Harmonization of Brazilian Popular Songs

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Abstract Harmonization of popular songs in Brazil has, for quite some time, been considered worthy of the attention of both music theorists and musicologists. The accompaniments attract attention due to their varied and sometimes original character. The peculiarities of the harmonization of popular Brazilian songs may not always be immediately comprehensible, nor correspond exactly to conventions found in analyses of the traditional concert repertoire. The chief reference treatises and manuals adopted in music schools can certainly provide satisfactory explanations, when appropriately used. Yet many specialists consider problematic some concepts and definitions that should facilitate the task of analysing popular songs. The Manual of Harmony by Igor Vladimirovich Spossobin, 1955 edition, is the textbook adopted for harmony classes in the undergraduate program at the Universidade Federal do Estado do Rio de Janeiro – Unirio. Considered one of the most complete on the topic, it is also used at the Tchaikovsky Conservatory in Moscow. The 2007 edition is also used for reference. Nevertheless, it is worth mentioning that the book has not been used intensively for the analysis of popular songs. The Manual covers 60 topics, some of which are useful in explaining harmonic language frequently present in popular songs. Concepts such as inclination, the major-minor system, augmented sixth chords, Neapolitan harmonies, ellipse, diminished-seventh chords and chords with non-chord tones, can be used to explain many of the harmonies heard in Brazilian popular songs.

Keywords Harmony, Brazilian Popular Songs, Musical Analysis

1. Introduction

Music theorists and musicologists in Brazil have been turning their attention to the harmonization of popular songs for decades, because of its variable and sometimes original uses. The harmonic peculiarities of Brazilian popular songs necessitate clarification since they do not correspond exactly to the time-honoured conventions of the traditional repertoire.

The best-known instructional manuals adopted by music institutions provide acceptable explanations. These books contain concepts and definitions ready to use in exercises, but up to now have seemed difficult for some experts, and thus have not been used intensively for the analysis of popular songs.

The undergraduate music program at the Universidade Federal do Estado do Rio de Janeiro – Unirio, has adopted the Manual for Harmony by Igor Vladimirovich Spossobin as its textbook for the field. While the 4th edition has been used at Unirio since 1970[1], the more recent, 2007 edition is now being used as well. The book has also been adopted at the Moscow Conservatory. The Manual covers 60 topics, some of which are useful in explaining harmonic language of popular songs. Concepts such as inclination, the major-minor system, augmented sixth chords, Neapolitan harmonies, ellipse, diminished-seventh chords and chords with non-chord tones can be used to explain many of the harmonies heard in Brazilian popular songs. Similar explanations appear in related works by such authors as Almir Chediak[2], Arnold Schoenberg[3], Ian Guest[4], Joaquin Zamacois[5], Nicolas Rimski-Korsakov[6], Paulo Silva[7], Philip Tagg[8] and Walter Piston[9].

2. Selecting the Repertoire to be Analyzed

Brazilian popular song refers as much to the object of study as to the production of tunes sung in Portuguese. In any event, the current analysis encompasses songs with Brazilian Portuguese lyrics. The study is not restricted to a particular time period, since doing so might lead to mistakes. As an example, the harmonic complexity frequently associated with Bossa Nova would seem to be at odds with the fact that songs recorded before 1950 contained non-diatonic harmonic progressions similar to those used after that period of time. For this reason, questions about the correspondence between genres, styles and period of time were put aside.

As an illustration, examples of the use of inclination include “Vira a casaca”, a song originally recorded in 1923 and remastered in 1996, played by Pixinguinha and the band Os Oito Batutas.
3. Spossobin’s Concepts and Their Applicability to the Concepts Used in the Analysis of Popular Songs

3.1. Inclination

In the 31st Theme of the Manual, page 235[1], Spossobin defines inclination as “briefly leaving the principal tonality and moving into a secondary tonality during the exposition of a monotonic or modulating structure (period). There are two types of inclination: passing and cadential. The passing inclination occurs inside the structure, without the cadence, it is similar to the passing tone or passing chord.”

