

Introducing music students to harmony – an alternative method

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Abstract

If teaching and learning harmony could rely less on prescriptive rules and more on the music that students themselves play, an alternative teaching method for harmony beginners may become possible. This approach yields a specific kind of knowledge, namely non-propositional knowledge or knowledge acquired by direct experience. After considering the function of thinking and doing in experiential learning, the article shows how the teaching of harmony in the twentieth century steadily moved away from the legacy of Rameau, the founder of harmony as a discipline in the eighteenth century. By using as point of departure melodic motifs in the piano music that students play, this article demonstrates the integration of horizontal and vertical musical features when introducing music students to the study of harmony. Furthermore, it shows how a linear approach could eventually lead through two-part counterpoint to the writing of four-part harmony, demonstrated at the end of the article. This proposed method provides a foundation for acquiring basic music-writing skills that are less concerned with music theory as a regulatory discipline and more with music as a creative art.

Key-words: teaching method, beginner harmony, counterpoint, melodic motifs, melodic patterns, piano music.

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Harmony is often taught by following rules which prescribe what is ‘allowed’ and what is not. These rules form part of a large body of systematised technical knowledge concerning musical structure. Although systematisation and breaking up a field of knowledge into manageable units are necessary to get a grip on a subject such as music theory, one should be aware of the implications of such a strategy on teaching and learning to write harmony. For example, the study of harmony normally starts *after*

students have mastered the rudiments of music theory. But this article shows that it is possible to introduce the basic principles of harmony much earlier in tandem with learning the rudiments of music theory.

The reliance on rules when writing harmony can be traced back to the eighteenth century when Jean-Philippe Rameau (in Gossett 1971:xxxv) wrote as follows in the preface to his *Traité de l'harmonie réduite à ses principes naturels* (1722):

Music is a science which should have definite rules; these rules should be drawn from an evident principle; and this principle cannot really be known to us without the aid of mathematics. Notwithstanding all the experience I may have acquired in music from being associated with it for so long, I must confess that only with the aid of mathematics did my ideas become clear and did light replace a certain obscurity of which I was unaware before.

Rameau's idea was to elevate the study of harmony to the level of the sciences because of their higher status in the eighteenth century, following the Cartesian focus on rational thinking and more specifically on mathematics as a decoder of nature (Christensen 1993:90, 103). But in the nineteenth century the French educator Jean-Joseph Jacotot shed new light on the concept of the intellectual subject when he read Descartes's well-known dictum 'I think, therefore I am' (*Cogito, ergo sum*) in reverse. According to Jacques Rancière, Jacotot's 'I am a man, therefore I think' became one of the principles of his teaching, which was based on the idea that '[t]hought is not an attribute of the thinking substance; it is an attribute of *humanity*' (1991:35–36). [Algerian-born French philosopher Rancière (1991) wrote a fascinating report on the life and work of Jacotot, who was 19 years old in 1789, the year the French Revolution started. The book was originally published in French in 1987 under the title *Le Maître ignorant: Cinq leçons sur l'émancipation intellectuelle*.]¹

For Jacotot the 'thinking subject' is not a person who denies the value of the senses and he even went so far as to state that '[t]he virtue of our intelligence is less in knowing than in doing' (Rancière 1991:54, 65). With regard to Descartes's distrust of

the senses when he concluded that solid wax and melted wax are the same and that this conclusion is arrived at through knowledge and not through the senses, Jacotot commented as follows: ‘I want to look and I see. I want to listen and I hear. I want to touch and my arm reaches out, wanders along the surfaces of objects or penetrates into their interior’ (p. 54).

This integration of thinking and doing, of theory and practice is especially important for the teaching of beginner harmony, which has traditionally relied more on the development of knowledge and cognitive skills than on the expression of musical ideas as a form of art.

1. Thinking and doing

Jacotot developed his new approach to teaching, later referred to as ‘universal teaching’, when he was appointed to teach French at the University of Louvain in 1818. As a professor who did not know Flemish he had to face a group of students of whom a good number did not speak French (Rancière 1991:1). Until then he had believed that the task of the professor was ‘to transmit his knowledge to his students’ (p. 2), but this new teaching situation forced him to develop another approach. He used Fénelon’s *Les aventures de Télémaque* as a basis for developing a learning strategy in which individuals learn something without having it explained to them beforehand – they learned themselves through observation and comparison of the material at hand (p. 35). Joseph Jacotot referred to his ‘natural method of the human mind’ as ‘the student’s method’ (p. 124).²

Just as Jacotot’s students learned French by reading Fénelon’s *Les aventures de Télémaque*, this proposed method for teaching harmony beginners take the music that students themselves play as point of departure. They become acquainted with the basic principles of music writing through direct experience instead of relying on prescriptive rules and systematised knowledge that is known as the grammar of music.

In her article on ‘Posthumanist performativity: Toward an understanding of how matter comes to matter’ Karen Barad refers to Nietzsche’s warning against ‘the mistaken tendency to take grammar too seriously: allowing linguistic structure to shape or determine our understanding of the world’. For her the answer lies in performativity, focusing on practices, doings and actions, because it ‘is precisely a contestation of the excessive power granted to language to determine what is real’ (2003:802). She believes that mediation of experience or the material world has offered ‘precious little guidance about how to proceed’ toward ‘a more thoroughgoing accounting of the empirical world’ (p. 823).

