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# *Discussion document concerning the REFORM of BASIC MUSIC THEORY TERMINOLOGY*

## *1. Tonality and form*

Philip Tagg, 29 December, 2013<sup>1</sup>

### *Preliminaries*

#### *Formal conventions*

- All source references are listed in a *single* 'References' appendix.
- This text follows the Cambridge University Press house style, e.g. *synthesise* rather than *synthesize*, single rather than double quotes.
- The following typeset conventions are used:
  1. Sans-serif bold lower case for note names, e.g.  $b\flat$   $b\sharp$ ,  $c$ ,  $c\sharp$ ;
  2. Tahoma for lead-sheet chord names, e.g.  $E7 \rightarrow Am$ ;
  3. roman numerals in IMPRINT font for non-key-specific tertial chords based on scale degree e.g.  $bVII \rightarrow IV \rightarrow I$ .
  4. simple arabic numerals for non-key-specific scale degrees, e.g.  $1\ 2\ b3\ 4\ 5\ b6\ \#7$  rather than  $\hat{1}\ \hat{2}\ b\hat{3} \dots$  for a harmonic minor scale.
  5. Chord loops are delimited by arrows turning  $180^\circ$  horizontally, e.g.  $\curvearrowright C\ Am\ Dm\ G7 \curvearrowleft$  (I-vi-ii-V<sup>7</sup> vamp in C major);
  6. Chord shuttles are denoted by a double-headed arrow, e.g.  $Bb \leftrightarrow Gb$  at the start of Chopin's March funèbre.

#### *Scope of this text*

This text is part of proposals to reform, rationalise, democratise and de-ethnocentrify the study of music. It addresses some fundamental problems of logic and cultural equity in the denotation of musical structure. It focuses on the 'troubles with tonal terminology' (p. 7, ff.) and on the restrictive notion of 'form' in music (p. 24, ff.). It does *not*

1. Substantial parts of this text were submitted under the title 'Troubles with tonal terminology' as a contribution to the *Festschrift* for Coriún Aharonián and Graciela Paraskevaidis (Montevideo), November-December 2011. Subsequent changes and additions were made in April 2012, February 2013 and November 2013. This text is a revision of the November 2013 version.

address issues of timbre, vocalisation, sound design, aural staging, rhythm, periodicity, phrasing, etc. in any detail.

### *Background*

My own awareness of problems denoting musical structures is the result of forty years of work as a ‘musicologist of the popular’. Although I was, in the 1970s, aware of incongruities when I tried to apply the terminology of conventional music theory to popular music, it was not until the 1990s that I realised the extent to which that terminology can be both inadequate and deceptive. It was a gradual awakening that, summarised in the following six stages, will hopefully make for instructive reading.

### *Six stages*

[1] When I was very young, my mother used to sing the minor hexatonic tune *The Tailor and the Mouse*. I also remember her humming ionian mini-chromatic music-hall numbers like *If You Were The Only Girl/Boy In The World*. My father, a self-taught amateur pianist, could muddle through piano arrangements of minuets from Mozart symphonies and accompany traditional tunes like the dorian *What Shall We Do With The Drunken Sailor?*, as well as ionian nursery rhymes like *Hickory Dickory Dock*.<sup>2</sup> He could also occasionally be heard ‘doodle-doo-ing’ a Glenn Miller or Jack Hylton horn riff. Then, as a teenager, my piano and organ teacher, Ken Naylor, not only introduced me to bebop and Bartók but also taught me to play jazz standards and to do close-harmony arrangements. With that musical background, which I later discovered was considered ‘unusually eclectic’ by others, I became a music student at Cambridge University in the early 1960s and was confronted by an almost exclusively euroclassical world. During my time at that institution (1962-65) I had to actively seek out musical opportunities *outside* the academy, not so much for prosaic financial reasons as to preserve my own psycho-socio-musical sanity. I joined a a

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2. References: [1] *The Tailor and the Mouse* (Eng. trad., Tagg 2009c); [2] *If You Were The Only Girl* (Como 1946); [3] *What Shall We Do With The Drunken Sailor?* (Eng. trad.); [4] *Hickory Dickory Dock* (Eng. nursery rhyme).

Scottish country dance band and a soul/R&B combo while trying to find the time, even if I rarely found the inclination, to ‘complete this motet in the style of Palestrina’.<sup>3</sup> Before studying at Cambridge I had not met many who heard one sort of music as intrinsically superior to another, but during my time in that Disneyland of the English Renaissance I found myself repeatedly trying to convince those who held such narrow views of aesthetic excellence that they were missing something. Therein, I suppose, lie the origins of my subsequent career as musicologist of the popular. The first really substantial writing I produced on the subject was my doctoral thesis (Tagg, 1979).

[2] One of the main points in the explanation of popular music analysis method presented in my PhD was that the hierarchy of ‘primary’ (scribal) and ‘secondary’ (non-scribal) parameters of expression was inapplicable to music whose mediation rarely relied on notation and whose expressive dynamic resided in bouts of the extended present (*intensional* aesthetic) rather than in long-term harmonic and melodic narrative (*extensional*).<sup>4</sup> Another critical point was my insistence on a semiotic approach to music analysis and on the notion that thoughts about musical structuration should include discussion of its meanings.

[3] Invited in 1984 by Coriún Aharonián to run popular music analysis seminars at the *Cursos latino-americanos de música contemporânea* in Tatuí, Brazil, I had to confront my Euro-North-American cultural limitations and to listen with open ears to previously unfamiliar types of music. With help from other course participants, I gained insights into how the actual sounds of popular musics in Latin America, like those of many popular styles from my own part of the world, could not be adequately described using the terminology of conventional music theory. Coriún also brought to my attention the work of Carlos Vega whose writings on popular mu-

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3. ‘Complete this motet in the style of Palestrina’, ‘this invention in the style of Bach’, ‘this piano quartet in the style of Brahms’ etc. were typical end-of-year composition exam questions.

sic I later found useful in explaining the functions of harmony in chord shuttles and loops.<sup>5</sup>

[4] Later, when questioning reductionist and ethnocentric assumptions about the structural traits of ‘black’ and ‘white’ in music (Tagg, 1989; 2011c), I stumbled on strange contradictions in terminology descriptive of rhythm and metre. Firstly, the 1958 *Harvard Dictionary of Music* entry on ‘Dotted Notes’ refers to the ‘Scotch snap’ as ‘the reverse of the ordinary dotted rhythm’, noting that ‘[i]nverted dotting is... very frequent in Oriental and in primitive [sic] music, where the normal dotted rhythm is rather rare.’ Whoops! If *ordinary* and *normal* are ‘rare’ and if the *reverse* or *inverse* is ‘very frequent’, linguistic logic has broken down, unless the oxymoron is intended as a humorous rhetorical device.<sup>6</sup> Secondly, if *syncopation* is, according to the same *Harvard Dictionary*, ‘any deliberate upsetting of the normal pulse of metre, accent and rhythm’, and if ‘[o]ur system of musical rhythm rests upon the grouping of

4. See ‘Extended present’ in Chapter 8 of Tagg (2013). According to Hall (1992: 209), ‘[b]asic to [Leonard B] Meyer’s argument are the differences between primary and secondary parameters... The primary parameters—melody, rhythm, harmony— are syntactic because they can define closure... The secondary parameters—tempo, dynamics, texture, timbre—are statistical rather than syntactic because they change only in quantity and therefore cannot create closure... A central theme [of Meyer (1989), under review] is that secondary parameters... gain increasing dominance over primary parameters and syntactic processes through the nineteenth century and into the twentieth. This trend leads... to the increasing structural importance of statistical plans as opposed to syntactic scripts, and to the overwhelming statistical climaxes by which “unrealized implications... [and] unresolved tensions... are absorbed and ‘absolved’” (p. 268).’ Since Meyer himself seems well aware of the incongruity (the ‘increasing dominance’ of secondary ‘over primary parameters’, etc.), it is not his historical observations that are the problem but the actual terms ‘primary’ and ‘secondary’. The *Concise Oxford Dictionary* (1995) presents the first meanings of *primary* as ‘of the first importance, chief; fundamental’ while *secondary* is primarily (*sic*) defined as ‘coming after or next below what is primary; derived from or depending on or supplementing what is primary’. If what seemed once to be primary and secondary can, in the light of musical evidence, no longer be usefully conceptualised in such clearly hierarchical terms, more accurate, non-hierarchical concepts become a necessity. Perhaps we should be talking about ‘scribal’ and ‘non-scribal’, or ‘notatable’ (*transcriptible* in French) and ‘non-notatable’ (*non-transcriptible*) parameters.

equal beats into groups of two and three, with a regularly recurring accent on the first beat of each group', then '[a]ny deviation from this scheme is felt as a disturbance or contradiction between the underlying (*normal*) pulse and the actual (*abnormal*) rhythm'. This definition means that syncopation can only occur in monometric music because, as soon as two metres co-occur, 'disturbance' in one beat pattern ('abnormal rhythm') is normally the norm in the other, and because those two patterns together create a composite norm of cross-rhythm, a single metric unit in an ongoing state of contradiction. It's simply wrong to qualify as syncopated whatever those of us from a monometric background hear as 'abnormal' in terms of shifting up- and downbeats.<sup>7</sup>