On page 234 of the Manual, the author distinguishes inclination from modulation as “passing into a new tonality to conclude the musical structure in that tonality. As a rule, modulation ends in a complete cadence. The simplest modulation is that which substitutes the tonality at the end of the first period[1].”

| Table 1. Examples of Songs with Inclinations |
|---------------------------------------------|
| 1. “Vina a casaça” (Support another friend) by Joubert de Carvalho and Gáudio Viotti  |
| Key: C major  |
| Chord progression: E7/BAm/F#m/G Gm Dm G7 | C  |
| Analysis:V/VIm #1V [IVIV7]  |
| Placed at the second phrase of the second part.  |
| 2. “João e Maria” (John and Mary) by Chico Buarque and Sivuca  |
| Key: A minor  |
| Chord progression: Am7 | Dm7/G7 | Gm7/C7 |F7M  |
| Analysis:Im7 |Im7/V7 | V7/IM |V7M  |
| Corresponding lyrics: “...E pelaminha lei a gente era obrigada a ser feliz...”  |
| 3. “Água de beber” (Drinking water) by Tom Jobim and Vinícius de Moraes  |
| Key: B minor  |
| Chord progression: E7(9)/Em7(9)/A7(13) | D7M(9)  |
| Analysis:V7(9) |Im7/V7 | V7(13) | IIm7(9)  |
| Corresponding lyrics: “...E quasilavameuxoriação...”  |
| 4. “Look to the sky” by Tom Jobim  |
| Key: E flat major  |
| Chord progression: Abm7 | Db7 | Bb7M  |
| Analysis:Im7 | V7 | bII7M  |
| Placed at the final part of the song.  |
| 5. “O bêbado e a equilibrista” (The alcoholic and the man on wire) by João Bosco and Aldir Blanc  |
| Key: A major  |
| Chord progression: A7M | Cim7(b5) | F7 | Bm7 | D7M | Bm7 | E7(9) | C7M7  |
| Analysis:Im7 |Im7(b5) | V7/I | Im7 | V7M | Im7 | V7A | IIm7  |
| Corresponding lyrics: “...e um bêbado trazendo luto me lembrariversão...”  |
| A lua, tal qual um bordel, pedira a cada estrela traria um brilho dealugel?”  |
| 6. “Na intimidade meu preto” (Intimely, I’ll call you my black) by Nei Lopes  |
| Key: F major  |
| Chord progression: F7/Gm7/C7 | F7 | Bb6  |
| Analysis:Im7 | V7 | V7/I | V6  |
| Corresponding lyrics: “Quando eu saio pragas de a telha faz um escaréu, Dizendo que uniaovalho nada, E que a grandeculpa é a Princesa Isabel?”  |

This definition coincides with the notion of inclination as taught in both schools of music and in well-known manuals. Inclination is a harmonic technique that appears in the majority of songs. For this reason it may not be appropriate to group repertoire by its country of origin or a specific time period. However it is important to note that the process of inclination applied to some songs can be slightly different from the above definition.

The notion of inclination is frequently replaced by the concept of secondary dominants, more often used to explain harmonization in popular music. Almir Chediak[2] and Ian Guest[4] have consistently used it as an alternative to the term inclination. The concepts of secondary dominants and tonics are also explained in the 32nd Theme of the Spossobin’s Manual. There are many songs in which secondary dominants are combined with secondary or interpolated subdominants and followed by deceptive cadences (ellipsis), as in the passages shown below.

Most of the examples listed below have already been discussed in my dissertation, “Bossa Nova: a permanência do samba entre a preservação e a ruptura” (Bossa Nova: the endurance of samba amid preservation and rupture)[9].

3.2. Major-Minor System

The major-minor system is an important aspect of harmonic analysis. Spossobind DEFINES the concept on page 374[1] of the 49th Theme: “in the development of the idea of modality, the major and the minor modes have never had an isolated, independent existence. On the contrary, it has long been noted that changes, linked to the interaction of both modes, have produced complexities through the insertion of harmonic elements from either mode, which, as a result, become richer. The major and minor modalities become more complex due to their interaction and form the major-minor system, named major-minor or minor-major, depending on the leading tonic, major or minor. The system can be homonymous if they share the same tonic (for example C major – C minor) or parallel (for example C major – A minor).”