In her contribution to the theory of performativity Barad moves beyond its traditional linguistic confines to focus more on agency, following a materialist, naturalist and post-humanist approach that ‘incorporates important material and discursive, social and scientific, human and nonhuman, and natural and cultural factors’ (p. 808).³ She regards understanding ‘how matter matters’ as vitally important for her agential realist approach, allowing ‘matter its due as an active participant in the world’s becoming’ (p. 803). However, ‘matter does not refer to a fixed substance; rather, *matter is substance in its intra-active becoming – not a thing, but a doing, a congealing of agency*’ (p. 822, author’s italics). Practices of ‘knowing and being are not isolatable, but rather they are mutually implicated’ (p. 829).

Certain elements common to the two distinctive sources mentioned above (Jacotot, dealing with nineteenth-century students learning through discovering, and Barad, who promotes a performative approach to understanding in the twenty-first century) represent basic teaching principles on which the proposed method for teaching harmony to beginners is based, namely that knowledge proceeds from the known to the unknown, and from concrete experiences to abstract thinking. More specifically the two approaches demonstrate the reliance on direct experience of the arts product itself (Jacotot’s students learned a foreign language without first being taught its grammar) and the importance of doing in the act of understanding. According to the method for beginner harmony proposed here, students are first actively involved in the

identification of melodic motifs in the music that they themselves play and then, understanding the various implications of their performative effects, students are guided in the development of skills in the writing of two-part counterpoint and finally four-part harmony.

2. Experiential learning

When the music that students themselves play is taken as point of departure in the teaching of beginner harmony, not only are the basic principles of teaching applied (known to unknown and concrete experiences to abstract thinking), but it also provides an example of experiential learning. In 1984 David Kolb defined experiential learning as ‘the process whereby knowledge is created through the transformation of experience’ (in Kolb and Kolb 2013:236). Because of the limited scope of the topic only relevant aspects from the vast field of experiential learning will be mentioned here.

In their article on meta-cognitive aspects of experiential learning Kolb and Kolb (2013:236) mention that research on experiential learning theory (ELT) ‘has increased dramatically in recent years’. They acknowledge the important work done by earlier ‘foundational theorists of experiential learning – William James, John Dewey, Kurt Lewin, Carl Rogers, and Paulo Freire – who placed conscious intentional action based on subjective experience at the center of the learning process’ (p. 235). Kolb and Kolb specifically refer to James’s *Essays in radical empiricism* of 1912 in which ‘the duality between the mind (thought) and physical world (thing) is resolved because both are experienced but with different characteristics’ (p. 237).

Kolb and Kolb regard experiential learning as ‘a process of constructing knowledge that involves a creative tension among ... four learning modes’, namely concrete experience, abstract conceptualization, reflective observation and active experimentation (p. 236). It is not just the concrete experience that is experiential – ‘all modes of the learning cycle... are included in experiences’ (p. 238). In the field of music the proposed method for harmony beginners also follows a similar kind of process where *concrete* melodic motifs in the music that students *themselves play* are

first identified. When students translate these motifs into *abstract* numerical configurations they are making sense of information gathered and develop a capacity for *reflection*. Experiencing, abstract conceptualizing and reflecting converge in the writing of four-part harmony when they *experiment in the application of knowledge* in a musical environment.

By following this process of experiential learning, the roles of theory and practice are reversed. Instead of *applying* prescribed theoretical knowledge (the route that is traditionally followed in the teaching of harmony), it is *doing* or ‘knowing how to’ that becomes a route to knowledge. Where propositional knowledge, that is the knowledge of facts and truths or ‘knowing that’, is the primary concern of epistemology, this proposed method demonstrates propositional knowledge as a result and not as a point of departure. It demonstrates a kind of knowledge that starts from the ‘know how’ to the ‘know that’. According to Edward Craig the ‘knowing how to’ epistemology is ‘under-researched at present’ (2005, section 3).

‘Knowledge by acquaintance, or by direct awareness’ is known as non-propositional knowledge (Paul Moser in Audi, 1995:273). Considering a phenomenon or phenomena ‘before reflection begins’ (Audi, 1995:665), may denote a phenomenological strategy when combining knowledge and skill in the introduction of harmony. According to Joseph Kockelmans, ‘phenomenology is an attempt to give a direct description of our experience as it is in itself without taking into account its psychological origin and its causal explanation’ (in Audi 1995:665).

3. Rameau’s legacy questioned

In the eighteenth century, but also to a certain extent for the ensuing centuries, Rameau’s contribution towards the development of music theory as a discipline cannot be underestimated – pitch structures systematised as scales, intervals and vertical structures (chords) became a major concern in teaching music theory. More specifically, for Rameau ‘knowledge of harmony is sufficient for a complete understanding of all the properties of music’ (in Gossett 1971:3) and his ‘essential goal was to validate chords as

primary musical constructs' (Christensen 1993:28). But the focus on harmony and its separation from the study of melody and rhythm had a negative effect on the study of melody in the eighteenth century (Dahlhaus 1989:62).

In the twentieth century the overemphasis on theoretical abstractions and the separation of theory and practice came to be questioned because of its stifling impact on imagination and creativity (e.g. Smith and Renouf, introduction, p. 1965). In the second part of the previous century, a large number of harmony books that use music from the comprehensive music repertoire as their primary source was published. These sought to address what Yizhak Sadai, in the introduction to his *Harmony in its systemic and phenomenological aspects* describes as 'the gap and incompatibility between harmony as taught at the academies ("academic harmony") and harmony as revealed in actual composition' (1980:XXIII).