[5] During the 1990s an increasing number of students in my film music and popular music analysis seminars came from disciplines

5. See Chapters 10-12 in Tagg (2009a). 'Shuttle' = *lanzadera, vaivén* (repeated to-and-fro between two chords); 'loop' = *lazo, vuelta* (short, repeated 'circle' of usually three or four chords). Vega's concept of bimodality was useful in explaining harmony in many different types of popular music.
6. All italics and underlinings are mine. For a thorough discussion of the Scotch snap, see Tagg (2011a).
7. Neither Sub-Saharan cross-rhythm nor the fluctuating to-and-fro patterns of downbeat placement in styles like *candombe, merengue, rumba* or *son montuno* constitute syncopation because what sounds like metric disturbance in our ears is an intrinsic part of the ongoing norm. It should also be noted that the term *polyrhythm* (literally = more than one *rhythm* at the same time) is often used erratically to denote Sub-Saharan *cross-rhythm*. Unless the music is strictly homophonic and contains no contrapuntal elements, all polyphonic music features more than one simultaneous rhythm and is therefore polyrhythmic. *Polymetricity* (more than one *metre* at the same time) may be a viable term for people brought up in a monometric music culture who want to grasp the rhythmic principles of Sub-Saharan musics but that is *not* how the music's users and scholars hear it. For them it's *cross-rhythm*, 'a single metre in a permanent state of contradiction' (Tagg, 2013: 457-465, quoting Ladzekpo (1995) and Peñalosa (2009)). Moreover, medieval, baroque and Tudor music performance practice, with its use of tactus instead of metric conducting, suggests that symmetric monometricity, visualised in later types of notation by the ubiquitous bar line, is also foreign to European musics of that time. The term *syncopation*, applied to frequent hemiola shifts (as in the Galliard), is in other words questionable, especially in contrapuntal sections where duple and triple metre occur simultaneously in different voices as simple composite cross-rhythm.

other than music[ology]. I soon discovered that these students were competent members of the music culture[s] to which they belonged. They could identify significant aspects of musical structure in terms like ‘the chord at 1 minute 40 [seconds]’ (timecode designation), or ‘what the drummer does just before the final chorus’ (designation by paramusical synchrony).<sup>8</sup> They were also often better than music students at identifying the *expressive* qualities of the structures they identified in this sort of way – ‘the Celtic folk virgin voice’, ‘the detective chord’, ‘the saxophone’, ‘the tiptoe bass’, for example. It became clear that there was a sharp divide between structural descriptors deriving chiefly from the *production* of music – *poietic descriptors* like ‘head voice tessitura’ and ‘minor major nine chord’ – and those based on *perception* – *aesthetic descriptors* like the ‘princess voice’ and the ‘detective chord’. It became increasingly obvious that music theory’s structural descriptors, unlike those used in, say, the visual arts, were almost exclusively poietic and gobbledygook to those with no formal training in music theory. The most disturbing symptoms of this contradiction are of course: [i] that musical analysis is more often than not absent in media education; [ii] that film directors and film composers often have difficulties understanding each other; and [iii] that vernacular musical competence – as in references to, say, the ‘sexy sax’ or ‘tiptoe bass’ – is trivialised and academically disqualified. We musicologists have, I fear, largely failed to recognise, let alone systematise, this ubiquitous type of cultural competence. The need for a democratic reform of structural terminology in music is critical in this age of digital media, smartphones, gaming, satellite TV, audio and video streaming or downloading, etc.<sup>9</sup>

[6] The final stage in the process of awareness under review started in the late 1990s when I had to write substantial entries on melody, harmony, polyphony and modes for volume 2 of EPMOW

8. See Tagg (2013: 256-260).

9. For more on poietic and aesthetic descriptors, see under ‘Musical knowledges’ in chapter 3 and under ‘Aesthetic focus’ in chapter 6 of Tagg (2013).

(2003), the *Continuum Encyclopedia of Popular Music of the World*. This task forced me to directly confront the sort of problems I had experienced earlier. It became impossible to even pretend thinking that the terminology of conventional music theory might somehow sort itself out. I felt obliged to raise some sort of alarm. My subsequent efforts to bring at least some semblance of logic to very basic terms of structural denotation started with a small but significant anomaly – what to call chords based on stacked thirds if those based on stacked fourths are called ‘quartal’. I agonised for weeks when writing the ‘harmony’ entry before realising that I had no alternative but to propose a neologism, as explained in the next section. Then, when asked by Franco Fabbri in 2006 to use those encyclopaedia articles as the basis for a handbook in music theory (Tagg 2009a, 2011b) and by Coriún to contribute to the conference *Muscologia y colonialismo* (Tagg 2009b), I finally managed to connect the dots. It was not only a matter of scholarly logic but also, as both Fabbri and Aharonián were well aware, of proposing alternatives to an ethnocentric and class-centric terminology that is also colonialist (Aharonián 1992).

## Tonal terminology

### *Triads and tertial harmony*

Ex. 1. Four tertial and five quartal chords

The image shows two musical staves. The first staff, labeled 'tertial', contains four chords: [1] (C-E-G), [2] (E-G-C), [3] (C-E-G-Bb), and [4] (F-A-C). The second staff, labeled 'quartal', contains five chords: [5] (G-C-F), [6] (Bb-Eb-Ab), [7] (F-Bb-Eb), [8] (G-C-F-Bb), and [9] (D-G-C-F-Bb). Brackets below the notes indicate the number of differently named tones: [1], [2], [4], [5], [6], and [7] are triads; [3] and [8] are tetrads; and [9] is a pentad.

Example 1 shows nine chords, the first four based on stacked thirds ([1] c e g, [2] c e g inverted as e g c, [3] c e g bb and [4] f a c inverted), the last five on stacked fourths ([5] g c f inverted as c f g, [6] bb eb ab as eb ab bb, [7] f bb eb as eb f bb, [8] g c f bb as c f g bb, and [9] d g c f bb arranged c d f g bb). Chord numbers 1, 2, 4, 5, 6 and 7 are triads because each contains three differently named tones, chord numbers 3 and 8 are tetrads (four differently named tones) and number 9 is a pentad (five). So far, so good: chords 5, 6 and 7

are quartal triads, chord 8 a quartal tetrad and chord 9 a quartal pentad. The trouble starts when you try to be equally precise about chords 1-4 because many music theorists insist on calling them ‘triadic’ even though chords 5-7 are no less triadic than chords 1, 2 and 4. It is, I suppose, understandable that the stacking of thirds seemed to need no qualification as long as it was considered the single norm from which all other types of tonality were assumed to diverge, but that assumption is clearly untenable as soon as a *variety* of tonal idioms needs to be described. Therefore, if harmony based on stacked *fourths* is called *quartal*, harmony characterised by the stacking of *thirds* has to be called *TERTIAL*.<sup>10</sup> The supposed binary triadic/quartal is false because it confuses two distinct criteria of chord denotation – the *number of notes in a chord* (triadic, tetradic, etc.) and the *principle of interval stacking in a chord* (tertial for thirds, quartal for fourths). It’s as if quartal harmony, the ‘abnormal’ idiom in euroclassical ears, needed a label (quartal) while the ‘normal’ idiom (tertial) was considered so normal as to require no qualification.<sup>11</sup>

Euroclassical tertial harmony is also sometimes referred to as *functional* as if other types of tonal polyphony had no function. The fact that the chord loops, shuttles, matrices and turnarounds of popular music styles function either as ongoing tonal-motoric gesture (part of ‘groove’), or as episodic markers, and that change from one ongoing tonal pattern to another can be instrumental in establishing a sense of narrative (diataxis or episodic ‘form’) seems to escape disciples of Riemann or Schenker. I’ve even heard ‘diatonic’ used as a label for tertial harmony as if no quartal polyphony ever

10. It goes without saying that chords consisting of stacked fifths are also quartal, not ‘quintal’, because the fifth is the octave complement of the fourth, just as no-one refers to ‘sextal’ harmony when a sixth, the octave complement of a third, is featured in a tertial chord.

11. It’s another case of ‘us’ as ‘normal people’ against ‘them’ as ‘foreigners’ or ‘others’, including the ‘Other’ inside ourselves (Kristeva, 1988: *Étrangers à nous-mêmes*); see also ‘Popular Music Studies versus the “Other”’ (Tagg, 1996).



visited all notes in a diatonic heptatonic mode: it's as if the music of Hindemith, Bartók, Freddie Hubbard, Miles Davis, McCoy Tyner, Clarence Ashley and Sokratis Málamas had never existed.<sup>12</sup> Euro-classical tertial harmony is simply one particular (and in terms of narrative construction particularly interesting) variant of tonal polyphony. There are many others but their denotation can, like that of euroclassical tertiality, often be problematic, sometimes to the point of absurdity. Particularly muddle-headed are the two binaries TONAL V. ATONAL and TONAL V. MODAL.