Modal interchange has been widely used in popular music. Philip Tagg points out that bitonality is common in many popular styles of Latin American music (page 10)[8]. Chords from the minor mode are often inserted in a song whose prevailing tonality is in the major mode. On the contrary, inserting major mode chords in a progression whose principal tonality is in the minor mode is much less common. The exception to this is the Picardy third, used both in traditional and popular music.

The idea of modal interchange comes closer to Spossobin’s definition, due to the fact that major and minor mode are often mixed together. It is important to consider additional modal interchanges, which occur in the church modes: Mixolydian, Lydian, Phrygian and Dorian. In his book, *Theory of Harmony*, Arnold Schoenberg describes the genesis of the major and minor modes and considers them “both a residue of the seven church modes”[3].

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However, modal interchange in popular music typically occurs when the major and minor tonics are the same, or homonymous. In Walter Piston’s *Harmony* [10] he explains modal interchange along with the idea that the minor mode runs parallel to the major. The same notion appears in Spos gobin’s *Manual*, yet the minor mode is not the homonymous but the relative, which shares the same key signature as the corresponding major.

The major-minor system comprises the modal interchange concept as demonstrated below:

### Table 2. Examples of Songs in Major-Minor System

| Key: | E flat major |
|------|--------------|
| Chord progression: | Abm7 [Db7/Gm7] |
| Analysis: | IIm7 | bIIIIm7 |
| Placed at the second phrase of the first part. |

| Key: | A major |
|------|---------|
| Chord progression: | Dm7/II | | Gm7 |
| Analysis: | IIm7(13) | IIm7 |
| Corresponding lyrics: | “...Louco, o bêbado com chapeu-coco...” |

### Table 3. Examples of Songs with Augmented Sixth Chord

| Key: | C minor |
|------|---------|
| Chord progression: | D7(9) | Db7/G7(b5)/Cm7(9) |
| Analysis: | IIm7(9) | V7(9) |
| Corresponding lyrics: | “...Acorda amor, que e sua em baixo desta...” |

3.3. Augmented Sixth Chord

The harmonic structure known as subV has been increasingly used in popular music, both in the harmonization and re-harmonization of songs. The so-called subV chord has as its main characteristic the augmented sixth, which is derived from the inversion of the diminished third between the major third and the diminished fifth of the dominant chord. Hence, it may be more useful to think of it as the second inversion of the dominant chord with a lowered fifth, where its diminished third is converted to an augmented sixth. Both Schoenberg and Piston considered this an important topic, and dedicated complete chapters to it.

The repeated use of this chord may overshadow the fact that it is simply an alteration or variation of a dominant chord with a lowered fifth.

Spos gobin describes these altered chords as comprising not only the lowered II degree of the major mode (which is the fifth of the dominant chord) but other possible altered tones inserted in a variety of chords on different scale degrees. He states, “As is well known, the alteration represents the intensification of a semitone in the tension of a whole tone existing in the mode, without changing the chord function and without leaving the respective tonality. The corresponding chord is called an altered chord. Altered harmonic compounds have their origin in chromatic passing tones in different voices inside the diatonic mode. The basic alteration present in most harmonic functions is associated with the change of the II degree of the scale. Its alteration in the major mode can be done by raising or lowering it; in consequence, the intensification of the tension occurs toward the tones of the lower third of major triad, i.e., toward the I and the III scale degrees. In the minor mode, raising the II degree is not possible, thus the alteration in that mode is based exclusively by lowering the II degree and, to some extent by altering the IV degree. Consequently the intensification of the tension occurs toward the lower third of the tonic minor triad[1].”

This quotation makes clear the origin of the chord alteration. The harmonic situation is quite common and can be heard in various songs, of which three were selected.

### 3.4. Neapolitan Harmonies

The lowered II degree can often be detected in the harmonization of popular songs. It shows up most frequently in the $bII^TM$ root position form. The most common way to explain it is through its origin from the Phrygian mode, considered a modal interchange.