4. Beginner harmony as experiential learning

In this article the proposed method to introduce students to the study of harmony takes as point of departure actual compositions that they themselves play. Personal experience has shown that many students of orchestral instruments either begin their studies by learning to play the piano, or are able to play the easy piano pieces that are used for demonstration purposes in this article. Therefore, this method for introducing students to harmony is accessible to many music students. Not only do they develop their inner hearing, they also experience melodic and harmonic procedures directly in a tactile manner. By relying on these original models, students can actually hear the sound and acquire an aural image of the procedures which they will use in their harmony exercises, their exercises thus becoming more than theory or notes on paper.

According to the proposed teaching method harmony beginners imitate the style of existing, original compositions. Imitation plays an important role in the 'how to' category of learning, in acquiring new abilities (Craig 2005). In his report on Jacotot's teaching through active engagement with the text, Rancière links inventing with

remembering. ‘We will be content to do as creators do: like Racine, who memorized, translated, repeated, and imitated Euripides; Bossuet, who did the same with Tertullian ...[and] Haydn, who recreated six of Bach’s sonatas over and over’ (1991:25–26).

In the original models students become acquainted with the integration of melody, harmony and rhythm in a direct manner. To a large extent melody and rhythm are the features that characterise music as a temporal art, setting it apart from the plastic arts. A greater reliance on melody and rhythm can also develop listening skills because it helps students to follow the music as it unfolds in time – it promotes understanding and eventually enhances aesthetic experience. The proposed method for teaching harmony to beginners does not rely on prescribed rules and systematised knowledge but takes as departure the shapes, contours and combination of sounds in the music that they play themselves, as will be explained in the rest of the article.

For teaching purposes the integration of melody and rhythm can best be studied in the manageable format of melodic motifs. Relying on melodic motifs in the music that many beginners play, provides a basis for a methodology that integrates the melodic, rhythmic, contrapuntal and harmonic features of musical texture. Melodic motifs taken from the music itself,⁴ also exemplify the interaction between horizontal and vertical musical features within a rhythmical environment.⁵

In spite of the fact that numerous harmony books rely heavily on original models from the music repertoire, I have not come across a teaching method for the beginner that is based on melodic *motifs* or melodic note patterns. (See, for example, Aldwell and Schachter [1989] and Clendinning and Marvin [2005].) A number of books use melody or counterpoint as point of departure in teaching and learning harmony. As early as 1965 Edwin Smith and David Renouf *started* five of the eight chapters in their book on ‘artistic creativity in education’ (introduction) with a section on melody, followed by a section on harmony. Douglass Green’s *Harmony through counterpoint* (1970) begins with counterpoint and the study of melody rather than the study of chords. However, the potential of the melodic motif to suggest a chord progression is not developed in either of these books and the examples do not come from the music that beginners play. Although

Sadai (1980:7–11) refers to three types of basic melodic patterns, namely formational patterns (leaps), connective patterns (caused by passing notes) and prolongational patterns (caused by auxiliary notes), his approach remains basically harmonically driven, that is, relying on chords as the main focus. The title of Charles Horton and Lawrence Ritchey's book is *Harmony through melody* (2000) but the vertical aspect of musical texture is still predominant and the authors do not develop a method to guide the beginner by means of melodic motifs.

5. A melodically driven approach to teaching beginner harmony

The method proposed here is melodically driven because it uses two-note melodic motifs in the music that students themselves play as point of departure to demonstrate how a linear approach may lead through two-part counterpoint to the writing of four-part harmony. When generic melodic patterns (see Sadai above) are experienced directly as melodic motifs in the music that students play, they may also develop awareness of metre and of weak and strong beats. A basic principle of rhythm, namely the distinction between a weak and a strong impulse, is therefore introduced right from the beginning. A melodic motif normally displays certain unique rhythmic and melodic features, but a melodic pattern constitutes the basic framework of the melodic motif when it is reduced to its essential characteristics. Therefore, in order to concentrate on the potential of a generic melodic pattern to appear in various artistic shapes, the method proposed here deals with melodic patterns after students have experienced how they occur as original melodic motifs in the music that they themselves play (see demonstration below).

Short melodic patterns of various shapes also play a prominent role in developing skills other than music-writing skills. For example, Steve Larson (1993:80) believes that

[t]hese patterns provide shapes that are simple and directed. ... The organizing power of these simple shapes also makes them ideal sources for improvisation. They are easy to embellish because they provide a secure path that is easy to hear and return to. And they teach embellishment by example because they themselves are simple embellishments.

If students who begin the study of harmony understand the potential of melodic patterns to develop their music-writing skills, they have been provided with suitable information, first, to add another melodic pattern against a given pattern, and at a later stage, to add a suitable third and a fourth pattern to eventually form a four-part harmonic texture (see the demonstration below). Although this method requires the figuring of vertical chordal structures only at a later stage (when the student writes four-part harmony exercises), it is shown here at the beginning to help the teacher who is used to the traditional method, but also to facilitate the link between the horizontal (melodic) and the vertical (chordal) approach.

