© EUROPEAN REVIEW OF ARTISTIC STUDIES 2017, vol. 8, n. 3, pp. 1-12 ISSN 1647-3558

DISCUSSING HARMONIZATION AND CHORD IN THE PIANO GROUP TEACHING

BOLLOS, Liliana Harb[1]; & COSTA, Carlos Henrique[2]

Abstract

This paper discusses the Harmonization as an essential tool in the Group Piano discipline in order to reinforce the importance of harmonic practice in collective piano lessons and presents several harmonizations steps as cadences and chord functions in the song "Sambalelê". It also presents the results of this experiment performed within the action research in three classes and two higher educational institutions in Brazil.

Key-words: *Functions Chords; Group Piano Teaching; Harmonization. Harmony; Supplementary Piano.*

Data de submissão: Março de 2016 | **Data de publicação**: Setembro de 2017.

[1] LILIANA HARB BOLLOS - Universidade Federal de Goiás, Goiânia. Pesquisadora PNPD-CAPES na EMAC-UFG - Escola de Música e Artes Cênicas. BRASIL. E-mail: lilianabollos@uol.com.br

[2] CARLOS HENRIQUE COSTA - Universidade Federal de Goiás, Goiânia. Professor de Regência e Piano EMAC/UFG. Coordenador do Mestrado em Música. Escola de Música e Artes Cênicas. BRASIL. E-mail: costacarlosh@yahoo.com.br

1. Introduction

University Music departments are currently experiencing many debates about instrumental pedagogy, including discussions on methodologies, syllabi and repertoires. These actions aim to rethink the processes of learning an instrument, seeking to reveal the contexts in which these processes take place in order to define better strategies and teaching objectives. In addition, these actions question more conservative models of instrumental teaching, replacing them with others that address the development of diverse musical skills, contributing to the integral training of the musician. This aims to enable the student to have a full musical understanding through the appropriation of musical language, seeking the autonomous and creative development of the player. Considered a complete instrument, the piano is a fundamental basic tool in the study of music because of its easy visualization of concepts, and because of its different melodic, rhythmic, harmonic, polyphonic and expressive possibilities, in such a way that its study is necessary in the academic formation of a music major.

Piano teacher Federal University of Bahia Diana Santiago points out that the teaching of piano at the university takes on a prominent role, since the instrument is an unparalleled resource for learning various skills and its practice gives students in melodic or rhythmic instruments contact with the accompanied melody. In addition, the study of piano allows music education students to learn and create arrangements that make their teaching practice easier. Furthermore "for students of voice, composition and conducting, the study of piano becomes an invaluable resource, companion of vocal preparation for the first, the compositions of the second and the study of scores by the third" (SANTIAGO, 2012, p. 5).

What are the Goals for Non-Pianists? Despite all musicians need keyboard proficiency to function as teachers, performers, composers or arrangers, most of them do not perceive/ realize/see this necessity/ need at their stage of development. Non-keyboard music major should not be suppose to perform in recitals, but they should be able to perform for peers in non-pressured situations. Lancaster and Renfrow point out that "they should develop functional skills that will allow them to be successful in all their musical endeavors" (1996, p. 5).

One of the goals of Complementary Piano is to introduce and develop the basic principles of piano technique, so that the piano is used as a support in teaching practices and other instruments developing fundamental skills such as sight-reading, technique, analysis, harmonization, improvisation and transposition. We develop, thus, both the motor and cognitive parts of the teaching and learning process. In this way, the inclusion of the study of harmony in a practical and systematic way favors a greater awareness of the interpreter in relation to musical language, providing students with more refined harmonic thinking, favoring skills such as memorization, harmonization, transposition and improvisation.

There are those who consider that studies in harmony, counterpoint, and fugue are the exclusive province of the intended composer. Walter Piston (1959, p. 1) believes that theory must follow practice, rarely preceding it except by chance, we must realize that musical theory is not a set of directions for composing music. For him, this knowledge is indispensable to musicians in all fields of the art, whether they be composers, performers, conductors, critics, teachers, or musicologists.

