



# INTERACTION OF MEANS OF MUSICAL EXPRESSION IN JAZZ AND THEIR INFLUENCE ON THE LISTENER'S EMOTIONAL PERCEPTION

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## INTERACTION OF MEANS OF MUSICAL EXPRESSION IN JAZZ AND THEIR INFLUENCE ON THE LISTENER'S EMOTIONAL PERCEPTION

### Abstract

The article discusses the interaction of elements of musical expressiveness on the example of swing, as well as their influence on the listener's emotional perception. As a result of the analysis, it was revealed that expressive elements form a complexly organized system in jazz instrumental music and that determines the sound of this style and its emotional and semantic content.

**Keywords:** Musical expressivity, tempo, rhythm, harmony, mode, tonality

### Introduction

According to the B. Asafiev theory perception of music is the main activity available to every person [1]. In general, the idea of music being as an effective and efficient source of emotional communication is not new. In addition to B. Asafiev, many musicologists, performers, teachers, psychologists and other scientists proposed their ideas about the problem of music perception. B.M. Teplov thought that the music perception is an emotional experience and acts as a kind of non-verbal knowledge, as the

unity of «affect and intelligence» [2]. He judges music as a means of emotional perception of the world: «It's not possible to understand the content of music by non-emotional means ... A musical perception is an emotional and cognitive experience at the same time» [2, p. 186]. A. G. Kostyuk's scientific work is dedicated to the problems of musical taste and perception, where he investigates the relation of emotions to the content of the musical piece, as well as the specifics of the listener's musical and aesthetic response to music [4]. Kostyuk proposes that the

emotions, which arise in the process of perception, become «logical», «ordered», acquire relief tendencies of development, become «intonated» because of the clear compositional structure of a music piece [4, p. 274].

### **Methods.**

There are many scientific works of both foreign and Russian musicologists regarding the topic of research. Accordingly, the most appropriate research methods are - historical and descriptive methods. This article analyzes the scientific works of such prominent Russian musicologists such as Asafiev, Nazaikinsky, Teplov, as well as their foreign colleagues: Maria Korsakova-Krein, Sloboda and O'Neil, and others. In order to study the problem comprehensively, we will carry the historical research the development of swint (the style of jazz music) and conduct a comprehensive analysis of the means of musical expression that are inherent to this genre.

### **Results.**

During the complex analysis we found out that various means of musical expression in jazz music of the swing era (rhythm, harmony, melody, etc.) are closely interconnected, forming a very complex and multifaceted musical texture that is interesting to listeners from around the world for more than 70 years. Considering the fact that the rhythm, melody and harmony in jazz are closely interrelated, musicians and musicologists should analyze jazz music in a comprehensive manner in the context of the interaction of these musical means. The conclusion and results of this article should be used in optimization process of jazz instrumental education in higher school.

### **Discussion.**

American scientists Sloboda and O'Neil [5, p. 415] found that people listen to music in order to get pleasure, relaxation, and expression of emotions. According to M. Kokisheva, the degree of expectation from a musical work depends on the listener's skills: «The dialecticity of musical perception presupposes the presence of stable auditory pinpoints, as well as pinpoints that update the auditory perception. We assign expected sound complexes to stable pinpoints, and the new sounds, unusual for the listener are assigned to the updated pinpoints. The absence of one of these components causes a loss of interest in the composition. The listener gets pleasure from hearing familiar musical elements in the musical piece, but he gets even more surprised by unexpected, sometimes exotic sounds» [6, p. 150]. The latest foreign scientific researches [7] show that music is capable of influencing both human emotions and mood, moreover, the listeners very accurately determine the emotions inherent in a musical work [8], [9]. Balkvill and Thompson [9] conducted a study to determine the ability of listeners (non-professional musicians) to identify the alleged emotion in music from an unfamiliar tonal system (from another musical culture). Scientists tried to identify psychophysical signals as central part of the perception of musical material. Psychophysical signals were defined as «a sound property that can be perceived independently of mental experience, knowledge, or enculturation» [9, p.15]. These psychophysical signals included tempo, timbre, tonality range, melody complexity and rhythm. Conducting the experiment, Ballville and Thompson offered the subjects to listen to unfamiliar musical material, noting how the listener

observed the psychophysical signs inherent in the music. They think that if judgments and associations are made on the basis of analyzing psychophysical signals, then theoretically listeners should be able to recognize embedded emotions in music from an unfamiliar tonal system. Balkvill and Thompson chose the classic Hindustani tone system for the experiment. Raga is the central part of classical Hindustani music - a complex multi-level system, «the specificity of which is due to the belonging to the professional music of oral-written tradition» [10, p.18]. Listeners who are unfamiliar with the Hindustani tonal system correctly identified emotions in rags, and there was observed a significant correlation between the perception of the psychophysical elements of music and its emotional evaluation. The authors believe that the listeners' sensitivity to the emotions in music depends on the perception of the psychophysical signals of the auditory environment.