This proposed method does not require a harmony beginner to know vertical structures (chords), but they must know the rudiments of music theory, more specifically the intervals of the major and minor scale. As the students progress they learn how intervals combine to form chords, they learn about cadences, secondary dominants, chromatic harmony and the substitution of a primary triad by its functionally-related secondary triad.⁶ Because this article focuses on the initial stage of harmony tuition, these advanced issues are only briefly touched upon (see point 5.3) in order to show that the proposed method has the potential to guide the student to an advanced level. But advanced harmony can only be dealt with properly in a full-length study.

The first step in the method set out below is to identify significant two-note melodic patterns in the music that students play. The second step shows how another melodic pattern may combine with the identified melodic pattern to form a two-part skeletal framework.⁷ The identification of significant two-note melodic patterns relies on the basic distinction between leaps and stepwise movement in a melodic line. In the latter case, the notes are represented by Arabic numerals that refer to steps of the scale. For example, the pattern described as 7-8 refers to a melodic movement that links step 7 with step 8 (e.g. B-C in C major). By working with numbers, the melodic patterns can be used in any key.

The basic distinction between leaps and stepwise movement results in two categories that could respectively represent chord prolongation and chord change when they are linked with a strong–weak and a weak–strong rhythmical movement respectively. This approach could help the harmony beginner with the choice of chords, one of the basic problems of writing harmony. This means that right from the beginning students learn how the horizontal and vertical aspects of musical texture interact. A horizontal or linear approach to the study of musical texture eventually leads to *understanding* the movement from chord to chord and to the *writing* of chord progressions. As soon as students understand the nature and implications of basic melodic patterns for chord choice, and as soon as they are able to apply it in writing, non-chord notes and leaps on chord notes can be introduced to vary the skeletal structures in a creative way.

For many students the first contact with formal music tuition is through learning to play the piano. Therefore, the identification of melodic patterns could be part of the piano lesson in order to develop their inner hearing by forming aural images of written structures. When introducing the student to the basic principles of harmony it is easiest to start with leaps in the melodic line because leaps are conspicuous and they are clear indicators of the underlying chordal structure. A leap most often represents the prolongation of a chord, a prominent feature of instrumental music. Chord prolongation most often represents a movement from a strong impulse to a weak impulse.⁸ In the examples below, melodic patterns that represent chord prolongation are indicated graphically: diagonal lines that cross each other show the interchange of notes in the pattern of the leap of a third (or its inversion the sixth) and slurs indicate leaps of a fifth and its inversion, the leap of a fourth.

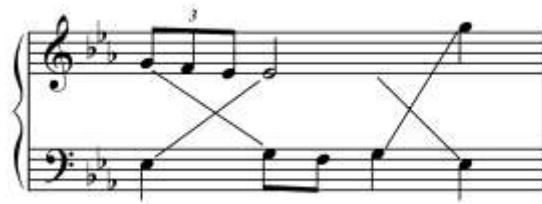
5.1 Melodic patterns on a strong–weak subdivision of the bar or beat

When introducing music students to the study of harmony, the method proposed here focuses on the *size* of the leap and not whether it is major or minor. Augmented and diminished intervals are normally introduced at a later stage. (The first six melodic

patterns that Sadai describes as formational patterns are the ascending and descending leaps of the major third, minor third, perfect fourth, perfect fifth, minor sixth and major sixth [1980:9].)

5.1.1 *The leap of a third (or its inversion, the sixth)*

For the beginner, the leap of a third (major or minor) which connects a strong beat with a weak beat (or subdivisions of the beat) may represent the lower third of a triad (major or minor respectively). In an exercise the mirror image of the leap may be added as a second part to this melodic pattern to form a two-part skeletal framework that represents the root position of a chord followed by its first inversion or vice versa.



Example 1a. The leap of a third: J.S. Bach, *Marche in E flat major (Klavierbüchlein für Anna Magdalena Bach, BWV Anhang 127)*, bar 4

(YouTube: <http://www.youtube.com/watch?v=KoSikJLuKZg> at 8".)

The leap of a third, E^b–G, is played by the left hand. The mirror pattern played by the right hand, G–E^b, is filled up by a passing note (F) and the E^b is repeated to form a melodic motif. The motif, therefore, consists of four notes but the melodic pattern consists of two notes (G–E^b).

Beginners need not figure the chords but to show the use of this method even for the advanced student, the two-part framework in Example 1a suggests the chord progression of I–I^b–I^b–I in E^b major. The Roman numeral refers to the chord on the

first degree of the scale. (The distinction between the figuring of major, minor, diminished and augmented triads is introduced later.) A small letter after the Roman numeral indicates the inversion of the specific chord, for example, Ib denotes the first inversion of the tonic triad.⁹



Example 1b. Handel, *Prelude in G major*, opening

(YouTube: http://www.youtube.com/watch?v=ov-iEYa_7mY at 19".)

A passing note can fill up the interval of a third (F in the right hand of bar 4 in Example 1a) and escape notes can be used as further ornamentation (C and B^b in the right hand of bar 1 in Example 1b).



Example 1c. Beethoven, Variation 5 on *Nel cor più non mi sento*, opening

(YouTube: <http://www.youtube.com/watch?v=acHfrOPs3LY> at 2' 58".)

Because the leap of a sixth is the inversion of the third, it can also be regarded as representing the lower third of a triad. The interchange of G and B is marked in the left hand of Example 1c. The sixth (G–B) is here filled in with the missing fifth of the triad

(D at the bottom). The pattern played by the left hand is known as the horn fifth pattern because it is often played by the French horns. The perfect fifth against the passing note (A), that connects B (the third on G) with G (the sixth on B), appears in the middle of the bar. Later on the resultant chord progression could be figured as I–V–I_b. The third part that decorates the skeletal framework at the top consists of passing notes that fill, firstly, the outline [perfect fifth] of the tonic triad, secondly, the diminished fifth of the dominant seventh chord and finally, the lower third of the tonic chord.)