### *Underlying problem concepts*

#### *Basic tonal terms*

- Before disentangling the contradictory binaries just mentioned I need to posit six axiomatic working definitions.

[1] *NOTE*: [i] any single, discrete sound of finite duration in a piece of music (MIDI definition); [ii] any such sound with audible fundamental pitch (for example  $c_1$ , a low  $e\flat_3$ , a 440 Hz, a high  $f\sharp_5$ ); [iii] the duration, relative to the music's underlying pulse, of any note according to definition [i] or [ii] (e.g. quarter-note, *Viertel*). The first definition of NOTE will be used in this text: *any single, discrete sound of finite duration in a piece of music* (the 'MIDI definition').

[2] *TONE*: *note with audible fundamental pitch* (definition [ii] of NOTE). *TONAL* means having the characteristics of a tone or of tones.

[3] *TONIC* (n.): *reference tone, keynote or tone of central importance* in a piece or extract of music.

[4] *TONALITY*: *system, explicitly codified or not, according to which tones are configured* in a musical culture or subculture.

[5] *MODE*: *tonal vocabulary*, often abstracted and arranged in scalar form for theoretical purposes, of a piece or extract of music.

[6] *POLYPHONY*: [i] music in which at least two sounds of clearly differing pitch, rhythm, timbre or type of articulation occur at the

12. Wikipedia features authoritative articles on all these musicians.

same time (MIDI definition); [ii] music in which at least two sounds of audible fundamental pitch occur simultaneously (tonal polyphony); [iii] a particular type of contrapuntal tonal polyphony used by certain European composers between c.1400 and c.1650 (restrictive euroclassical meaning). In this article POLYPHONY will refer to *music in which at least two sounds of clearly differing pitch, rhythm, timbre or type of articulation occur at the same time* and POLYPHONIC will qualify any music exhibiting those traits. Drumkit patterns (non-tonal polyphony), melodies with drone or any other form of tonal or non-tonal accompaniment, four-part homophony, rock recordings, etc., as well as a Byrd motet or Bach fugue (all tonal polyphony), are in other words (unlike, say, an accompanied monophonic melody or clave pattern sounding on its own) all polyphonic according to this commonsense definition used, for example, by instrument manufacturers needing, in the 1980s, to distinguish a polyphonic from a monophonic synthesiser.

#### *Tonal and tonical*

The most striking terminological anomaly in conventional music theory is perhaps that between TONAL and 'ATONAL' music. Schönberg, for one, objected to the label 'atonal' because his compositional norms were defined by *tonal* rules, by TWELVE ONE techniques. Besides, neither he, nor Berg, nor Webern were famous for their use of atonal sounds (*atonal* in the logical sense of non-tonal): you won't find much hi-hat, snare drum, maracas or sampled traffic in their oeuvre. It is indeed bizarre that euroclassical music theorists managed to confuse the notion of *music with no intended tonic*, as in the work of twelve-tone composers or in Herrmann's music for the shower scene in *Psycho* (1960), with music containing no tones, as in, say, *taiko* drumming (e.g. Kodō 1985) or Herrmann's score for *The Birds* (1963). Using appropriate linguistic derivatives, there are two conceivable solutions to this embarrassing lexical problem: the '-AL, -ALITY, -ALIST' and the '-IC, -ICAL' patterns set out in Table 1 (p. 11).

Table 1. Linguistically conceivable solutions to the terminological confusion between tone and tonic

<b>Pattern 1: – , –al, –ality, –alist[ic]</b>			
<i>root noun</i>	<i>adjective 1</i>	<i>abstract noun</i>	<i>adjective 2</i>
centre	central	centrality	centralist
form	formal	formality	formalist
crime	criminal	criminality	criminalistic
sense	sensual	sensuality	sensualist
TONE	TONAL	TONALITY	¿TONALIST[IC]?
<b>Pattern 2: –ic, –ical</b>			
<i>noun</i>	<i>adjective</i>	<i>noun</i>	<i>adjective</i>
comic	comical	clinic	clinical
ethic[s]	ethical	magic	magical
music	musical	rhetoric	rhetorical
polemic	polemical	tropic[s]	tropical
statistic[s]	statistical	TONIC	<u>TONICAL</u>

TONE, TONAL and TONALITY follow the linguistic logic of CENTRE - CENTRAL - CENTRALITY and FORM - FORMAL - FORMALITY but, unlike those examples of that pattern, TONE has no adjective deriving from the abstract noun TONALITY. Unlike CENTRALIST or FORMALIST, TONALIST (or TONALISTIC) just doesn't exist. If it did, it might be used to qualify tonal music with a tonic, while 'non-tonalist' might be used to denote tonal music with none. However, apart from sounding like the name of a political movement – 'we tonalists will introduce free mobile ringtones after the next election' – NON-TONALIST would erroneously imply that tonal music without a keynote has no tonality, i.e. no system according to which tones are configured. Since that is patently untrue, the only logical solution is to use the second pattern of derivation to create an adjective ending in -AL on the basis of a noun ending in -IC. Pattern 2 in Table 1 suggests that just as CLINICAL things happen in CLINICS, just as the weather is TROPICAL in the TROPICS, and just as RHETORICAL devices (like the 'just as' anaphora of this sentence) are used in RHETORIC, tonal music that uses a TONIC ought to be TONICAL and tonal music that does not should be called either ATONICAL or NON-TONICAL. That would at least rid us of the illogical uses of 'atonal' and 'atinality'.

The next item of widespread terminological disorder is less obviously absurd but it is, I believe, just as questionable. It is also more insidious.

*'Tonal' and 'modal'*

Let me start with an analogy. I once overheard a French student on exchange at the Université de Montréal saying to one of her *québécois* classmates *'Mais vous avez tous un accent ici'*. I was struck by the chauvinism of her observation, not least because she was attending the oldest francophone university in the francophone world's second largest city. It is probably less surprising that, here in the UK, it was only a few decades ago that 'talking with an accent' (i.e. in any other way than that considered correct at 'public' (i.e. private) schools or at Oxbridge) was considered acceptable for BBC announcers and newsreaders.

The analogy between the notion of 'speaking with an accent' and 'making modal music' should be clear. According to such thinking it matters not, so to speak, if more people 'speak with an accent' than use 'received pronunciation', or if they make music using tonal vocabularies (modes) differing from those of the euroclassical repertoire. In both cases the former, usually practised by a majority, is given a label implying divergence or deviation from an assumed norm usually established by a minority.<sup>13</sup> Indeed, 'modal music' in conventional music theory came to mean music in any other mode than the two used in the euroclassical repertoire of the eighteenth and nineteenth centuries. Those two modes are of course the heptatonic *major scale* (ionian — 1 2 #3 4 5 #6 #7) and the heptatonic *minor scale* which has three variants.

1. Melodic minor (ascending): 1 2 b3 4 5 #6 #7 ('ionianised')
2. Melodic minor (descending): 8 b7 b6 5 4 b3 2 [1] (æolian)
3. Harmonic minor: 1 2 b3 4 5 b6 #7 ('ionianised')

13. Modes were often named after the regions or nations of which they were considered typical— the Ionian and Dorian modes, for example, or the Hijjaz and Kurd *ajnas*, or, in vernacular European parlance, a 'Gypsy scale'. See also the semantic contortion of 'inverse' v. 'normal' dotting according to the *Harvard Dictionary of Music* under §4, pp. 4 -5, above.

Only the *descending melodic* minor corresponds to any of the other European heptatonic modes. The point is that in conventional music theory, tonal vocabularies using the euroclassical major and ionianised minor modes are often qualified as ‘tonal’, as if all other modes were not also tonal, as if their distinctive tonal traits were not also defined by the way their constituent tones are configured in relation to a tonic. That is clearly nonsense because all modes are by definition tonal in that they consist of tones. They are also tonical because they are defined by the way in which their constituent tones are configured in relation to a tonic.<sup>14</sup>

Conversely, the ionian mode, the most common tonal vocabulary in the euroclassical repertoire, is rarely, if ever, considered a mode ‘because’, I’ve heard people say, ‘it’s tonal, not modal’! This tautological travesty not only ethnocentrically relegates ‘modality’ to a state of alterity divergent from a unilaterally declared ‘tonal’ norm; also, by excluding the ionian from the realm of modality, it prevents us from investigating which particular characteristics of that mode may have led to its general adoption and popularity in Europe in the seventeenth through nineteenth centuries.