The shape of this structure however, may be explained by its origin, as described by Spos gobin on page 352 of the 47th Theme: “The most significant and commonly altered subdominant chord is $bII^TM$, formed by the $bII$ of the minor and the harmonic major mode, through the alteration of the chord’s root. In addition to the lowered fifth of the minor subdominant chord, the first inversion contains an altered sixth, formed between the lowered root and the third of the chord. This lowered II major triad in its first inversion is the Neapolitan sixth chord, sometimes called Neapolitan harmony. It first appeared in works of XVII century composers from the Neapolitan Opera School (A. Scarlatti, A. Stradella and others), as a Phrygian minor mode harmonic compound[1].”

Spos gobin goes on to explain the use of the seventh in...
Neapolitan harmony: “A passing tone between the $b_1sII_6$ altered tone and the dominant third gradually created a new Neapolitan harmony – the Neapolitan seventh chord ($b_1sID_7$). Combining $s$ and $b_1sII_6$ in the major and minor mode altogether shaped it. It is a major chord due to the major triad and its seventh[1].”

Indeed, the appearance of the Neapolitan chord in root position is quite peculiar: “Later, the lowered II triad in root position appeared. Originating from the Neapolitan sixth chord, it emerged in a singular way, as if it had been an inversion form the original chord[1].”

| Table 4. Examples of Songs with Neapolitan Harmonies |
|-----------------------------------------------------|
| 1. “Gema” (Gem) by Caetano Veloso |
| Key: G major |
| Chord progression: Cm F7(9) Bb Bb7/Eb7M Ab7M | Am7(11) |
| Analysis: IIm7 V7/bII/bIII V7/bVI | bVbIIb7M | Am7(11) |
| Corresponding lyrics: “...esquecer, não, me perder, não...” |
| 2. “Bronzes e cristais” (Bronzes and crystals) by Alcyr Pires Vermelho and Nazareno de Brito. |
| Key: F major |
| Chord progression: F7/Bb7/Eb7Ab7/Dbb7/Gb7M | C7/F7M |
| Analysis: V7 | V7/V7 | V7/bIIb7M | V7/I7M |
| Placed at the last phrase of the song. |

3.5. Elliptics

In linguistics, elliptics (from the Greek éllipsis, “omission”) refers to the absence of one or more words from a clause. In Spossobin’s Manual it refers to the lapse of an expected resolution. Other designations, such as deceptive cadence, deceptive resolution and irregular resolution appear in Schoenberg’s Theory of Harmony, page 136[3], and Piston’s Harmony, page 191[10]. The concepts of elliptics and irregular resolution have not been applied to the harmonic analysis of popular music. In some cases these terms were replaced by extended and consecutive dominants that deal specifically with a dominant chord resolution in which the tonic preserves the major triad but adds a minor seventh, changing it to a dominant chord (Chediak, page 266[2], and Guest, page 99 volume 1[4]). The concept of extended dominants is related to a generic jazz notion that defines a dominant chord as a preparation chord: due to its tension it can prepare or precede any chord placed a fifth below. For example, the dominant of the dominant chord (V7 – V7), a secondary dominant, involves a situation in which a dominant chord precedes another chord with the same structure and does not have the expected resolution, typically to a stable major or minor chord. According to Spossobin, the double dominant chord, as defined in the Manual, does not characterize elliptics as long as the resolution is not omitted. On the other hand, elliptics does take place in the case of consecutive dominants since the resolution chords are continuously replaced.

The notion of elliptics does not appear in Chediak and Guest, but is replaced by the deceptive resolution, the same as described by Schoenberg, (page 137): “This term is understood to mean the substitution for the expected progression, V-I”[3], and mentioned by Philip Tagg in his article Troubles with tonal terminology, page 9[8]. Guest (page 70, volume 2) describes it as follows: “The deceptive resolution occurs when the dominant chord does not lead to the predictable resolution”[4].

Spossobin explains the term on page 426 of the 56th Theme: “Literally meaning absence or omission, ellipsis is formed by replacing the expected chord with any other without delay, in the functional sequence of the first chord. Ellipsis juxtaposes two chords that have no immediate relation such as dominant and tonic, subdominant and tonic or DD and D[I].”