Example 1d. Haydn, *Sonata in C major* Hob. 50, third movement, opening

(YouTube: <http://www.youtube.com/watch?v=StzNIJSHVRc>.)

When the leap of a third is filled in with a passing note, it creates a stepwise three-note pattern that can help students to write the passing second inversion in four-part harmony at a later stage. In the latter instance, this three-note pattern would suggest the prolongation of the tonic chord (representing degrees 1-2-3 / 3-2-1) or the subdominant chord (representing degrees 4-5-6 / 6-5-4). Therefore, knowledge of melodic patterns could form the basis for the development of skills in four-part writing. In Example 1d, bar 4, the one middle voice remains stationary (a repeated G forms pattern 5-5-5), while the other voice moves through a lower auxiliary (neighbouring) tone (C–B–C as melodic pattern 8-7-8). When this progression is written melodically, the correct notes will be doubled and, as a controlling mechanism, chords can be figured later on.¹⁰

Later on the *descending* stepwise three-note melodic pattern may represent the chord progression known as the cadential second inversion when it appears at the end of a phrase. This progression foregrounds chord V because the second inversion of chord I with step 5 in the bass is the *first* chord (see Example 7b).

5.1.2 *The leap of a fifth (or its inversion, the fourth)*

Against the leap of a fifth which connects a strong with a weak beat or subdivision of the beat (marked by a slur), the missing third of the triad can be added to form a two-part framework.



Example 2a. Mozart, *Allegro* K 3, bars 7–8¹

(YouTube: http://www.youtube.com/watch?v=eW_tLdMLKBk at 8".)

In Example 2a the point of a pointed bracket shows the third of the chord in the second part. The A played by the left hand fills in the melodic perfect fifth (melodic pattern C–F) played by the right hand to form the vertical chord F–A–C. On the next beat the G played by the left hand fills in the diminished fifth (E–B^b) played by the right hand.



Example 2b. J.S. Bach, *Two-part Invention* No. 15, bar 1

(YouTube: <http://www.youtube.com/watch?v=yCWKroXdJIA> at 10".)

The missing third of a chord could also be added against the inversion of the fifth, which is the fourth, marked with a broken slur in Example 2b. Here the D played by the left hand fills in the outline of the tonic triad B–D–F# (the perfect fourth F#–B is the inversion of the perfect fifth that constitutes the outline of the triad).

5.1.3 *Other intervals*

The two remaining intervals not dealt with thus far are the interval of a second and its inversion, the seventh. Analogous to the leap of a fifth, the leap of a seventh which connects a strong with a weak beat or subdivisions of the beat, can be regarded as the outline of a seventh chord (quartad). The second part to be added can provide the missing third and/or fifth, the same procedure that is followed when filling up the leap of a fifth, as explained above.

Harmony beginners can treat melodic patterns that consist of stepwise movement either as non-chord notes or as chord notes that represent a change of chord (see Examples 3 to 6 for note-patterns that represent change of chord).

5.2 Melodic patterns on a weak–strong subdivision of the bar or beat

In this category the easiest melodic pattern to begin with is the *ascending* semitone 7-8, because the movement from leading note to tonic is easily recognised. Instead of learning a rule that says the leading note must rise to the tonic, students experience the 7-8 note-pattern as a musical unit in the pieces they play.¹¹ Pattern 7-8 appears in what is most often known as the perfect (or in American terminology as the authentic) cadence V–I.

5.2.1 The ascending semitone

A variety of melodic patterns may be added to the 7-8 pattern, namely 5-3, 4-3, 5-1, 2-1, 2-3, creating various kinds of two-part frameworks in the writing of two-part counterpoint.¹² Although these frameworks represent V–I in more advanced harmony (see Example 4), beginners do not have to figure the chords. As these two-part frameworks are invertible, students learn to write basic invertible counterpoint from the beginning without having to study the traditional rules for invertible counterpoint. The following example also shows the potential of melodic patterns to suggest chord-progressions when writing four-part harmony later on.

The image shows a musical score for two staves. The top staff is in treble clef and the bottom staff is in bass clef. The key signature has one sharp (F#). The melody in the treble clef consists of the notes G4, A4, B4, C5, D5, E5, F#5, and G5. The bass line in the bass clef consists of the notes G3, A3, B3, C4, D4, E4, F#4, and G4. There are fingerings indicated: '2 1' and '5 1' under the bass line, and '4 3' under the treble line. There are also accents (>) over the B3 and F#4 notes in the bass line.

Example 3a. Gurlitt, *Under the linden tree* Op. 74, No. 12, bars 4²–8¹

(YouTube: <http://www.youtube.com/watch?v=ML-n3EAvgNw> at 05".)

Example 3a shows how two patterns combine to form a four-part V⁷–I chord progression. Here pattern 7-8 combines with pattern 4-3 to form a two-part skeletal

framework at the top of the V^7-I progression. The bottom structure consists of another two-part skeletal framework, namely 2-1 combined with 5-1, the latter constituting the root notes of V^7-I .



