технічних засобів. У статті породження, актуалізації і сприйняття мовленнєво-музичного твору розглядаємо як синергетичний механізм, що полягає в інтеграції вербальної та музичної культур автора під впливом збуджуваної позалінгвальними факторами його психічної енергії, а усна актуалізація твору відбувається завдяки взаємодії фонетичних, лексичних і синтаксичних засобів мови та музичних компонентів. При цьому саморозвиток комунікативно-когнітивних і мовленнєво-мисленнєвих процесів у сферах духовного буття адресанта під час породження мовленнєво-музичного твору й адресата у процесі його сприйняття, розглядаємо як такий, на перебіг якого здійснюють вирішальний вплив параметри порядку, а саме мовленнєва та музична культури. На основі даних, отриманих під час теоретичного та експериментально-фонетичного опрацювання запропонованої інваріантної моделі, виявлено інваріантні моделі породження, актуалізації та сприйняття мовленнєво-музичного як мультимодального тексту: модель паритетної взаємодії тексту й музики, модель домінування мовлення, модель переважання музики та модель реверсивної взаємодії вербального та мелодійного складників. Відтак у праці представлено й проаналізовано найбільш рекурентну варіантну модель паритетної взаємодії тексту й музики та на прикладі пісні «Метогу» з мюзиклу Е. Л. Веббера «Коти» розкрито механізми породження, актуалізації та сприйняття пісень такого типу. Зазначено доцільність вивчення взаємодії мовлення й музики на прикладі мультимодальних текстів, які, крім вербального та мелодійного складників, мають ще й іконічну, наприклад, мюзикли, відеокліпи, телевізійні реклами тощо, що є перспективним і дають змогу поглибити знання про взаємозв'язок мовлення й музики.

**Ключові слова:** інтонація, мовлення, мовленнєво-музична комунікація, мовленнєво-музичний твір, музика, мультимодальний текст, синергетична модель.