The problem with this research is developing the conscious study of harmony within the instrumental piano practice, approaching, thus, theory and practice. As a result, it is expected that the musician, to analyze and better understand the harmonic paths, should assimilate more assertively and play more consciously. With this, the student can shorten the time needed for the improvement of the pieces practiced, allowing the path of instrumental study, consisting of reading, fingering, technique, assimilation, and interpretation, often time-consuming, to decrease considerably. How can we develop better harmonic understanding for pianists? This research discusses Harmonization as an essential tool and an integral part of the Complementary Piano class in undergraduate courses in Music Pedagogy, approaching instrumental practice to the teaching of harmony. It also proposes a practical sequence of activities using the ditty "Sambalelê as well as presenting the results obtained within this educational experience".

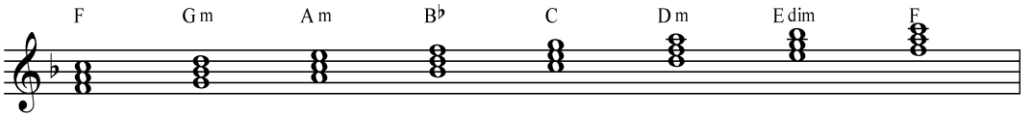
This article is part of Post-doctoral research at the School of Music and Drama of Federal University of Goiás (Brazil), funded by CAPES-PNPD. The line of research is based on action research, of empirical basis, in a participatory manner, in order to reflect and intervene critically about our pedagogical procedures, thus building new knowledge. The data collection instruments were based on written questionnaires, practical class observations

and audiovisual records of these events and the data collection tool was participant observation, which served to understand and answer questions about students' teaching and learning processes.

2. Harmonizations in "Sambalelê"

James Bastien (1973, p. 390) says that the study of keyboard harmony is highly practical for all levels of piano study. Aural acuity will be heightened by functional harmonization. For anyone using the piano, from the grade school teacher harmonizing simple tuner, to the performer grappling with late Beethoven, a firm sense of harmony in a practical keyboard application is vitally needed. Although somewhat outdated with today's "lead sheet" type chord symbolization usage, an advanced keyboard harmony class will probably include work with figured bass realization.

In the theory of harmony the successive tones of a diatonic scale are called degrees (or steps). These degrees are designated with Roman numerals. On each tone in a diatonic scale we can build a triad, using tones from the familiar scale. The construction consists of a root tone with a third and a fifth on top. If harmony is the relationship between the chords, harmonization, on the other hand, is the act of performing the harmony, applying the harmony within the musical repertoire from a melody. Thus we shall illustrate the functions of the chords through the F major harmonic field:

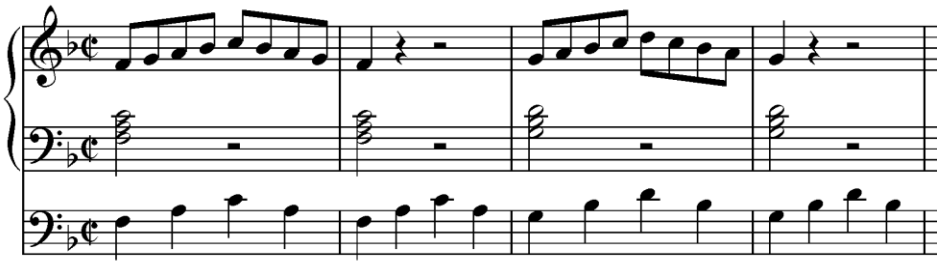


Example 1: F Major Harmonic field.

Although there are seven diatonic chords in major and minor harmonic systems, these chords can be grouped into three categories according to their function. The three functional categories are Tonic, Dominant and Subdominant. In the most literal sense the tonic chord is built on the first degree of the scale, the dominant chord is built on the fifth degree of the scale and the subdominant is built on the fourth degree of the scale (BOLING, 1993, p. 23). The tonic functional category includes I, iii, VI (F, Am, Dm), the subdominant functional category includes ii, IV (Gm, Bb) and the dominant functional category includes V, vii (C7, Edim), according to Dan Haerle (1980, p. 13). On the other hand, within Functional