Example 3b. Mozart, *Minuet in F major*, KV 5, bars 13–14

(YouTube: <http://www.youtube.com/watch?v=hdGdOHQAcGE&NR=1&feature=endscreen> at 21”).)

Example 3b shows that the principle of weak beat – strong beat can be extended to weak *bar* – strong *bar* when the skeletal pattern 7-8 (left hand) and 4-3 (right hand) stretches over two bars. In more advanced harmony 7-8 plus 4-3 can represent the progression VII-I or VII^7-I instead of V^7-I , with chord VII functioning as a dominant chord. A new melodic note pattern associated with VII^7-I , namely 6-5, is introduced by the second note in each bar (D–C in F major).

Most of the melodic patterns discussed under point 5.2.1 represent a V–I progression. When the patterns are used in reverse order, they represent what is later on learned as the chord progression I–V, used in what is known as the imperfect cadence (British terminology) or the half-cadence (American terminology). The interrupted cadence (American: deceptive cadence) can also be introduced by replacing pattern 5-1 in the bass with 5-6 against melodic patterns 7-8, 2-1 and 4-3.¹³ See the note patterns of the V–VI progression in Example 7b (bars 2-3).

5.2.2 The descending semitone

When introducing beginners to the writing of harmony, the proposed method regards the descending semitone as degrees 4-3 in the major key, representing the chord progression V^7-I . In this case melodic patterns which can be used against pattern 4-3 to form a two-part framework are patterns 7-8 (see Examples 3a and b), 5-1 and 2-1 (see Example 3a).

What is conspicuous in the method set out so far is the absence of the subdominant triad and the plagal cadence. While the plagal cadence is far less common than the perfect and imperfect cadences, the subdominant triad often appears as an extension of the tonic triad (as in $I-IVc-I$) or as an approach chord to dominant harmony (see chords marked 'x' in Example 7b), either in the perfect cadence or the imperfect cadence.

5.3 More advanced applications

The melodic patterns on which the proposed method is based, can also function on a more advanced level of learning to write four-part harmony. To continue with the basic melodic patterns of the $V-I$ progression set out in the previous section, more advanced variants of these melodic patterns will be considered first.

5.3.1 Melodic patterns on a weak-strong subdivision of the bar or beat

The semitone, either as the ascending 7-8 pattern or the descending 4-3 pattern in major keys, is the point of departure of this method for the harmony beginner. But the ascending semitone may also represent pattern 2-3 in a minor key, suggesting a $V-I$ progression as well. For an example of 2-3 in two-part writing see D and F in Example 4 and in four-part writing see 2-3 at D in the left hand of Example 5.

The descending *whole tone* representing pattern 4-3 could also suggest a V^7-I progression in a minor key. Depending on the ability of the student, the fact that pattern

4-3 in the minor key constitutes a *whole tone* can either be taught concurrently with the descending semitone or it can be taught later on.

Example 4. Two-part frameworks suggesting secondary dominants

J.S. Bach, *Minuet in C minor*, (*Klavierbüchlein für Anna Magdalena Bach*, BWV Anhang 121), bars 17–24

(YouTube: <http://www.youtube.com/watch?v=DW9vBLkxi4c> at 51".)

For an example of 4-3 in *two-part* writing in a minor key, see Example 4 at G and for an example in *four-part* writing in a minor key, see the left hand of Example 6.

The *descending whole tone* could also be a 2-1 pattern in two-part counterpoint and later on in four-part harmony. A melodic pattern associated with V-I, for example 7-8, 4-3 or 5-1, may be used in the second part (C and I in Example 4). In four-part harmony, as a segment of the 3-2-1 pattern, it could form the passing second inversion of the dominant triad (see Example 1d) or the passing second inversion of the dominant seventh chord. In the latter case, the progressions at A, B and C in Example 5 are figured as $Ib-V^7c-I$ in the keys of C major, F major and D minor respectively.

The melodic patterns that form the basis of this method for the harmony beginner also help to introduce the concept of secondary dominants. In the two-part counterpoint of Example 4, melodic patterns that do not belong to the home key (C minor) appear in

brackets between the two staves. If the pattern does not represent a modulation (by remaining in this new key for a while), it is figured as a secondary dominant in the home key. For example, the pattern marked A in Example 4 will then represent $V^{7d}/VII\downarrow-VII\downarrow$ in C minor.¹⁴ This example also shows exceptions of the weak–strong principle which is normally associated with the V–I progression when teaching beginners. (Example 5 shows secondary dominants in four-part harmony in the progressions marked A, B and C, all consisting of the melodic patterns discussed in this article.)

On a more advanced level, the ascending semitone could also be regarded as a raised 4-5 in chromatic harmony, a melodic pattern that represents an augmented sixth chord and its resolution.¹⁵ In two-part counterpoint the bracket at H in Example 4 shows degrees 6-5, the traditional bass line of this progression, in the left-hand part.¹⁶ When the third and fourth note patterns are added to the skeletal framework (raised 4-5 and lowered 6-5), the result is the specific structure of either the Italian, French or German augmented sixth chord.