Harmonic progressions, understood as extended and consecutive dominants, are explained on page 430: “the expected tonic chord is replaced by the dominant seventh chord, built on the same bass note of the tonic chord, so as to create the dominant cycle, ending, in most cases, with D7 of S or SII[I].”

The use of extended dominants is one of the harmonic situations that can be called ellipsis in popular music. Sometimes the resolution to extended dominants is delayed due to the interpolation of a subdominant chord. Interpolated subdominants can appear in situations as often in elliptics as in inclinations. (See the examples of inclination above).

| Table 5. Examples of Songs with Ellipsis |
|----------------------------------------|
| 1. “Joana, a Francesa” (Joana, the French) by Chico Buarque and Francis Hime |
| Key: C major |
| Chord progression: Dm7 E | F7M | Bbm6/A7 D7/G7 |
| Analysis: IIm7/IV/7 | V7/M7 | V7 |
| Corresponding lyrics: “Treme de preguiça e de suor, já é madrugada...” |
| 2. “Chorohipoale” (Choro in his name) by Hemuto Pascoel |
| Chord progression: F7 | Eb7 | Ab7 | Db7/C7 |
| Analysis: V7 | V7/V7 | V7/V7 | V7 |
| Placed at the introduction. |
| 3. “A rá” (The frog) by João Dranto and Caetano Veloso |
| Key: F major |
| Chord progression: A7(13) A7/b13 | D7 | D7(b13) | Bbm7/C7(13) |
| Analysis: V7 | V7/V7 | V7/V7 |
| Placed at the end of the first phrase. |
| 4. “Estrada do sol” (Road to the sun) by Tom Jobim and Dolores Duran |
| Key: F major |
| Chord progression: Bbm7 Eb7 | Am7 | D7/9Abm7/Dbb7/Gm7/C7 |
| Analysis: IIm7 | V7 | Am7 | V7/V7 | V7/I7M |
| Corresponding lyrics: “...quero que você me dê a mão...” |
| 5. “Só tinha de ser com você” (It must be you) by Tom Jobim. |
| Key: F major |
| Chord progression: A7/D7/G7 | C7/F7M |
| Analysis: V7 | V7/I7M |
| Placed at the end of the first phrase. |

3.6. The Seventh Diminished Chord

The seventh diminished chord is commonly designated as a diminished chordon the VII degree of the harmonic minor scale. This chord has become, for many reasons, one of the most useful harmonic elements in popular music. As a result, its origin from the harmonic minor scale has been forgotten in various harmonic progressions and does not even appear in the chord symbol used to notate the diminished chord.
Chord symbol notation is, by and large, insufficient to represent harmonic elements. Conventionally it does not indicate the inversion as commonly used for all other chord labels, as for example, Dº would stand for Bº/D. In some harmonic progressions the chord symbol of a root position is given, though it is actually an inversion. This kind of simplification has some advantages, though it may cause misunderstandings. In any case, one should note that the same chord symbol used for root position might be used to represent an inversion of other chords, sometimes as an enharmonic equivalent.

In general, in popular music diminished chords have two different functions:

- As a dominant chord of the seventh degree, which precedes the tonic chord.
- As an element derived from the combination of altered tones.

Both can appear as auxiliary or chromatic passing chords, sometimes without the dominant function. A passing chord can be explained as follows: the bass note of a diminished chord becomes a passing tone between two other bass notes, in ascending or descending stepwise motion.

Diminished chords preceding secondary tonics can be easily seen as having dominant function because they are related to the tonic as its seventh degree.

Diminished chords, however, do not have a dominant function when resulting from some other chords in which altered notes or non-chord tones are inserted. In any case, the melodic relation prevails over the harmonic relation: melodic motion in inner voices is made by chromatic or diatonic approach notes and prevails over the harmonic relation. They are voice-led chords and are designated as approach chords having no dominant function at all, regardless of whether the root moves up or down stepwise.

On the contrary, the seventh degree diminished chord is always connected to the resolution, up one degree in root position or other intervals, depending on its inversion.