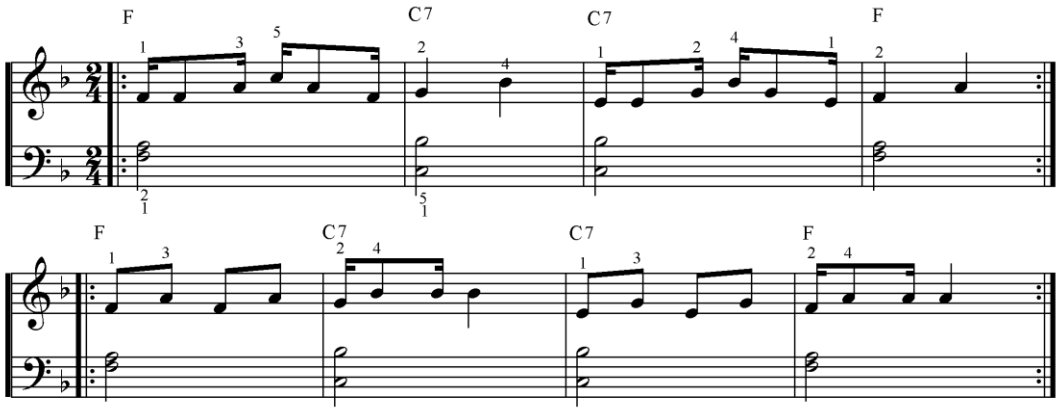
Harmony, besides the functions mentioned above, III (Am) still plays the role of relative dominant (Dr) and VI (Dm) , of anti-relative subdominant (Sa). However, for the purposes of our work, we have considered one function for each chord in the harmonic field.

Before starting the repertoire development activity with the song "Sambalelê", we gave the students various exercises in harmonic field of the same key (F major), such as five-finger scales (upper staff), triads (intermediate staff) and arpeggiated triads (lower staff) in order to develop the cognitive part, fixating the chords and also developing motor dexterity, working in various tempos, as a group, as shown below:



Example 2: exercises in the F Major harmonic field.

In the activity inside the F major harmonic field, students performed with simultaneous or separate hands, according to their technical skills, wherein the most experienced were encouraged to perform the first and third staves simultaneously. The important thing was to experience the chord sequence in F major to introduce the song "Sambalelê" (Example 3), in the same key.



Example 3: Sambalelê.

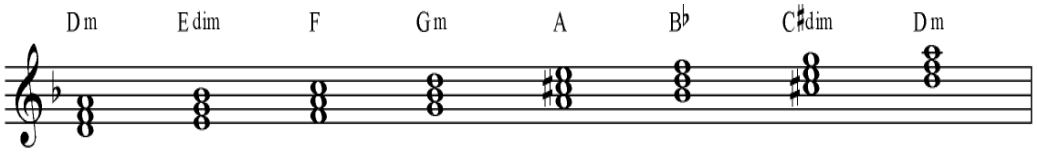
Based on the melodic analysis of music, in Example 3, two chords were chosen as a first harmonization, F (tonic) and C7 (dominant chord), as we can watch this version on Video in F (2016). We have relation of rest (F) and movement, tension C7, which has the interval of three tones called the tritone between the third (E) and seventh (Bb). The tonic function (F) characterizes the rest because it sets the tone. In turn, the dominant function characterizes the instability approach, and creates a sense of movement. In the example above, the left hand plays the tonic (F) with the root and third of the chord (fingers 2 and 1) and the dominant (C7) with the root and seventh (fingers 5 and 1). This technique in the left hand will lead to the open-chord distribution technique, described previously, in which both hands perform melody, chord and bass.

Another step to harmonize melodies is to introduce the subdominant function to the authentic cadence V - I, providing progressions IV - V - I or II - V - I. According to Andy Jaffe, "obviously the V7 chord has become the primary dominant seventh chord progression serves as the underlying harmonic basis for the functional harmony of most classical, popular, and standard song repertoire in Western music" (JAFFE, 1996, p. 30).