Here it is worth remembering that only two of the seven European heptatonic ‘church’ modes (ionian and lydian) contain raised subtonics (‘leading notes’, #7) and, in terms of harmony, that only the ionian mode features tertial major triads on the prime, the perfect fourth and the perfect fifth. Did the semitonal pull towards the tonic triad of notes inside the other two tertial major triads, one descending (4↘#3 in IV-I or V<sup>7</sup>-I), the other ascending (#7↗8 in V-I), make for a stronger type of tonal directionality than those found in other European heptatonic modes? Did the popularity of the ionian mode, with its #7, lead to alteration of the subtonic in two of the euroclassical tradition’s three minor-mode variants? Did the ionian mode’s two leading notes, one rising (#7↗8) and the other falling (4↘#3), make it more conducive to modulation than other available modes? Could any of those other modes have ever led to the development of extensional harmonic narrative, as in the so-

14. See section on monomodality/bimodality, p. 19, ff.

nata form of the first movement in a Beethoven symphony? I cannot answer any of these questions but I also fail to see how any light can be shed on such matters if the ionian is not considered as one mode among several.

The terminological appropriation of ‘tonal’ to refer to just one set of tonal practices during a brief period in the history of the world’s smallest continent is, to say the least, problematic. The false dichotomy ‘tonal v. modal’ is one example of the confusion, the terms ‘pre-tonal’ and ‘post-tonal’ another, since they both patently imply that medieval and early Renaissance music (‘pre-’) is as devoid of tones as twelve-*tone* music (‘post-tonal’, ‘atonal’, etc.). And what about the anhemitonic pentatonicism in widespread use all over the planet before, during and after the so-called ‘tonal’ period, or of the continued popularity of tertial ionian harmony in today’s supposedly ‘post-tonal’ era? This hijacking of ‘tonal’ has obvious repercussions on the notion of TONALITY.

#### *Tonality, Grammaticality, Tonart, Tonalité*

‘TONALITY’ is still used by some scholars of music to denote the practices they consider tonal in the restrictive sense just criticised. Used in that way, ‘tonality’ refers to one system, and one only, according to which tones are configured. Imagine if GRAMMATICALITY could only refer to the grammatical rules of just one language or group of languages, for example to English or to Neo-Latin and Germanic languages, in which correct use of definite and indefinite articles is a central element of grammaticality. Such restrictive use of the term would mean that Chinese, Farsi, Hindi, Indonesian, Japanese, Russian and hundreds of other widely spoken languages which use no definite articles would not be considered grammatical. Such an implication would provoke uproar among comparative linguists but I have yet to register much uproar among musicologists against an equally restrictive use of the word TONALITY. That’s why I propose that TONALITY should mean *the system or set of norms according to which tones are configured in any musical culture*. However, even if that much less ethnocentric definition solves one important problem, it raises another.

The broader definition just presented works well in English and in Germanic languages where TONALITY/TONALITÄT is distinguished from the concept of KEY/TONART. In Neo-Latin languages, however, TONALITÉ, TONALITĂ, TONALITATE, TONALIDAD and TONALIDADE tend to mean KEY/TONART rather than TONALITY/TONALITÄT which, consequently, requires another expression to clarify the distinction. As a native anglophone I am hardly in a position to advise speakers of Catalan, French, Italian, Spanish, Portuguese or Romanian how TONALITY/TONALITÄT should be translated but I used to suggest to students at the francophone Université de Montréal who were uncomfortable using TONALITÉ in both senses that they might consider, at least as a stop-gap solution, an expression like *IDIOME TONAL* or *SYSTÈME TONAL* to cover the concept TONALITY/TONALITÄT and stick to the more common use of TONALITÉ as equivalent to the Anglo-Germanic concept of KEY/TONART. I realise how unsatisfactory this suggestion may be and would be grateful to hear suggestions from colleagues in Iberia, Italy, Latin America, Romania and the francophone world as to how this conceptual problem might be resolved.<sup>15</sup>

#### *More 'norms'*

The confusion and culturally restrictive character of central concepts referring to tonality in conventional music theory runs deep in the details of structural description. I've already mentioned the problems of TONAL, ATONAL and TONICAL, as well of TERTIAL and QUARTAL. I will end this part of my text with a very brief account of two interrelated problems: *harmonic cadence nomenclature* and *monomodality*.

#### *Harmonic cadence nomenclature*

There are four main harmonic cadence types in the conventional theory of euroclassical music. Two of those cadence types take one

15. Thanks to Luana Stan (Iași / Montréal) who informed me (2011-12-04) that in Romania *sistem tonal* denotes solely euroclassical ionian tonality in contradistinction to other tonalities such as *sistem atonal*, as in twelve-tone music (!), and *sistem modal* (all those 'non-tonal' modes!). If similarly muddle-headed notions exist in other Neo-Latin languages this problem will not be easily solved.

step flatwards, the other two one step sharpwards round the circle of fifths. The centrality of the flatwards  $V \rightarrow I$  PERFECT or FINAL CADENCE in euroclassical tonality needs no introduction but the three others warrant some discussion that can shed light on conceptual problems with the nomenclature of all four types. The two cadences which proceed clockwise round the circle of fifths are the HALF or IMPERFECT CADENCE and the PLAGAL CADENCE. The second anticlockwise way is usually called an INTERRUPTED CADENCE.

The HALF CADENCE is so called because it marks the harmonic change from I to V in common harmonic schemes like I V V I over a period of, say, four, eight or sixteen bars in which V is the obvious halfway house. A typical half cadence, as in bars 3-4 of example 2, which proceeds from I to V, is a cadence because it marks a resting point on a different chord to whatever precedes it; and it is 'half' because it marks that change halfway through a longer harmonic scheme, such as the eight-bar period of ex. 2. It is an imperfect cadence because, in a tonal context of ionian tertiality, it has no finality. By marking the end of a phrase or smaller part of a larger unit, of which half is still to come, it has the opposite effect of the perfect cadence  $V \rightarrow I$ . Put simply, half or imperfect cadences ( $I \rightarrow V$ ) in ionian-tertial tonality serve rather to open up harmonic processes and perfect cadences ( $V \rightarrow I$ ) to close them.<sup>16</sup>

Ex. 2. Half/imperfect cadence : *E viva España* (Vrethammar, 1973).

I ————— half cadence → V

A E

Det här, det är min ny mu-sik E vi - va Esp-añ-al

(1/2) V ————— perfect cadence → I

(1/2) E A

Det här, ni, det är romantik. E vi - va Esp-añ-al

16. *Cadence suspendue* and *cadenza sospesa* are the French and Italian names for half cadence: harmonic completion has been suspended, left hanging in the air.



## Ex. 3. Mila moja ('A' section; Serbian trad., quoted from memory)

♩=c.124    D            A            D            A            A            *Fine*

Mi - la mo - ja,    Mi - la mo - ja,    ??

However, the notion that I→V cadences are intrinsically imperfect, incomplete or suspended obviously makes no sense in example 3, with its *fermata* and *Fine* on the final A. Of course, it's doubtful if A is actually a V chord at all. It certainly can't be a 'dominant' if it's the piece's final harmonic resting place. That in turn begs the question as to whether the tune is 'in' D or A. It's more likely conceived according to different tonal norms. Maybe it's 'in' both D and A?<sup>17</sup>

Like their 'imperfect' cousins, PLAGAL CADENCES also run clockwise round the circle of fifths, but not from I to V. Instead they take the single sharpwards step IV→I. Since they end on the tonic, plagal cadences involve harmonic closure, as is evident from their use as the AMEN chord formula par excellence. That said, it's significant that medieval music theorists chose the Latin word for 'oblique' (*plagiarius*, from πλάγιος meaning sideways, slanting, askance, misleading – the same etymological connotations as in *plagiarism*) to distinguish certain modes, not chords, from their 'authentic' variants. It's also interesting to note how the same adjective connoting falsity came to qualify the chordal 'Amen ending' IV→I. Plagal cadences may in other words be endings but conventional music theory does not qualify them as true, authentic, direct, complete, full, final or perfect. Those adjectives are of course reserved for the *perfect cadence* V→I.

INTERRUPTED CADENCES in euroclassical tonality do exactly what their name suggests: they interrupt a V→I cadence by substituting I with a closely related chord, usually the common triad on degree 6 of the relevant key, V→vi, or sometimes V→VI, or, less commonly, V→*b*VI. Proceeding from V to vi (or VI) is of course an efficient way of interrupting euroclassical finality because, in that tonal tradition, vi or VI leads anticlockwise round the circle of

17. See comments about monomodality and bimodality (p. 19, ff.).

fifths, via ii or II back to V again and the FINAL/FULL/PERFECT CADENCE V→I. It's also significant how the interrupted cadence (V→vi) is referred to in other European languages as 'deceptive' (*cadence trompeuse*, *Trugschluss*, *cadenza d'inganno*), 'broken' (*cadence rompue*) and 'avoided' (*évitée*).<sup>18</sup>

If anything demonstrates the 'normality' of V→I closure in conventional notions of euroclassical harmony it must surely be the distinction between qualifiers like, on the one hand, HALF, INCOMPLETE, PLAGAL/OBLIQUE, INTERRUPTED, DECEPTIVE and FALSE; and, on the other, PERFECT/FINAL/FULL (V→I). However...