Diminished chords may link neighbouring diatonic chords by moving the bass up or down. They are known as passing diminished chords because of the chromatic passing tone in the bass. However, they can function as auxiliary chords (Iº or Vº) when they have the same bass note as the first and the fifth degrees.

In Sposobin’s Manual, diminished chords are not dealt with in one exclusive Theme (chapter). In the 22nd Theme they are explained in the context of the seventh degree of the minor scale, together with the seventh degree of the major scale, which, though built differently, has the same dominant function. The use of the VII chord of the major scale is not as widespread as that of the minor. However, the examples presented in the book are useful for both major and minor modes.

In the 57th Theme, devoted to enharmonic modulation, the diminished chord is dealt with exhaustively on page 439: “Enharmonic modulation by way of the diminished seventh chord is one of the most widespread examples of abrupt changes in tonality and a consequence of the universal possibilities inherent in this chord. This type of modulation is based on the fact that diminished chords, in terms of sonority, have only three possibilities, though they can be formed on any of the twelve pitches of the chromatic scale. Thus each of the three inversions of the seventh diminished chord can resolve to any tonality as the leading tone of T, S or D[1].”

The examples are very specific and comply with the chord resolution and in every enharmonic situation. The correct notation is consistent with the expected tonality and the prevailing key signature.

The 57th Theme deals with the diminished chord involving only the dominant function on the seventh scale degree. In other harmonic situations that include the diminished chord, the chord in question is built with non-chord tones.

The examples below demonstrate two types of diminished chords: as a seventh degree chord and as an auxiliary chord formed with auxiliary notes. Both types can feature passing chords, unlike the auxiliary chord that can never have dominant function.

**Table 6. Examples of Songs with Seventh Diminished Chords**

| Example | Chord Progression | Key |
|---------|------------------|-----|
| 1. Avarandado (Tarrakado) by Caetano Veloso | E7 [Aº] [A7M] | A major |
| 2. “Discussão” (Argument) by Tom Jobim and Vinicius de Moraes | C7 [Eº] [D7m] | C major |
| 3. “Entrudo” (Carnival parade) by Carlos Lyra | Bm7 [A#º] | B minor |
| 4. “Euseiquevoutear” (I know I will love you) by Tom Jobim and Vinicius de Moraes | C7 [Eº] [D7m] | C major |
| 5. “Feionão e bonito” (It is ugly, not beautiful) by Carlos Lyra and Gian Francesco Guiamier | Gm7 [Bº] | E flat major |
| 6. “Look to the sky” by Tom Jobim | C7 [Eº] [D7m] | C major |

3.7. Chords With Non-chord Tones

The notion of a chord as a tertian structure is crucial to understanding the methodology used in Sposobin’s Manual. Based on tertian structure, it is possible to view non-chord tones as relevant to distinguish between a chord and other types of harmonic compounds. The expression “harmonic compound” was created to translate the Russian word сосвучие, meaning notes sounding together. It is explained...
early in the introduction where the author defines both concepts. Harmonic compounds, or cocayrue, refer to non-harmonic tones or non-chord tones. Similar to the ‘non-harmonic’ tones discussed by Schoenberg, (page 309[3]) and Piston, (page 109[10]): these are also defined in the introduction but developed in later chapters. Some of them are dealt with in separate chapters, for example the delayed notes are in the 36th and 37th Themes, passing tones in the 38th, 39th and 41st Themes.

Unlike tertian chords, harmonic compounds are formed by intervals other than thirds: they are random structures that appear accidentally in the melodic-harmonic relationship. The 44th Theme defines how these structures can be shaped, rather differently than the tertian chord.

Nevertheless, the accumulation of non-chord tones can occasionally form structures in thirds and are similar to the diatonic chords without the corresponding harmonic function. Diminished chords without dominant function are included here. While their structure is actually tertian, their function does not correspond to the seventh scale degree of the harmonic minor.

There are other harmonic situations in which chords do not correspond to their apparent function, such as minor chords that become dominant chords through the insertion of an altered tone. Despite this modification they maintain their original function.