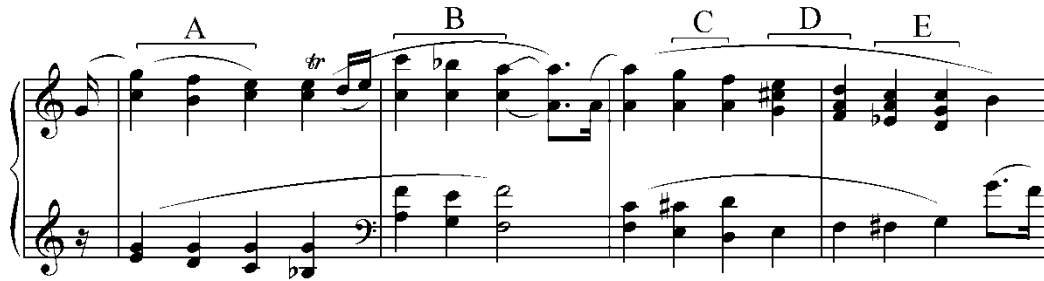
The following examples will show how two-part melodic frameworks can be expanded to four-part harmony by thinking and working in a horizontal, melodic manner.

5.3.2 Melodic patterns on a strong–weak subdivision of the bar or beat

On an advanced level, the harmony student may learn that the leap of a third could also represent the upper third and not only the lower third of a triad, as Example 1 shows. The leap of a minor third, for example E–G, could also suggest a major triad C–E–G.

5.3.2.1 The minor third as upper third of a major triad

Example 5 shows the interval of a minor third that represents the upper third of a major triad at the progressions marked A and B.



Example 5. The minor third as upper third of the major triad (at A, B)

Beethoven, *Sonata No. 10* Op. 14, No. 2, second movement, bars 9–12

(YouTube: <http://www.youtube.com/watch?v=-k189Yb8I70> at 26".)

The progression at A shows G–(F)–E (5-4-3) in the upper part as representing the upper third of the tonic triad in C major. A four-part texture is created by E–D–C in the lowest line (pattern 3-2-1) moving parallel to pattern 5-4-3 at the top, while the other two voices move according to the passing second inversion progression through 8-7-8 and 5-5-5. The result is a prolongation of the tonic chord, more specifically the progression $Ib-V^7c-I$. Here the melodic pattern 5-4-3 replaces 1-2-3 in the passing second inversion of the dominant triad. The progression at B shows a similar prolongation of the subdominant chord with the note patterns of A being transposed from C to F major. The middle chord is figured as a secondary dominant, that is $IVb-V^7c/IV-IV$.

At C, D and E the first chord of each progression is a secondary dominant, more specifically a dominant (function) in D minor, that is V^7c and then $VIIb$ at C and D respectively. At E VII^7 also functions as a secondary dominant. The new note pattern which is added to (4-3), (2-1) and (7-8) is (6-5) instead of the 5-5 of the ordinary V^7-I . (The brackets show that the specific note pattern appears in a secondary key.)

How does one know whether the minor third represents the upper third of the major triad or the lower third of a minor triad? When the third is filled up according to

the key signature (e.g. E–F–G in C major) and the semitone lies *below* the whole tone, it represents the upper third in the major triad (C–E–G). If the key in which E–G appears has an F# then the semitone lies *above* the whole tone (E–F#–G). E–G would then represent the lower third of the minor triad (E–G–B).

5.3.2.2 The major third as upper third of a minor triad

On an advanced level, a leap of a major third could also be regarded as representing the upper third of a minor triad instead of representing the lower third of a major triad.



Example 6. The major third as upper third of the minor triad

Tchaikovsky, *Chanson Triste* Op. 40, No. 2, opening

(YouTube: <http://www.youtube.com/watch?v=P3Hhr4IE6Wo>.)

In Example 6 the falling major third D–B^b, 5-3 in the right hand, is the upper third of the tonic triad of G minor. The interval is also decorated as 5-4-3 in the inner texture of the left hand. It is accompanied by a lower parallel moving 3-2-1 pattern, while the 8-7-8 and the repeated D (5-5) in the right hand part complete the Ib–V⁷c–I passing progression.

The last two bars of Example 5 also show the filled up descending interval of a third as a more advanced treatment of the 5-3 pattern that represent V–I. At the

beginning of bar 11 the top line (A–G–F) is 5-4-3 in the secondary key of D minor and in bar 12 the top line (D–C–C–B) is 5-4-4-3 in the secondary key of G major, the dominant of the home key, C major. (The top note C on the third beat is a suspension.) In both cases the dominant of the secondary key is introduced as the middle of the three chords, a substitute for the dominant chord being used as the first chord. (The progression in bar 11³–12¹ is an ordinary passing progression, namely I–VIIb–1b in D minor. Chord VII acts here as a substitute for dominant harmony within the mirrored pattern of D–F, F–D in the outer parts.)

6. Application of the proposed method

The two-note melodic frameworks in the music that students themselves play, serve as a guide to the writing of two-part counterpoint and four-part harmony for beginners. Example 7a requires the student to complete a two-part piece and provide articulation and dynamic indications. The sections with large note-heads are given and I have added the notes with small heads according to the method explained above.

The image shows a musical score for a two-part piece. It consists of two systems of two staves each. The first system is marked 'Allegretto' and 'mf'. The second system is marked 'p'. The music is in 3/4 time. The right hand part features a two-note melodic framework with large note heads, and the left hand part features a corresponding two-note bass line with large note heads. Smaller note heads and stems are added to complete the two-part texture. The score includes dynamic markings (mf, p) and articulation symbols (accents). The first system ends with a fermata over the final note, and the second system ends with a double bar line.