Ex. 4. Uninterrupted final cadence on vi: *Um Um Um Um Um* (Wayne Fontana and the Mindbenders, 1964): final refrain and ending.

The musical notation shows a melodic line in G major (one sharp) and 4/4 time. The melody consists of the notes G4, A4, B4, C5, B4, A4, G4, repeated three times. Above the notes are Roman numerals: I (A), ii (Bm), vi (F#m), ii (Bm), and vi (F#m). The final note is marked 'poco rit.' and 'FINE'. The melody ends with a fermata over the final note.

I've included example 4 as evidence that there need be nothing interrupted, oblique, deceptive, false, unauthentic, incomplete, or imperfect about a final cadence landing on vi (F#m), the relative minor triad of the song's previous tonal centre (I in A major). There's even a *ritenuto* and change of rhythmic articulation to underline finality — ♩. | ♩ | instead of the usual ♩ ♩ ♩ ♩. <sup>19</sup> In short, euroclassical cadence categories and assumptions about harmonic direction may be fine for the musical-cultural practices on which such conceptualisation is based but it is absurd to assume that those categories and concepts apply to any other body of music

To make this point quite clear, example 5 presents an unambiguously *uninterrupted* final melodic cadence from 'pre-tonal' (!) times. That's followed by two equally *uninterrupted* 'interrupted' cadences from 'post-tonal' (!) times (examples 5 and 7).<sup>20</sup>

18. *Trompeuse*, *rompue*, *évitée* are French, *Trugschluss* is German and *inganno* Italian.

19. *Um Um Um Um Um* was written by Curtis Mayfield and first recorded by Major Lance (1963). The verses are resoundingly in A major as, indeed, is the first half of each refrain. The Lance original ends with a fade-out but the Fontana cover leaves no doubt about the identity of the tune's final chord.

Ex. 5. Psalm tone 2 (end of final *Gloria Patri* simplified)

sic - ut erat in principio et nunc et sem - per et in sæculi sæculor-um. A - men.

Ex. 6. Beatles: *Not A Second Time* (1963c: uninterrupted æolian cadence and I-vi/♭III-i shuttle in fade-out)

8 I'm wond'rin' why. You hurt me then, you're back again. No, no

6 8 no, not a 2nd time! Not a 2nd time not a 2nd

11 8 time No no no no Not a second  
FADE-OUT

Ex. 7. Los Calchakis: 'Quiquenita' (Argentinian trad.); *La flûte indienne*, 1968) — bimodal loop: ♭VII ♭III V i or IV I III vi?

zampoñas ♩=c.80 C G B Em

*Monomodality*

While examples 4 and 5 illustrate final 'uninterrupted' cadences, examples 5 and 7 do not: they are simply 'uninterrupted' and carry no definite sense of finality. The Beatles tune (ex. 5) fades out over a shuttle between G major and E minor and although the actual *Flûte indienne* recording (ex. 7) ends on E minor it could go on repeating the loop  $\parallel: C G B Em \parallel$  *in aeternam*. Now, students of conventional music theory are expected to identify the key of any tonical music they are asked to analyse. One obvious clue in euro-

20. The contradictory expression 'uninterrupted "interrupted" cadence' is intended to highlight the absurdity of applying euroclassical cadence nomenclature to non-euroclassical musics. 'Pre-' and 'post-tonal' are included here as jokes on those nonsensical terms.

classical music is of course the final chord of the piece but in example 4 that clue would be quite misleading because the recording spends more time in A major than F# minor even if it cadences each verse and the whole performance on the latter. With the fade-out over a G↔Em shuttle in example 5 and with the constant loop of example 7 the notion of a single tonic becomes even more untenable. As Carlos Vega noted (1944: 160) with reference to *criollo* song:

‘No hay melodias en mayor y melodias en menor: hay simplemente melodias bimodales’.<sup>21</sup>

Bimodality is common in many popular styles from Latin America and the British Isles. Apart from the I↔vi or bIII↔i shuttle of examples 5 and 7, another variant of harmonic bimodality in Latin America is the familiar harmonic minor loop  $\parallel: i\ iv\ V\ V:\parallel$  (e.g. F#m Bm C# in ex. 8, b. 1-12) which, when the poles are reversed from ascending to descending (e.g. F#m E D C#, ex. 7, b. 13-16) becomes a phrygian sequence in C# (iv bIII bII I).<sup>22</sup>

Ex. 8. Carlos Puebla: *Hasta la victoria* (1965): *æolian* and *phrygian*.

The musical score for 'Hasta la victoria' is presented in three staves. The first staff contains the melody with lyrics 'A-pren-di - mos que-er-te desde la hist-ori-ca al-tu-ra don-de el sol de tu bra-vur-ra'. The second staff continues the melody with lyrics 'le puso un cer-co a la muerte. A - qui se qued - da la cla - ra, la en-trañ-a-ble trans-par-'. The third staff concludes the melody with lyrics '-en - cia de tu que-ri-da pre-senc-ia, Com-and-ant-e Che Gue-var - a.' Chords are indicated above the notes: F#m, Bm, C#, F#m, Bm, C#, F#m, C# in the first staff; F#m, Bm, C#, F#m, C#, F#m in the second staff; and C#, F#m, E, D, C# in the third staff. The score includes various musical notations such as slurs, accents, and fingerings (e.g., 1, 3, 5, 6, 9, 13, 16).

The next example (no. 9, p. 21) is closer to my home (Yorkshire) and provides a different slant on the issue of bimodality. What is the tonality of this tune? What key or mode is it in? Well, if the start and ending plus the recurrence of open-fifth C dyads (C<sup>5</sup>) in the guitar part (bars 1, 3, 7, 11, 15, 16) are anything to go by, it's 'in C'.

21. = 'There are no major and minor tunes: there are just bimodal tunes'.

22. For more on *æolian*/*phrygian* reversibility, see Tagg (2009a: 227-234).

Ex. 9. Steeleye Span: *The Female Drummer* (Eng. trad., rec. 1971)<sup>23</sup>

vocal  $\text{♩} = 120$  C<sup>5</sup> B<sup>b</sup>5 C<sup>5</sup> B<sup>b</sup>5

I was brought up in York shire and when I was six-teen, I went

electr. guitar

5 B<sup>b</sup>5 G<sup>5</sup> C<sup>5</sup> G<sup>5</sup>

V. all the way to Lon-don and a sol-dier I be-came. With my

G.

9 F<sup>5</sup> B<sup>b</sup>5 C<sup>5</sup> B<sup>b</sup>5

V. fine-cap and feath-ers and my fing-ers long-and small-I could

G.

13 B<sup>b</sup>5 G<sup>5</sup> C<sup>5</sup>

V. play up-on the rub-a-dum the best of them all.

G.

Some of my music students have on first listening heard the tune as C dorian, even though no third, neither e $\natural$  nor e $\flat$ , occurs anywhere in the recording: it might just as well be mixolydian with no major third. In short, no-one in the classroom, including myself, is really sure how the piece's tonality should be denoted. Apparently hexatonic (c d f g a b $\flat$ ) and neither 'major' nor 'minor', it defies description using the sort of euroclassical music theory most of us have learnt. One way out of this conceptual impasse is to consider the tune as having *two* modes, each based on its own tonal centre: [1] as an anhemitonic pentatonic scale based on the tonic (c) and in-

23. C<sup>5</sup> = open 5th dyad C-g, B<sup>b</sup>5 = b $\flat$ -f, etc. The tune, as sung and as played on fiddle, varies slightly from verse to verse. The melodic line shown in ex. 9 is generic for the recording as a whole. The words are those of verse 1 only.

cluding heptatonic scale degrees 1, 2, 4, 5 and b7 (c d f g bb); [2] as a pentatonic major mode based on the first mode's subtonic (bb) and including the same five notes (bb c d f g) in relation to that bb as (heptatonic) scale degrees 1, 2, #3, 5 and #6, plus the additional hexatonic #7 (a#) as unstressed neighbouring note to the counterpoise on bb.<sup>24</sup>

Table 2. Configuration of tonal poles in *The Female Drummer* (ex. 9)

bar →	1	2	3	4	5	6	7	8
c	✓		✓				✓	
bb		✓		✓	✓	g		g
↑ tonal pole ↓	9	10	11	13	13	14	15	16
c			✓				✓	✓
bb	f	✓		✓	✓	g		

As shown in Table 2, the first mode, based on c, occupies bars 1, 3, 7, 11, 15 and 16 (6 of 16 = 37½%), while the second mode, with its tonal centre bb, is heard in bars 2, 4 (including the final a# in bar 3), 5, 10, 12 (including the a# upbeat) and 13 (16÷6 = 37½%). That leaves bars 6, 8, 9 and 14 (25%) which the guitarist marks with either the fifth above c (g in bars 6, 8 and 14) or the fifth above bb (f in bar 9). This sort of fluctuation between two tonal poles that I call the (MAIN) TONIC and the COUNTERPOISE (c and bb in example 9) is typical for many tunes from pre-industrial Britain and Ireland.<sup>25</sup> It can be configured in a large variety of ways to generate interesting patterns of tonal movement and of periodicity – regular or irregu-

24. The secondary mode might theoretically also be lydian, but I am unaware of any traditional melody from the British Isles being in that mode.