The sus4 chord can be explained in much the same way: the perfect 4th is inserted as a suspended tone, but is considered part of the chord because of its intensive use. Due to its repeated use over time, the delayed tone lost its sense of novelty. There are numerous songs containing the perfect 4th, of which a few were selected for the list below.

Table 7. Examples of Songs with Chords with Nonchord Tones

| Example                                                                 | Chord Progression          | Key   | Analysis |
|-------------------------------------------------------------------------|-----------------------------|-------|----------|
| "Aula de matemática" (Mathematics lesson) by Tom Jobim and Marinno Pinto | Gm7 Bbm C[Bm7(b5)]Bbm6     | Fmajor|          |
| Chord progression: Gm7 Bbm C [Bm7 (b5)]Bbm6                            |                              |       |          |
| Analysis: IIm7 V7 4(b9) #1V7(b5) FV7m6                                 |                              |       |          |
| Placed at the end part.                                                 |                              |       |          |
| 2. Seventh diminished chord modified: "Eusiquevoautoar" by Tom Jobim and Vinicius de Moraes | Am6 Abm6 C7M                | Cm    |          |
| Chord progression: Am6 Abm6 C7M                                        |                              |       |          |
| Analysis: VIm6 [bVIm6] F7M                                              |                              |       |          |

4. Conclusions

Harmonic analysis can be applied not only to scores of classical music, but also to aurally perceived material in any cultural tradition. Composer and theorist Paul Hindemith in his *Traditional harmony* discussed the loss of prestige which conventional harmony teaching had suffered. More recently, its rules would "have interest only for the backward-glancing and analytical student." (page iii)[11] The range of concepts studied in music schools should not be restricted to classical and more traditional types of music. The most recent discussion on musicology has pointed out that the borders separating composition and song writing, concert music and aural tradition, are not as easy to define as previously assumed.

In the second half of the 20th century a significant number of books were published with the term ‘functional harmony’ in the title. The focus of these was restricted to the harmonic functions of tonic, dominant and subdominant. Conversely, ancient treatises failed to fully describe the syntax of chord progressions but exceeded in rules about voice leading.

Brazilian authors including Francesco[12] Chediak[2] Nascimento[13] Brisolla[14] Guest[4] Lemos and A6uiar[15] Silva[16] Vicente[17] and others such as Lilja[18] Tagg[8] and Sessions[19], used the notion of functional harmony in their writings. Nevertheless, it is remarkable how ancient notions can also explain chord progressions in song writing in general and in Brazilian popular songs in particular. Such notions are based on concepts of functional harmony as well, although dealing with voice leading in detail. With respect to bossa nova style, it is possible to assert the primacy of harmony over melody, the same way as Jean-Philippe Rameau did in the 18th century.[20]

As demonstrated above, various chapters in Spossobin’s Manual thoroughly and accurately explain chord progressions such as those used in Brazilian popular songs. This manual, and other such treatises on harmony as Koechlin[21], Zamacois[5] Rimski-Korsakov[6], and Persichetti[22] can certainly be used as a scholarly tool to analyze music of the past, as well as popular song writing.

Appendix

1. Inclination:

1. “Vira a casaca” (Support another team) by Joubert de Carvalho and Gâudio Viotti

2. “João e Maria” (John and Mary) by Chico Buarque and Sivuca.

3. “Água de beber” (Drinking water) by Tom Jobim and Vinicius de Moraes

4. “Look to the sky” by Tom Jobim

5. “O bêbado e o equilibrista” (The alcoholic and the man on wire) by João Bosco and Aldir Blanc