Example 7a: UNISA Music Theory Examination Grade 6, Paper 1 (October 2013)

YouTube: http://youtu.be/_TzjfB4cVSc

The crossed diagonal lines mark the mirror patterns associated with the interval of a third or its inversion, the sixth. The pointed bracket in bar 7 shows the insertion of the third against the inversion of the outline of the triad (G–C, marked with a slur in the top line).

Where Example 7a mainly features *chord prolongation* through the many mirror patterns, Example 7b predominantly illustrates note-patterns that suggest *chord change*. The student is required to add three parts below the top line that was given. The harmonisation must include chords in root position and inversion, a passing second inversion, a cadential second inversion, and the dominant seventh chord in any position.

Example 7b: UNISA Music Theory Examination Grade 5 (June 2013)

YouTube: <http://youtu.be/6MmRbz-vcfQ>

The opening V–Ib progression is followed by the passing second inversion (bar 1), V–VI of the interrupted cadence (bars 2–3), the imperfect cadence in bar 4, V⁷d–Ib (bars 4–5) and the perfect cadence at the end. As explained above, chord IV (the subdominant chord) normally precedes chord V. In Example 7b this chord or its substitute (chord II) is indicated by an ‘x’.

To conclude

The systematisation of a field of knowledge enhances its status as an academic discipline and the study of music theory should not relinquish its highly sophisticated investigations and analyses in order to retain its status as a well-organised discipline. However, in the educational environment a regulatory approach may not always do justice to the study of music as a creative art. The method proposed in this article is aimed at the harmony beginner but it does not rely on prescribed rules and systematised knowledge – it follows the way in which music is shaped in works that students themselves play by taking horizontal melodic motifs instead of vertical structures (chords) and related theoretical abstractions as point of departure.

Furthermore, by using as primary source the music that students play, this approach yields a kind of knowledge known as non-propositional knowledge and knowledge acquired through experiential learning. Students combine concrete experiences, abstract conceptualization and reflective observation in active experimentation when basic melodic motifs are first experienced in their original environment – the effect is heard and the implications for writing music is then understood and finally applied when completing two-part counterpoint and four-part harmony exercises. By not following rules but by taking as primary source the music that students themselves play, their harmony is more than exercises, it becomes music. This strategy can also lay the foundation for the integration of rudiments of music theory with melody, rhythm, counterpoint and harmony at a much earlier stage than the advanced level at which the study of harmony is normally introduced.

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Notes

¹ Information on Jacotot is taken from Rancière's *Le Maître ignorant: Cinq leçons sur l'émancipation intellectuelle*.

² Rancière refers as follows to Jacotot's singular significance: 'his was the moment when the young cause of emancipation, that of the equality of men, was being transformed into the cause of social progress' (1991:134).

³ See Barad (2003). Karen Barad is currently Professor of Feminist Studies, Philosophy, and History of Consciousness at the University of California, Santa Cruz.

⁴ A concern with the music itself does not preclude the possibility of linking with extra-musical issues. Previously I have shown how melodic constructs that change in the course of a work can signify extra-musical meaning, more specifically various psychological states (Spies 2006 and 2011).

⁵ By following the links to YouTube the reader of this article may also listen to the music from which the examples are taken.

⁶ A triad is a chord that consists of three notes.

⁷ In *The didactics of harmony* (Spies 1988) the use of various melodic patterns in the teaching of harmony and counterpoint is set out in more detail. The accompanying workbook for students, *Harmony and Counterpoint: A study of texture for the beginner* (Spies 1983), contains exercises as well as musical excerpts and folk melodies for studying melodic note patterns.

⁸ This approach differs from the traditional method of learning to write harmony in the chorale style, that is, writing for soprano, alto, tenor and bass. In writing for a choir, chord change and not chord prolongation is the prominent feature. One may well ask: How many young people of today have direct contact with chorales, either as listeners or as members of choirs?

⁹ Because the proposed method focuses on horizontal melodic patterns, the traditional way of indicating inversions as a combination of vertical intervals is not used here when figuring inversions of chords.

¹⁰ This approach is the opposite of the traditional method, where the chords are figured first and the notes are written afterwards, following the instruction to double the correct note in the second inversion. Instead of learning a rule which says that the fifth of the dominant triad must be doubled in the passing second

inversion, students experience the 1-2-3 or 3-2-1 note pattern as a musical unit in the music they play, not as three separate pitches on paper only.

¹¹ At a later stage students learn that an ascending semitone may also be regarded as 2-3 in the relative minor scale. For example, B–C could represent V–I in C major (when acting as 7-8) or V–I in A minor (when acting as 2-3).

¹² Pattern 5-5 also occurs in the four-part perfect cadence but as this proposed method starts with two-part writing, it is best to avoid ending a phrase on the second inversion of the tonic.

¹³ Working with melodic note patterns that are experienced through direct contact with the music itself means that the student does not need to learn the rule ‘double the third of the submediant chord in the interrupted / deceptive cadence.’

¹⁴ Because of the limited scope of an article format, for demonstration purposes I have deliberately chosen one example in which a variety of melodic patterns occur in skeletal format. However, the appearance of so many types in such a limited space is not that common.

¹⁵ From an analytical perspective an augmented sixth chord may be regarded as a secondary dominant function followed by its resolution, chord V. However, this article about beginner harmony deals with the development of music-writing skills that requires the student to be able to discriminate between the three different augmented sixth chords.

¹⁶ In the minor key, 6-5 is a semitone but in the major key the sixth degree must be lowered to create the semitone distance.