Russian musicology has its own alternative to the term «psychophysical signals» - means of musical expression. R.V. Sladkopevets analyzed the means of musical expression as part of the artistically productive side of the performing process [11]. Which means have a greater influence on the emotional perception of musical material? So Marilyn Moore [12] in 2013 conducted an experiment, the subjects were 41 people aged from 22 to 81 years old, every subject attended a one hour musical material listening session. The author composed eight compositions to recreate certain emotions for the experiment. During the study, these compositions were played with the exclusion of any means of musical expression (for example, the musical piece was reproduced without a

rhythmic component). When summarizing the results of the study, it turned out that musical means such as rhythm and harmony have a greater impact on the listener's emotional evaluation of a musical piece.

A recent study by neuropsychologist Marina Korsakova-Crane (USA) supports the idea of the importance of harmony in the emotional perception of music. According to her opinion the perception of music is the reading of a picture of audible information [13]. An appropriate reference system is necessary for the correct creation of any meaningful image during the perception of any information. In the tonal reference system, the tonic serves as a center of attraction, with the result that the music is organized as a kind of gravitational field. Marina Korsakova-Krein believes that «music has an amazing ability to encode the sensual life of people in subtle details. Following the flow of tones that sound in time, the human mind recognizes feelings and general ideas in the sounding fabric of music. This fabric consists of tonal distances between individual sounds and chords organized along the vector of time» [13, p.2]. A study was made to investigate the reaction of listeners to all possible distances in tonal space and in all modal conditions: 12 short musical phrases were written, then each of the 12 phrases was transformed so as to obtain all the initial and final modal conditions for reorientation (modulation in 12 other tonalities of the chromatic scale). According to the experiment, modulations from one tonal center to another can be done in four modes: from major to minor and from minor to major, as well as from major to major and from minor to minor. As a result, it was found that the listeners identified different distances in the tonal space with such accuracy, as if they

knew and clearly understood the laws of musical theory, the participants of the study recognized the popular and unusual turns in the tonal field in the experiment. The following conclusion by the author of the study is very interesting: «The data we obtained suggests that for music listeners the transition to a distant tonality felt much colder and darker than transitioning to similar tonalities. Most importantly, the fleeting sensations of heat and light turned out to be inseparable from the feeling of tension - the most important feature of the tonal force field. The results of our experience indicate that ... the farther the final tonal center is from the initial one, the greater the perceived tension and the darker and colder our sensations will be from transitioning to the far tonality» [13, p.3]. In general, there is currently a trend among the foreign music community in highlighting harmony as a system-forming element in musical perception.

We agree with the opinion of such scholars as E. Nazaikinsky, V. Medushevsky, O. Tsvetkova, A. Lushina and others who emphasize the importance of a complex of means in musical expressiveness. Considering the problem of jazz instrumental music perception, in particular, «swing» (30-40 years of XX century), we note that each of its means of musical expressiveness should not be analyzed discretely, as this violates the integrity of the musical material - the jazz standard. For a complete understanding of this issue, we present the analysis of the jazz standards «Fly Me the Moon» [14] and «Autumn Leaves» [15]. On closer examination, it turns out that harmony; melody, mood, rhythm, etc. interact very closely with each other. In particular, in every jazz standard we can find a series of deviations (temporary transition to a different tonality) and modulations

(change of tonality). It should be noted that deviations / modulations occur by applying the harmonic sequence  $IIm7-V7-Imaj7$ ,  $V7-Imaj7$  in major (for example,  $Dm7 - G7 - Cmaj7$ ) or  $IIm7b5 - V7 - Im7$ ,  $V7-Im7$  in minor (for example,  $Dm7b5 - G7 - Cm7$ ), where the chord from the second degree belongs to the subdominant family (S) of chords, the chord V - to the dominant (D), and the chord I - to the tonic (T). (Figures 1 and 2)

Figure 1 – Analysis of the standard «Fly Me to the Moon».

Figure 2 - Analysis of the standard «Autumn Leaves».

As we can see (Figure 1, 2) there are a lot of deviations in other tonalities in jazz music, in fact, the entire harmonic language is based on such deviations with the shift of the tonal center and musical harmony. We assume that instrumental jazz music is interesting, because there is a constant change of emotional state through deviations into other tones in every jazz standard, and as we found out from the study of M. Korsakova-Crain, casual listener very accurately captures and perceives these tonal displacements.