6. “Na intimidade meu preto” by Nei Lopes
II. Major-minor system:
Major-minor system comprises the modal interchange concept:
1. “Look to the sky” by Tom Jobim
   TOM JOBIM. Wave. Los Angeles: A&M Records, 1967.
2. “O bêbado e a equilibrista” (The alcoholic and the man on wire) by João Bosco and Aldir Blanc
   ELIS REGINA. Essa mulher. Rio de Janeiro: WEA, 1977.
3. Luiza by Tom Jobim
   TOM JOBIM. Passarim. New York: Verve Records/Polygram, 1987.
4. Gatas extraordinárias (Amazing babies) by Caetano Veloso
   CASSIA ELLER. Com você no mundoficariacompleto. Rio de Janeiro: Universal Music, 2004.
III. Augmented sixth chord:
1. Luiza by Tom Jobim
   TOM JOBIM. Passarim. New York: Verve Records/Polygram, 1987.
2. “Sótinha de ser com você” (It must be you) by Tom Jobim
   ELIS REGINA. Elis & Tom. Los Angeles: Polygram, 1974.
3. “Derradeira primavera” (Ultimate springtime) by Tom Jobim and Vinicius de Moraes
   NARA LEÃO. Opinião de Nara. Rio de Janeiro: Elenco, 1964.
4. “Gema” (Gem) by Caetano Veloso
   TEREZA CRISTINA. Delicada. Rio de Janeiro: EMI Music Brasil, 2007.
5. “Bronzes e cristais” (Bronzes and crystals) by Alcyr Pires Vermelho
   MAYSA. Convide para ouvir Maysa nº2. Rio de Janeiro: RGE, 1995.
6. “Chorinho para dele” by Hermeto Pascoal
   HERMETO PASCOAL. Missa dos escravos. Rio de Janeiro: Warner, 1977.
7. “A rã” (The frog) by João Donato and Caetano Veloso
   JOÃO DONATO. Quem é quem. Rio de Janeiro: EMI, 1973.
8. Estrada do sol by Tom Jobim and Dolores Duran
   AGOSTINHO DOS SANTOS: Agostinho dos Santos. Rio de Janeiro: Polydor 262-a, 1958.
9. “Sótinha de ser com você” (It must be you) by Tom Jobim
   ELIS REGINA. Elis & Tom. Los Angeles: Polygram, 1974.
VI. Seventh diminished chords:
1. Avarandado by Caetano Veloso
   CAETANO VELOSO. Domingo. Rio de Janeiro: Philips, 1967.
2. Discussão by Tom Jobim and Vinicius de Moraes
   JOÃO GILBERTO. O amor o sorriso e a flor. Rio de Janeiro: Odeon, 1960.
3. Entrudo by Carlos Lyra
   ELIS REGINA. Elis especial. Rio de Janeiro: Philips, 1979.
4. Euséiquevouteamar by Tom Jobim and Vinicius de Moraes
   TOM JOBIM. Novo Millenium. Rio de Janeiro: Universal, 2005.
5. “Feionão é bonito” (It is ugly, not beautiful) by Carlos Lyra and Gianfrancesco Guarnieri
   CARLOS LYRA. Carlos Lyra. Rio de Janeiro: Continental, 1974.
6. “Look to the sky” by Tom Jobim
   TOM JOBIM. Wave. Los Angeles: A&M Records, 1967.
VII. Chords with nonchord tones:
1. “Aula de matemática” de Tom Jobim e Marino Pinto
   TOM JOBIM & MIUCHA. O essencial de Miucha e Tom. Rio de Janeiro: RCA, 1979.
2. “Euséiquevouteamar” by Tom Jobim and Vinicius de Moraes
   TOM JOBIM. Novo Millenium. Rio de Janeiro: Universal, 2005.
3. “Joana, a Francesa” (Joana, the French) by Chico Buarque and Francis Hime
   CHICO BUARQUE. A Arte De Chico Buarque. Rio de Janeiro: Universal Music, 2004.
4. Hermetopascal
   HERMETO PASCOAL. Missa dos escravos. Rio de Janeiro: Warner, 1977.
5. “A rã” (The frog) by João Donato and Caetano Veloso
   JOÃO DONATO. Quem é quem. Rio de Janeiro: EMI, 1973.
6. Estrada do sol by Tom Jobim and Dolores Duran
   AGOSTINHO DOS SANTOS: Agostinho dos Santos. Rio de Janeiro: Polydor 262-a, 1958.
7. “Sótinha de ser com você” (It must be you) by Tom Jobim
   ELIS REGINA. Elis & Tom. Los Angeles: Polygram, 1974.
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