We can thus relate harmonic functions beginning from rest (tonic), finding movement (subdominant), instability (dominant) and returning again to stability (tonic), thus related as main degrees I - IV - V - I, and in the key of F major, F - Bb -C - F (F - P - C - F). Secondary relative and anti-relative degrees have less notes in common that the main degrees, but are widely used in the harmonization and reharmonization of melodies.

For Schoenberg, the most important principle of harmonic connection is a good progression. However, many chord connections are not of purely harmonic origins, but rather of melodic, it is necessary to connect the chords in such a way that the melodic influences have a chance to become evident (SCHOENBERG, 2001, pp. 33-34). In this sense, when choosing chords, we must take into account not only the harmonic function but also the melody and the roots where chords rest. After a brief explanation of chord functions, we inserted degree VI (D minor) after the root and degree II (Gm) before the dominant chord and played | F Dm | Gm C | Gm C | F C | . Another option was to enter degree IV (Bb) before the dominant.

Then, we present another harmonization feature that is to consider the relative minor, D minor, as the main key, using an authentic cadence (A7 - Dm) of the harmonic minor field of D harmonic minor:

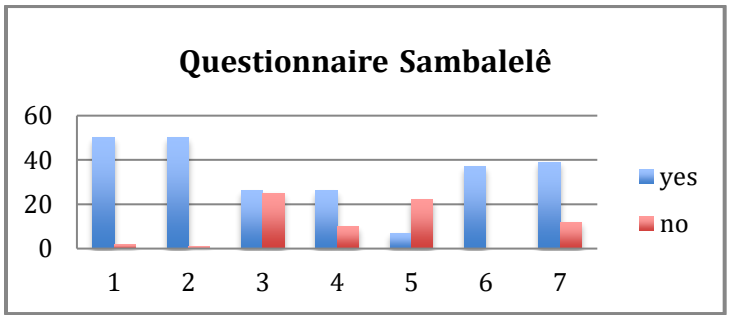


Example 4: harmonic field of D harmonic minor.

The melody underwent no change, but the left hand played D and F to the tonic Dm, and A and G to the dominant A7, as we can watch this version on Video in Dm (2016). With this feature, we would have other harmonization options using the minor harmonic field with the progression Dm - A7 - Dm. For example, we can also harmonize “Sambalelê with i, iv, V, I, like | Dm | Gm | A7 | Dm | .

3. Results

For the analysis and evaluation of results, we considered as instruments for data collection audiovisual records, the questionnaire done immediately after the activity and for data collected we had two indicators, cognitive and motor processes, which are: 'understanding of harmony "(cadences, chord functions) and moving about the piano (chord distribution, independence of the hands) arising from the educational proposals implemented. This harmonization activity with "Sambalelê" was developed in two institutions of higher education in the classes Group Piano and Complementary Instrument - Piano in three groups, with 52 students. We have the chart below with the results of the questionnaire:



Legend: Questionnaire Sambalelê

1. About the F major harmonic presented in class, do you think being first introduced to the harmonic field before starting the practical activity helped you to understand the harmony of the tune?
2. Could you understand the Tonic and Dominant functions on Sambalelê?
3. Were you able to perform the tune Sambalelê with both hands?
4. Were you able to understand the Tonic, Subdominant and Dominant functions in the proposed activity?
5. During the activity Sambalelê we played two versions - in F major and D minor. We created a reharmonization based on the melodic-harmonic relationship of the harmonic fields. Had you ever experienced this type of activity?
6. On the harmonic field D minor, do you think being first introduced to the harmonic field before starting the practical activity helped you to understand the proposed harmonization?
7. Do you believe that this activity could benefit you later, when analyzing and / or harmonizing another tune?

We found that being first introduced to the harmonic field in the same key as the tune facilitated the understanding of its harmony for 96% of students, 98% perceived the Tonic and Dominant functions and 76% were able to understand the Tonic, Dominant, and Subdominant functions in the proposed activity. On the other hand, 51% of students performed the theme Sambalelê with both hands and 72% said that being first introduced to the D minor harmonic field before starting the practical activity helped to understand the proposed harmonization. Only 24% had tried to play a tune in major and relative minor key before, and all said that this harmonization activity may benefit them later.