25. Another issue with ex. 9 is that my francophone Montréal students often identified it as 'Irish' or 'Celtic', even though the ballad, traceable back to the 1790s, was collected by Percy Grainger from a Yorkshire singer (c. 1910; rec. A.L. Lloyd and The Watsons in 1965) and despite the prominence of unambiguously English words in the lyrics like 'Yorkshire', 'London' and 'the Tower' [of London]. For more about this very English song, see *The Pretty Drummer Boy / Female Drummer* at [mainlynorfolk.info/watsonsonsongs/theprettydrummerboy.html](https://mainlynorfolk.info/watsonsonsongs/theprettydrummerboy.html) and *Soldier Maid* at [fresnostate.edu/folklore/ballads/DSoldma.html](https://fresnostate.edu/folklore/ballads/DSoldma.html) [131229]. The widespread North American notion of 'Irish/Celtic' tonality as positively 'other' and of 'English music' as negatively hegemonic and European is of course highly problematic (see *Scotch Snaps: The Big Picture* (Tagg, 2011a)).

lar, equal or unequal—that, judging from the difficulty I’m having in describing the phenomenon, seems to have no ready structural descriptors.

Moreover, while the B $\flat$  mode (b $\flat$  c d f g without the additional a $\natural$ ) has two relatively familiar names —anahemitonic MAJOR PENTATONIC or, to use Kodály’s terminology, DOH-PENTATONIC—, the pentatonic mode on c in example 9 —c d f g b $\flat$ — is virtually unknown in tonal traditions where the presence of heptatonic scale degree 3 is essential. Containing scale degrees 1, 2, 4, 5 and b7, it’s neither major nor minor but, as shown in Table 3 and continuing with Kodály’s naming system, RÉ-PENTATONIC (*ré mi sol la doh*). It covers a $\flat$  to a $\flat$  on the black notes of a piano keyboard (a $\flat$  b $\flat$  d $\flat$  e $\flat$  g $\flat$ ) or d to d (d e g a c) on the white notes. And what about the melody in bars 6, 8, 9 and 14, none of which can be unequivocally assigned to *either* ré-pentatonic mode 1 *or* to hexatonically extended doh-pentatonic mode 2 even if the tune in those bars theoretically fits both? Are we perhaps hearing part of a G minor pentatonic mode (la-pentatonic on g) in bars 6, 8 and 14, and an F major pentatonic mode (do-pentatonic on f) in bar 9? The guitarist clearly seems to be hearing things that way in those bars. The question is how these variants of the two underlying pentatonic modes and the shifts in tonal nuance they produce should be denoted. I don’t know. Does anybody?

Table 3. The five anahemitonic pentatonic modes

Mode name	Black notes only	Heptatonic scale degrees	White notes
doh-pentatonic	<b>g<math>\flat</math></b> a $\flat$ b $\flat$ d $\flat$ e $\flat$ [g $\flat$ ]	1 2 #3 5 #6 [8]	<b>c</b> d e g a [c]
ré-pentatonic	<b>a<math>\flat</math></b> b $\flat$ d $\flat$ e $\flat$ g $\flat$ [a $\flat$ ]	1 2 4 5 b7 [8]	<b>d</b> e g a c [d]
mi-pentatonic	<b>b<math>\flat</math></b> d $\flat$ e $\flat$ g $\flat$ a $\flat$ [b $\flat$ ]	1 b3 4 b6 b7 [8]	<b>e</b> g a c d [e]
sol-pentatonic	<b>d<math>\flat</math></b> e $\flat$ g $\flat$ a $\flat$ b $\flat$ [d $\flat$ ]	1 2 4 5 #6 [8]	<b>g</b> a c d e [g]
la-pentatonic	<b>e<math>\flat</math></b> g $\flat$ a $\flat$ b $\flat$ d $\flat$ [a $\flat$ ]	1 b3 4 5 b7 [8]	<b>a</b> c d e g [a]

Numerous other questions of structural designation arise from the problems just discussed. For example:

- How do the two *thirdless anhemitonic pentatonic modes on sol and ré* (db-db and ab-ab respectively on the piano's black notes) relate to principles of *quartal harmony*?
- How can different *quartal chords* be denoted, also in abbreviated form, instead of being mistakenly identified in tertial terms like *sus4* when harmonic suspension is neither intended nor heard? Are indications like  $C^5$  (open fifth dyad c-g), or  $C^{4,5}$  (triad c-f-g),  $C^{2,5}$  (triad c-d-g),  $C^{4,5,b7}$  (tetrad c-f-g-bb) of any use, or can such chords be labelled more efficiently?
- Why do *hexatonic modes* seem to lack labels when each of the seven diatonic heptatonic modes has its own name?
- Could the Guidonian *hexachord* be of any use in the systematisation of hexatonic modes and, if so, how? Or should we be thinking in terms of Arabic, Persian or European medieval *tetrachords*, or of hand shapes on stringed instruments?
- How useful might Glarean's *hypomodes* be in understanding the different types of bimodality of examples 4-9?
- Could the concepts of *vadi* and *samvadi* in the theory of classical music from Northern India be applied in any useful way to the dynamic between what I call *main tonic* and *counterpoise*?
- What do we call tertial ionian tonality in the euroclassical tradition and how do we conceptually distinguish it from the tertial ionian tonality of tunes like *La Bamba* or *Guantanamera*?

I don't have answers to any of these questions and look forward to suggestions from others struggling with similar problems.

## **Form**

### *Syntax and diataxis*

According to the *Oxford Concise English Dictionary* (1995), **FORM** means the shape or pattern into which different parts or elements are arranged, ordered, or otherwise combined into a whole. For example, the three words in the two sentences *Tim hit Tom* and *Tom hit Tim* have the same form —subject - verb - object— but different meanings. In this instance form is a matter of English-language syntax created by presenting the constituent elements in a particular order. Syntax also exists in music in that, for example, melodic phrases consist of at least two motifs (Tagg, 2000a: 289-295).



Ex. 10. Mozart: Symphony no. 40 in G minor (K550), I: (a) start of first theme; (b) commutation using same syntax; (c) different syntax

Examples 10a and 10b are, as meaningful statements, as different as *Tim hit Tom* is from *Tom hit Tim*. At the same time, just like *Tim hit Tom* and *Tom hit Tim*, examples 10a and 10b share a common syntax consisting of a repeated initial motif followed by a different terminal motif highlighted by the preceding repetition.<sup>26</sup> Example 10c, on the other hand, uses another syntax featuring initial and terminal motifs of equal duration without repetition. It's a different musical statement not just in terms of the ordering but also of the relative importance of its constituent elements.

Now, despite the dictionary definition of *form*, conventional Western music theory rarely considers such aspects of syntax in terms of *form*. Instead it uses FORM almost exclusively to designate the way in which episodes or sections rather than motifs are ordered along the unidirectional axis of passing time to create extensional patterns of musical change and recurrence like 'sonata form' or 'rondo form'. This long-term, linear, episodic, 'horizontal' or 'diachronic' sort of form needs to be distinguished from the 'short-term horizontal' type of form (syntax) operative in the construction of musical phrases. DIATAXIS was the least ambiguous word I could find to mark that distinction between those two types of form.<sup>27</sup> But that is neither the only nor most important reason for

26. See 'Propulsive reiteration' in Tagg (2013: 518-520).

27. *Diataxis* [daiə'tæksɪs; fr. Gk. διάταξις] means 'order of service' in Byzantine Orthodox liturgy. As a chronological ordering of constituent episodes into an overall form, *diataxis* can be used to designate what concepts like 'sonata form' and the '32-bar AABA jazz standard' have in common. See also fnnt. 31, p. 28.

having to come up with a new term. Contemplating a bush may help explain why the neologism was necessary...

### *Syncrisis*



Fig. 1. Mushroom bush

The bush on the left is shaped like a mushroom. Its constituent elements — branches, twigs, leaves, etc.— have been intentionally cut and trimmed (arranged) into a particular FORM. It may have taken years to produce that form but its perception as a ‘mushroom form’ is pretty immediate.

Form in conventional painting, sculpture and photography has no diachronic aspect because perception of its constituent elements does not unfold over time, as in music, dance or film. Form in the visual arts is usually called ‘composition’<sup>28</sup> and refers to the synchronic arrangement of a work’s constituent elements which are, so to speak, fixed on the canvas, or in the sculpture or photo. Neither those elements nor the form in which they are presented change once you start viewing the work, even if you interpret them differently the longer or more attentively you look, or if you view the work in a different context or under different circumstances. Among the parameters defining form (‘composition’) in the visual arts are size, proportion, perspective, positioning and orientation of constituent elements, the viewer’s point and angle of entry, colour, negative space, contrast, symmetry and lighting.