Now let's analyze how the jazz composition melody works together with harmony. It is worth noting that each chord in the jazz standard is a full-fledged

functional unit, and each improviser has the right to consider this chord as a separate tonal center (for example, the Dm7 chord in Dm7-G7-Cmaj7, can be considered as part of this progression, or a separate functional unit, i.e. the tonal center the note D, the Dorian mode, etc.). Thus, each chord has its own characteristic musical color, which is emphasized by the melody by playing “guide tones” (characteristic chord tones). In jazz music, the characteristic tones of the chord are 3rd and 7th degrees. If we study the structure of the seventh chords (maj7, m7, m7b5, dom7), we get the following:

maj7 - 1; 3; 5; 7 (tonic, major third, perfect fifth, major seventh)

m7 - 1; b3; 5; b7 (tonic, minor third, perfect fifth, minor seventh)

m7b5 - 1; b3; b5; b7 (tonic, minor third, diminished fifth, minor seventh)

dom7 - 1; 3; 5; b7 (tonic, major third, perfect fifth, minor seventh)

As we can see, 5th degree remains unchanged (with the exception of the half-diminished seventh chord), and the first degree of the chord is usually played by a double bass player. Thus, there are two degrees that characterize the sound of each chord.

In jazz standards the melody in most cases falls on the third or seventh degree of the chord on the first beat (change of chord), thereby emphasizing its character, moreover, a smooth vocalization is ensured. (Figure 3)

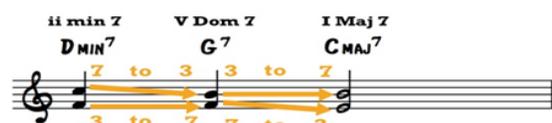


Figure 3 – An example of a smooth voice study in progression II-V-I through the use of «characteristic tones» of the chord

## Conclusion

Rhythm, tempo and pulsation are also among the main characterizing elements

which closely connected with melody and harmony in jazz. According to many great jazz musicians (Herbie Hancock, Chick Corea and others), rhythm is a system-forming element of this music. So Louis Armstrong said: «If you do not stamp your foot while listening to jazz, you will never understand it» [16, page?]. A distinctive feature of jazz is a diverse syncopated rhythm. «The feeling of jazz is achieved by the presence of swing, rhythmic impulsiveness, giving rise to tension at the moment of performing jazz pieces» [16, page?]. «Swing» (English «swing» - swinging, rotation) is a polyrhythm, characterized by a triple pulsation - two eighth notes are played as a triple quarter and a triple eighth. However, it should be noted that the execution of only a triplet does not give a complete sense of swing, namely, accentuation, moving the accent from a strong beat to an offbeat provides this feeling.

Recently, harmony has been highlighted by Western musicologists as the main system-forming element in music - the popular concept of «negative harmony» (Negative Harmony) is proof of this [17], [18]. We believe that this view is one-sided when analyzing the means of musical expressiveness, and also leads to the wrong «emotional presentation» of musical material to the listener - composers and performers who hold this point of view do not have the opportunity to convey to the listener the entire emotional-sense palette, since overly focused on the harmonic aspect of music.

In our opinion, the level of interaction of musical expressiveness in jazz is at a higher level and their combination creates the very, unique sound of the swing of the 1930-1940s. Changing or excluding at least one of the elements leads to a drastic change in the emotional mood

of a piece of music. An increase in the tempo of jazz compositions together with the complication of the melodic line led to the creation of bebop, the rethinking of the modal concept gave impetus to the development of modal jazz, a further departure from the concept of tonal music became the basis for the emergence of atonal jazz, the experiments of the famous American pianist and composer Herby Hancock with pulsation and musical groove became the origins of hip hop birth.

Each jazz musician-performer must conduct a comprehensive analysis of a musical work by studying all means of musical expression; understand its «emotional essence» before embarking on its performance. Inadequate perception by the performer of musical material leads to a misinterpretation, which ultimately affects the listener, who cannot adequately appreciate the entire emotional and semantic palette of the musical piece.