We have defined as a guiding principle our own experience as teachers and researchers through action research, discussing in this article our didactic proposal with matching activities from the "Sambalelê" activity. Action research has been shown to produce information and knowledge more effectively in the pedagogical sphere, on the finding of "disappointment with the conventional methodology, the results of which, despite its apparent precision, are far removed from the current situation of education’s urgent problems” (THIOLLENT, 2002, p. 74).

When evaluating our practice we made a self-reflection in order to intervene, collaborate and modify our actions, taking into account that our research combines theory and practice, occurs at the same time as one teaches, for:

> "Practice is the starting point. From it emerge the questions, the needs and the possibilities, that is, practice sketches the paths to be taken. [...]. One parts from practice to return to it. However, upon returning, one does not find the same initial practice, there is a new quality to the extent that the action-reflection-action motion generates transformation, that allow progress towards better understanding of the phenomenon, relativising the immediately noticeable" (ESTEBAN & ZACCUR, 2002, pp. 21-22).

Action research must include the active participation by those who have to carry out the work in the exploration of problems that they identify and anticipate. After investigation of these problems the group makes decisions, monitoring and keeping note of the consequences. Regular reviews of progress follow. The group would decide on when a particular plan or strategy had been exhausted and fulfilled, come to nothing, and would bring to these discussions newly perceived problems (ADELMAN, 1993, p. 9).

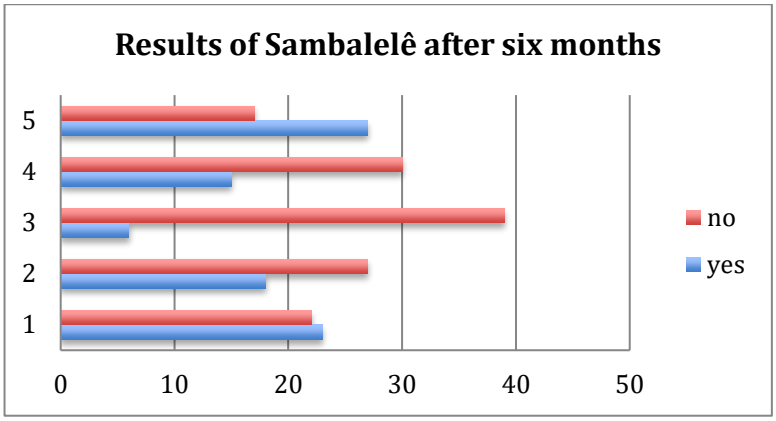
In this way, as we worked with three groups had the opportunity to turn different ways from the previously developed experiment, transforming the later experience. For example, in the first group the hand fingering was not placed in the score and there was doubt in the execution. Beginning at the second group, however, we added fingerings for both hands to the score and discussed the importance of fingering for hand motion, aiding the left hand's performance. Our aim was that the students visualise the fingering when they read the tune and analyze the harmony arpeggiated in its own melody. The students had difficulty performing the melody and had questions about what fingering to play. To save more time for the performative activity, starting with the second group, we decided to write the fingerings in the score and the students had no difficulty running the fingering.

Regarding the presentation of the harmonic field, we also took into account a difficulty that occurred in class to modify the subsequent activity. In the first experiment we asked students to perform at the piano the triads of the harmonic field and some students had difficulties in this execution. From the second class on, we wrote on the chalkboard the triads of the harmonic field so they could visualise and we were able to progress with practice. We also added to the score the tonic and dominant functions in Roman numerals (I and V), as shown in Lancaster and Renfrow (1995, p. 13) to facilitate harmonic analysis.

The American professor Christopher Fisher, author of *Learning piano in groups* (Oxford University Press, 2010), states that one of the most important factors in the collective piano lessons is thorough planning of each class, as well as the way it is inserted in the course as a whole. He says it is necessary that the teacher's plan be "clear and well-resolved for the presentation and reinforcement of the concepts and principles" to be discussed in class (FISHER, 2010, p. 14). We draw therefore our plan to strengthen aspects of harmony starting with the five note-exercise in the tune's key, F major, also showing the authentic cadence and the functions of the chords within the harmonic field. To work the independence of hands, the left hand has been increased so that would be performed only in the first half. For the more experienced students, they were also able to work with chords in triads and tetrads.