Several of the parameters just enumerated are relevant to music, not least the *synchronic placement and relative importance* of constituent elements. As I’ve suggested elsewhere (Tagg, 2013: 235), explanations of musical semiosis need to consider several individually meaningful layers that sound *simultaneously*. These composite layers of simultaneously sounding musemes — museme stacks— constitute *form* within the limits of the extended present.<sup>29</sup>

28. Since *composition* has a particular meaning in music studies —the musical work— it cannot be used to denote musical *form*, since that is only one aspect of (musical) composition.

The museme stack shown as example 11 lasts four seconds (8 beats at  $\text{♩}=120$ ), well within the limits of the extended present. It's heard 16 times, with a few variations, in the recording before it's replaced by a slightly different groove. It has by definition a form because it contains several constituent elements —the  $\text{♩} \text{♩} \text{♩}$  ♯ on guitar and bass,  $\text{♩} \text{♩} \text{♩} \text{♩}$  on violins and flute,  $\text{♩} \text{♩} \text{♩} \text{♩}$  on trombones plus hi-hat and kick drum patterns (not shown)— all arranged into an identifiable whole (Gestalt) that repeats as a single unit. This sort of form is neither short-term syntax nor diataxis. Since it's perceptible within the limits of the extended present —typically as a composite of aurally staged, simultaneously sounding motifs, riffs, chords, instruments, voices, timbres, pitches, rhythms, etc. in a particular metre at a particular speed and dB level— it can be considered synchronic.

Ex. 11. Museme stack (excl. drumkit) in *Shaft* (Isaac Hayes, 1971)<sup>30</sup>

29. EXTENDED PRESENT (a.k.a. 'present-time experience' and, misleadingly, 'specious present'). As a duration the extended present lasts no longer than a musical phrase (exhalation), or a few footsteps, or a short gestural pattern, or a few heartbeats. It's a duration experienced as a single unit (Gestalt) in present time, as 'now' rather than as an extended sequence of musical ideas. The extended present can also be imagined as the human brain's equivalent to a computer's RAM where information is processed immediately, rather than as its hard drive (longer-term memory) where access and retrieval times are longer. For further explanations, see Tagg (2013: 19-20, 272-273, 588).

30. The extract starts at 1:44 in the recording. Transcription in Davis (2005: 299).

Moreover, since stacking (as in ‘museme stack’) implies height rather than length (‘museme string’), this synchronic type of musical form can also be thought of as more vertical than horizontal, more intensional than extensional. It takes the form of a state more than of a process or narrative, even though it can contain elements of short-term syntax. If this sort of form, a composite of ‘now sounds’, is neither syntax nor diataxis, what can we call it? I’ve opted for the word SYNCRISIS.<sup>31</sup>

### *Summary (‘form’)*

To summarise, it’s essential to consider at least three types of musical form. I distinguish between them as follows.

1. SYNTAX denotes aspects of form and signification bearing on the temporal relationship of constituent elements. It usually covers the short-term ordering of elements inside the extended present.
2. DIATAXIS is the long-term, diachronic, processual, episodic and extensional ordering of events over durations exceeding that of the extended present. It can be thought of in terms of overall NARRATIVE FORM,<sup>32</sup> and as ‘horizontal’ rather than ‘vertical’. In conventional Western music theory diataxis is usually called ‘form’, as if no other type of musical form existed.
3. SYNCRISIS denotes aspects of form and signification bearing on the synchronic, intensional, arrangement of structural elements inside the extended present. It can contain elements of short-term syntax and be thought of as vertical stacking rather than as a horizontal array.

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31. SYNCRISIS [ˈsɪŋkɹɪsɪs], from Ancient Greek σύγκρισις, means a putting together, an aggregate, combination, etc., from the verb συγκρίνω = to combine, compound, etc. While native speakers of English might have preferred expressions like ‘stack form’ or ‘now form’ to *syncrisis*, and ‘string form’ or ‘narrative form’ or ‘episodic form’ to *diataxis*, those more popular-sounding terms have three disadvantages: [1] they are longer; [2] they are not easy to use adjectivally or adverbially (unlike *syncritic[ally]* or *diatactical[ly]*); [3] they are more difficult to translate satisfactorily into other languages.
32. NARRATIVE *n.* ‘a spoken or written account of events in order of happening’. MUSICAL NARRATIVE means the overall presentation of musical events ‘in order of happening’.

Conventional Western music theory's conceptual monopolisation of 'form' is similar to its hijacking of 'tonality'. The main difference is that while the conceptual falsification of tonality gives rise, as I explained earlier, to a seriously flawed terminology — 'tonal' versus 'atonal', 'modal', 'pretonal', 'post-tonal', etc. —, its inability or reluctance to deal with types of form other than diataxis constitutes an error of *conceptual omission*. Particularly worrying is its *neglect of SYNCRISIS*, more precisely the theoretical tradition's failure to conceptualise FORM as an important dynamic, kinetic, synchronic, intensional, textural, tactile, spatial or 'vertical' *state* contained within the extended present (syncrisis).<sup>33</sup> There is in other words no good reason why narrative *processes* in music (diataxis) should be prioritised at the expense of music's dynamic *states* (syncrisis), especially in relation to musics where the latter, rather than the former, is of primary interest.

### *So what?*

Although I've tried to suggest solutions to some of the problems discussed above, much of this text consists of questions and 'DON'T KNOWS'. I've been unable here to discuss the description of timbre, vocal persona, or periodicity and I've done no more than skim issues of tonality and form. There are clearly many more issues of structural conceptualisation left to confront.

I hope nevertheless to at least have clarified how unreasonable and misleading it is to use terms like dominant, subdominant, perfect cadence, half cadence and interrupted cadence when describing tonality in the countless pieces of widely heard music in mixolydian, dorian, æolian or phrygian modes, where 'half cadences' and 'interrupted cadences' are often final, and where major tertial triads on scale degree 5 (V) are either altered from mode-specific minor triads or non-existent? In mixolydian, dorian and æolian rock harmony, for example, a 'dominant' tertial triad is most likely based on the fourth (IV, the 'subdominant' in euroclassical music

33. See Tagg (2013: 272-273, 383-385, chapter 12, esp. pp. 417-425). The notion of *texture* covers no more than one aspect of syncrisis.

theory) and a ‘subdominant’ chord on the unaltered subtonic (♭VII) which, according to the music theory I was taught, apparently either has ‘no function’ or is a ‘subdominant to the subdominant’ which cannot exist because there is no dominant to which it can reasonably be ‘sub-’. In short, difficulties in the structural designation of non-euroclassical tonality can be crippling. It ought also to be clear that notions of form are problematic because, as we just saw, only one of three main categories – diataxis – qualifies as ‘form’ in conventional ‘music theory’, while the other two – syntax and syncrisis – are at best sidelined, more often ignored.

‘But do these problems really matter?’, objects my populist muso alter ego. ‘After all’, he argues, ‘we’re talking about music that is played, heard and felt. And besides,’ he says, ‘if you start to codify it you’ll just end up with another set of fixed rules that can be taught year after year in the academy. That’ll be no better than the system you’re currently criticising’.

My musician devil’s advocate is both right and wrong. He’s right to point out the dangers of institutionalised codification but wrong to single out codification rather than its institutionalisation as the problem. Obviously, codified ‘rules’ extrapolated from existing practices easily become ‘fixed’ and normative if they are used to maintain a status quo of power established after their introduction into the institution. Among mechanisms conducive to such entrenchment are: [1] managerial inertia and short-term cost-cutting (the same courses with the same teacher is cheaper and less hassle); [2] not giving teachers enough time for research and innovation (it’s more profitable to teach more students with fewer teachers); [3] discouraging or marginalising teachers who might upset the apple cart; [4] preoccupation with league-table scams that force institutions to conform to a relatively homogeneous set of activities so as to facilitate comparison on a scale of quantifiable ‘excellence’ (a conservative mechanism intrinsic to the magic market’s credo of ‘free’ competition). In addition to those four points it should also be remembered that teachers and researchers have to earn a living by working in such institutions,

that they need to pay their rent or mortgage, send their children to school, etc., and that a few colleagues may have personal problems relating to careerism, self-aggrandisement, financial gain, positions of power, etc. All these factors mean that the risk of epistemic entrenchment and inertia is high. Indeed, my muso alter ego is right in that such mechanisms of institutionalisation are prerequisites for the terminological chaos criticised in this article. However, as I try to explain by way of conclusion, none of this means that necessary terminological reform is either dangerous or pointless. On the contrary.