### References:

1. Asafiev B. Musical form as a process. – M., – L.: Muzgiz, 1947. – 163 p.
2. Teplov B. Psychology of musical abilities. – M.: Science, 2003. – 379 p.
3. Sohor A. Sociology and musical culture. – M: Composer, 1975. – 275 p.
4. Kostyuk A. The perception of music and artistic culture of the listener. – L.: Издательство?, 1971. – кол-во стр.
5. Sloboda J., O'Neill S. (2001). Emotions in everyday listening to music // Music and emotion: Theory and research / P.Juslin & J.Sloboda (eds). – Oxford: Oxford University Press. – P. 415-429.
6. Kokisheva M. Symphonic kuy in the works of modern composers of Kazakhstan: the genesis of the genre, typology and development: dis ... Doctor of Philosophy: МПТИ / учебное заведение. – Almaty, 2016. – кол-во стр. – Инв. № \_\_\_\_.
7. Gabrielsson A., Juslin P.N. Emotional Expression in Music Performance: Jordal // <https://journals.sagepub.com/doi/10.1177/0305735696241007> (date of access ).
8. Blood A. J., Zatorre R. J. Intensely Pleasurable Responses to Music Correlate Proceedings of the United States of America, 98, 11818-11823 // [https://www.scrip.org/\(S\(i43dyn45teexjx455qt3d2q\)\)/reference/ReferencesPapers.aspx?ReferenceID=1640746](https://www.scrip.org/(S(i43dyn45teexjx455qt3d2q))/reference/ReferencesPapers.aspx?ReferenceID=1640746) (date of access ).
9. Balkwill L., Thompson W.F. (1999). A Cross-Cultural Investigation of Perception of Emotion in Music: Psychophysical and Cultural Cues. Music Perception // An Interdisciplinary Journal. – 1999. – № 17ю – P. 43-64.
10. Savina N. Raga in the North Indian tradition of Khayal: on the problem of the text: Author. dis ... kand.isk. МПТИ / учебное заведение. – Vladivostok, 2008. – кол-во стр. – Инв. № \_\_\_\_.
11. Sladkopevtsev R. Means of musical expressiveness as an element of the artistic and productive side of the performing process // Bulletin of Moscow State University of Culture and Arts. – 2014. – № 5. – P.314-319.
12. Moore Marilyn M. Rhythmic Variation, Rhythmic Variation, Emotional Judgment in Music. Master's Theses Publication. – 2013. – № журнала. – P. \_\_\_\_.
13. Korsakova-Crane M. Emotions in music: the perception of distances in the tonal field // <https://postnauka.ru/longreads/38133> (date of access ).
14. Название материала // [https://www.youtube.com/watch?v=mQR0bXO\\_yI8](https://www.youtube.com/watch?v=mQR0bXO_yI8) (date of access ).
15. Название материала // <https://www.youtube.com/watch?v=KZbI2VZF9K8> // (date of access ).

16. Rhythm in jazz // <http://www.musicexplore.ru/muexs-273-1.html> (date of access ).
17. Levy E. A Theory of Harmony. – New York: State University of New York Press, 1985. – 99 p.
18. Название материала // <https://medium.com/cuepoint/rockit-revisited-how-herbie-hancock-crafted-a-hip-hop-classic-12cd19406ca5> (date of access ).

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**ВЗАИМОДЕЙСТВИЕ СРЕДСТВ МУЗЫКАЛЬНОЙ ВЫРАЗИТЕЛЬНОСТИ В ДЖАЗЕ И ИХ ВЛИЯНИЕ НА ЭМОЦИОНАЛЬНОЕ ВОСПРИЯТИЕ СЛУШАТЕЛЯ**

**Аннотация.**

В статье рассмотрено взаимодействие средств музыкальной выразительности на примере свинга, а также их влияние на эмоциональное восприятие слушателя. В результате анализа выявлено, что в джазовой инструментальной музыке выразительные средства образуют сложноорганизованную систему, которая определяет звучание данного стиля и его эмоционально-смысловое наполнение.

**Ключевые слова:** Музыкальная выразительность, темп, ритм, гармония, лад, тональность

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**ДЖАЗДАҒЫ МУЗЫКАЛЫҚ МӘНЕРЛІК ЖӘНЕ ОНЫҢ ТЫҢДАУШЫ ҚАБЫЛДАУЫНА ЭМОЦИОНАЛДЫҚ ӘСЕР ЕТУІ**

**Аңдатпа.**

Мақалада свинг мысалында музыкалық мәнерлілік құралдарының өзара әрекеттесуі, сондай-ақ олардың тыңдаушының эмоционалдық қабылдауына әсері қарастырылған. Талдау нәтижесінде джаз аспаптық музыкасында мәнерлі құралдар осы стильдің дыбысталуын және оның эмоциялық-мағыналық толуын анықтайтын күрделі ұйымдастырылған жүйені құратыны анықталды.

**Түйінді сөздер:** музыкалық мәнерлілігі, қарқыны, ырғағы, гармония, мәнері, тоналдылық

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