As a result, we observed that there was good understanding on both proposed indicators "Moving the piano" and "Understanding harmony", as our instrumental practice involves the cognitive and motor issue of understanding.

Six months later, we contacted the students in order to determine whether they remembered the activity and if so, if they could describe this memory. The result of this experience we can see in the chart below:



Legends:

1. *Do you remember the key?*
2. *Could you play with simultaneous hands?*
3. *Do you remember the notes and the left hand fingering?*
4. *Do you remember the chords?*
5. *Could you play Sambalelê after six months?*

As a result, we observed that, of the 52 students who participated in the first questionnaire, 45 returned to the second, after six months of activity. We found that 51% of students remembered the key, 40% were able to play with both hands, 13% were able to remember the left-hand fingering, 33.3% reminded the chords and 62% were able to play Sambalelê six months later. Few students remembered the harmony of the music, since for months they did not play the instrument, but many were able to play it, guided by the memory that they had by the activity.

Concerning the left hand, many students did not perform with both hands and did not remember the fingering of the left hand, because they are not pianists and not practice the instrument regularly. This question was posed in the questionnaire because during the activity we also practiced the left hand to facilitate the harmony through movement of the fingers. We saw in the example 3, the left hand performs the tonic (F) with the root and third of the chord (fingering 2 and 1) and the dominant function (C7) with root and seventh (fingering 5 and 1). Finalising the results of this questionnaire, the answer to the fifth question shows that 62% of the students were able to play Sambalelê after six months, without having had contact with the piano.

Faced with the result that only 33.3% remembered the chords, but 62% were able to play, it is assumed that although few students still have harmonic awareness of what is played, the number of students who think in harmony tends to increase if continue to work aspects of harmony and harmonization in the Piano Group lessons.

4. Final considerations

We believe that the ultimate goal in complementary piano lessons is that students have increasingly instrumental fluency, both cognitive and motor, addressing functional aspects of the piano as harmonization, reading, transposition and improvisation.

The more we know the harmony of a tune and the melodic-harmonic ratio of its chords, the easier it is to harmonize and interpret this melody. We tried to approach this work some aspects of harmony such as cadences, melody harmonization, and chord functions in the song "Sambalelê" in order to reinforce the importance of harmonic practice in collective piano lessons.

REFERENCES

ADELMAN, C. (1993). Kurt Lewin and the Origins of Action Research. *Educational Action Research*, 1(1), 7-24. doi: 10.1080/0965079930010102

BASTIEN, J. W. (1973). *How to Teach Piano Successfully*. Park Ridge: General Words and Music Co.

BOLING, M. (1993). *The jazz theory workbook.* (2ª ed). Rottenburg, N., West Germany: Advance Music.

ESTEBAN, M. T., & ZACCUR, E. (2002) (Orgs.). *Professora-pesquisadora:* uma práxis em construção. Belo Horizonte: Autêntica.

FISHER, C. (2010). *Learning piano in groups.* Oxford University Press.

HAERLE, D. (1980). *The Jazz language: A Theory Text for Jazz Composition and Improvisation*. Miami: Studio 224.

JAFFE, A. (1996). *Jazz harmony*. Rottenburg: Advance Music.

LANCASTER, E. L., & RENFROW, K. D. (1995). *Alfred's group piano method for adults: Teacher's handbook.* Book 2. Van Nuys, CA: Alfred.

PISTON, W. (1959). *Harmony*. London: Victor Gollancz Ltda.

SANTIAGO, D. (2012). Prefácio. In C. H. COSTA & S. G. MACHADO, *Piano em grupo: livro didático para o ensino superior*. Goiânia: Ed da PUC Goiás.

SCHOENBERG, A. (1978). Theory of harmony. Berkeley: University of California Press.

THIOLLENT, M. (2002). *Metodologia da pesquisa-ação.* São Paulo: Cortez.

Vídeo em F. 2016. https://www.youtube.com/watch?v=aPzmiU-sfqc.

Vídeo em Dm. 2016. https://www.youtube.com/watch?v=eEkjke10nv4.