If the tonal and formal practices of music other than the euroclassical and its offshoots remain uncodified, the terminology of conventional euroclassical music theory will stay unchallenged and continue to marginalise, trivialise or falsify any type of music exhibiting important traits for which it has either flawed concepts or no concepts at all. Not only would that prolong the undemocratic disrespect and ethnocentric ignorance it seems to show towards so many musics used by a majority of the world's population; it would also, as I argued earlier, obstruct efforts to understand what made the musical tradition on which it based that same terminology both interesting and influential. Moreover, even though no-one can possibly understand every musical tradition existing at any time anywhere in the world, less inadequate concepts of musical structuration can at least give us a better chance of understanding how different types of music actually work. For example, insight into the dynamics of phrygian tertial harmony, as used by *flamenquistas* like Sabicas (n.d.), or by Carlos Puebla and his *son* musicians (ex. 8), or by Chilean *cueca urbana* band Los Trukeros (2007), or by a whole host of popular musicians in the Balkans, could have prevented at least one otherwise gifted young guitarist from attaching an extra 'perfect cadence' (E→Am) to the end of a *malagueña* performance that he had already ended with a resoundingly final  $\flat II \rightarrow I$  phrygian cadence (F→E), complete with its three simultaneously descending leading semitones (c↘b, a↘g#, f#↘e).<sup>34</sup>

### *Final reflexions*

This article has dealt with only a very small number of conceptual problems in conventional euroclassical music theory. Despite difficulty in presenting some structural points because I could find no vocabulary with which to designate them, I chose to limit the discussion to a few aspects of tonality and form for two interrelated reasons. The first is purely logistic in the sense that tonal and formal parameters are easier to put into the scribal form intrinsic to the medium of this text than are parameters of, say, timbre or aural *mise-en-scène*. The other reason is that conventional music theory has developed numerous terms to denote tonal and formal features specific to the euroclassical repertoire, fewer to denote those relating to time, speed, rhythm, metre, periodicity, etc., and far, far fewer to denote aspects of timbre and spatiality. Tonality and form are in other words areas of study in which music theorists are supposed to excel. I ought in other words to be able to assume that they will fully understand what I write or say on the topic. But will they?

Having, in October 2011, given the first live presentation of ideas contained in this text, I can report that reactions were in general encouraging on fourteen of sixteen occasions.<sup>35</sup> On one of the other two occasions (a depressingly conservative international music analysis conference) I was met with compact silence. After my talk, a helpful research student told me in the corridor that most participants thought I was causing unnecessary trouble and that they just wanted to regress into the ‘business as usual’ of their

34. Æolian-phrygian bimodality is discussed in Tagg (2009a: 227-234) and illustrated in Tagg (2009b) which also includes the bizarre ‘perfect’ cadence add-on. Phrygian final cadences are of course two a penny in tertially harmonised music from the Balkan, for example in such popular recordings as Alexiou/Αλεξίου (1976), Er Malyk/Ер Малък (1992), Málamas/Μάλαμας (2006). See also Pennanen (1997) on tertial harmony in Greek *rebetika* and *laika* music.
35. Between October 2011 and August 2013 I gave presentations relating to this text at conferences in Rome, Edinburgh, Granada and Cáceres, as well at university schools of music and/or media in Glasgow, Aarhus, Durham, Newcastle, Liverpool, Lancaster, Nottingham, Huddersfield, Cambridge (Anglia Ruskin), Keele, Trento, Turin, Paris, Nantes and Santiago de Chile.



ivory towers. The other negative experience was at a postgraduate seminar in a university music school where I spoke to an audience of three. On that occasion I learnt from one of the three that my ideas were likely to be interpreted as an attack on the authoritarian intellectual agenda promoted by influential members of staff at the institution.<sup>36</sup> In both instances I was clearly living on an epistemic planet radically different to that inhabited by the intellectually or literally absent audience.

The other fourteen occasions were decidedly less alienating. That does not mean I met no critical comments in discussions following my presentation. For example, one student feared that cleaning up the terminology would just create another set of useless rules that students would have to follow. On another occasion, a senior professor of composition expressed a different kind of scepticism. 'Of course you're right and what you say is perfectly logical', he said, 'but there's not a hope in hell that anything will come of it!' That comment seemed quite realistic in the light of what I'd experienced on the two occasions sketched on the previous page. I was, however, able to assure him that I would not be dissuaded from efforts to bring some semblance of reason and socio-ethnic justice into the terminology of music theory. I've drawn considerable encouragement in this quest from the sort of reactions summarised below.

At one seminar an experienced teacher recounted his embarrassment at having to use, as he put it, the 'stupid word *atonal*' when teaching composition and the history of twentieth-century music. 'TONICAL', he agreed, might solve that problem. Elsewhere, those with experience in music outside the euroclassical and avant-garde spheres tended to go straight to the heart of the matter, several of them raising specific questions about designating particular structural features of non-euroclassical tonality. In fact the discussion of tonality in *The Female Drummer* (example 9 in this

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36. The two conservative agendas were: [1] old-style musical absolutism (see Tagg, 2013: 83-100); [2] 1990s-style poststructuralist theorising, i.e. the sort of meta-contextual absolutism critiqued in Tagg (2013: 101-115).

text) is largely the result of a question asked in the seminar at Glasgow University and of subsequent email correspondence with the member of staff who asked it.<sup>37</sup>

At Glasgow, with its strengths in composition and performance, at the Aarhus music department with its attachment to the university's School of Media, as well as on all the other twelve occasions, several teachers and students wanted to discuss other ways in which music theory might be reformed. Of particular importance, they thought, was the development of concepts denoting aspects of timbre, kinetics, tactility and spatiality, a vocabulary acknowledging the vernacular competence of the listening majority who are exposed to an average daily dose of music lasting more than two hours.<sup>38</sup> I agree with them and have elsewhere suggested ways in which musicology can contribute to that sort of development.<sup>39</sup> Nevertheless, there can be little doubt that music theory, as it is still widely taught, is in need of terminological reform that opens up to all sorts of music and that such reform goes hand in hand with the interdisciplinary and democratic process requested by many of those I met when speaking about this topic.

Most recently (late July, 2013), I sent a short statement about the need for terminological reform to the IASPM email list.<sup>40</sup> Here are just a few of the comments I received from 34 individuals in 14 nations, in answer to that statement.

'I've taught analysis in my [Latin-American] university for 25 years and I've met the same problems as you... We even tried to set up a musical terminology commission ten years ago but' ...

'I'm interested in developing appropriate discourse for subtle variations of intonation in... traditional music and trying to break free of a general analytical hierarchy. Popular music should never have been tackled as it were 18th-century western art music.'

'I'd like to see... a radical movement in multimodal semiotic anal-

37. Thanks to Dave McGuinness ([davidmcguinness.com/](http://davidmcguinness.com/) [2013-02-18]).

38. See Chapter 1 in Tagg (2013) for statistical details.

39. See Chapters 6 ('Intersubjectivity'), 10 ('Notes on Vocal Persona') and 12 ('Analysing Film Music') in Tagg (2013). See also stage 5 (p. 5) in this article.

40. IASPM: International Association for the Study of Popular music [iaspm.net](http://iaspm.net).

ysis which... sweeps away the... terminology of Euro-American musicological theory and starts from the work [some authors] have already done in pointing out an... egalitarian terminology for a social semiotics of music.'

'“Music theory” itself needs rethinking... I'm interested in how the musical vocabulary of other languages addresses these areas.'

'I was raised in a wide range of musical traditions. Then I recently studied musicology, so had to confront all those [strange terms]... Well, with the [local/regional/national] musical traditions I know... Wow! A lot of those terms just don't work at all.'

'I'm a teacher... interested in the reform of music teaching in secondary schools... The concepts/elements of music are becoming more central to music education and teachers here don't know what they really are nor how to teach them. I'm keen to help build clarity on this!'

I still find myself emitting sighs of despair and disbelief each time I read or hear TONAL opposed to MODAL, TRIADIC instead of TERTIAL, etc. I also find it depressing to read or hear FORM used to designate the order of the music's episodes and nothing else. That said, I have to admit that I'm probably more frustrated with myself than with those who still perpetuate such conceptual falsehoods because, with my 'unusually eclectic' musical background,<sup>41</sup> I was better placed much earlier in life than those with a more exclusively euroclassical upbringing to register the problems and to try and solve them. The fact that it took me nearly thirty years to do so to any significant extent is shameful and I can offer no valid excuse for such sluggishness. However, now that some of the basic problems are out in the open, I would urge everyone in music education and research to think at least twice before applying any concept of structural designation to any type of music if those concepts derive from conventional euroclassical music theory. After all, whereas I may have been 'unusually eclectic' in 1971, I am, if the students I've met since the late 1980s are anything to go by, no longer the exception but the rule. It would simply be embarrassing, if nothing else, for music studies to per-

41. See stage 1 at the start of this article (p. 2).

sist with its illogical, undemocratic, outdated, ethnocentric and muddle-headed ‘business as usual’. I think it’s high time for ‘music theory’ to grow up and to embrace social and musical realities in the real lives of real people.

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### Notes

This appendix contains *all* types of reference.







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- ☰ bibliographical source (written word). ☐ audiovisual source;
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- Dates of access to materials on the internet, including YouTube files, are expressed in the format *yymmdd* so that, for example, [111111] means 11 November 2011, [100521] 21 May 2010, etc.

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