

Fixed and Movable Do

In Our Eurythmy: Does it Matter?

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In this article we will be entering the laws of music. Please take up the discussion gently! If it begins to go beyond your current comprehension, something further on might help you toward clarity. Make notes and keep working on any trouble spots; for this is a code that we must crack in order for our eurythmy to thrive! I hope that what I am laying out here can help us all take a big step forward.

Concerning fixed and movable do

Are you acquainted with the “Do-Re-Mi” song in the film, “The Sound of Music”? Maria von Trapp opens it: “Let’s start at the very beginning, a very good place to start. When you read you begin with [one of the seven children answers] A B C!” She continues, “When you sing you begin with ‘do re mi.’” She then sings up the steps of the scale from ‘do’ to ‘ti,’ but stops, leaving the scale unfinished! Then she sings the song: “Doe, a deer a female deer; ray, a drop of golden sun” What is she doing? She is introducing the children to the **archetype of the scale**: through her, this large von Trapp family began to enter the fundamental structures and formation of music via the gateway of **solfège** – by singing songs with the ‘**do re mi fa sol la ti do**’ syllables. By following each melody’s unique manner of visiting the scale steps, the children could begin to experience the *inaudible* structure of our **tonal** music and not merely learn pitches. ‘*Tonal*’ means that the music is structured in relation to the pitch-tone that serves as the first step of the given scale, which in turn serves as the tonal center of the given key. This first step is called the **tonic**. It is also called the **prime** – it is so *primary*. **Scale-steps** are also called **scale-degrees**.

When the ‘do-re-mi’ syllables are applied to the scale of a tune or composition such that the note that serves in the role of the first step of the scale is expressed as ‘do,’ this is called **movable-do solfège**. The Christmas song, “Joy to the World,” might be simple enough for us, that with the help of singing in solfège we can begin to perceive and experience how melodies traverse the scale steps. We can even write such a tune using only rhythmic notation and barlines, merely showing the relative pitch and the solfège syllable for the scale step of each note, as is done here. Do try to get the feel of singing the syllables. The lyrics go: “Joy to the world, the Lord is come, Let earth receive her King; Let ev’ry heart prepare Him room; Let heav’n and nature sing, (repeat), Let hea–v’n and hea–v’n and nature sing.” (Note: I use the numbers 1 through 8 instead of ‘do-re-mi’ syllables.

Numbers are better in the long run, since they agree with the way that the laws of music are communicated.)

Singing the song in this manner with movable-do solfège, you can begin to find your way within the structure of our archetypal scale and explore its nature. What do you feel when the melody leaves octave-do? What do you feel when it goes to prime-do? Does it ever seem to delay going there? If a melodic pattern of notes – a **motif** – sounds at one place in the scale and repeats at another, what is that like? *We can begin to feel the tensions and releases in the melody in relation to the scale.* And in movable do, if we change the starting pitch to suit our vocal range, the singing of the syllables remains the same: the inaudible archetype of the scale structure holds sway regardless; and we clearly express its first step with ‘do’ (or 1), and so on up the scale. Its integrity is preserved in our experience and expression.

But in **fixed-do solfège**, the syllable ‘do’ is fixed to the pitch-tone that we call ‘C.’ This is convenient because the C-scale is the one we customarily notate cleanly without using symbols for ‘sharps’ and ‘flats.’ The sequence of do-re-mi syllables is then assigned to the audible C-scale pitches. Hence, the above solfège for this song would be correct when the start pitch is the pitch ‘C.’ But what happens if we change that start pitch to the one we call ‘A’?



The pitch ‘A’ must be sung as ‘la,’ its fixed syllable in the C-scale; and for the piece the scale must now be spelled: A B C# D E F# G# A. In fixed-do solfège, the do-re-mi syllables are altered for these pitches that are notated with sharp or flat signs: the vowels brighten to ‘ee’ or darken to ‘ay,’ respectively; so to ascend the ‘A’ scale, with C#, F# and G#, the solfège here will have to be: ‘la ti **di** re mi **fi** si la.’ (To use numbers, the vowels can likewise change. A chart for **fully-chromatic numerical solfège** is in my article, “The Scale Degree Intervals Give Rise to our Tonal Music Gebilde.”)

We must explore these two approaches by singing them and comparing what we feel and observe. In our musical experiences and schooling we have grown up with this **archetypal tonal scale structure**. It is something that we feel one with in our etheric body and it feels wholesome. How do we feel, then, when we sing the syllables that reflect

this structure in their proper order *versus* when we sing them in a different ordering, in which ‘do’ is no longer the prime? Can we keep our bearings relative to our experience of the archetypal structure? I find that I cannot: my singing of the fixed-do syllables defies my attempts to feel sure of this structure and to know where I am in it. I have lost my mooring. *Since I know the song, my singing continues to adhere to the structure; but I am rudely disconnected from it; and I must now engage my mind in order to determine which note is which scale degree!* I wish I could make the syllables so rote that I could ignore them, for they do not help my experience. This is fixed do. It does not reflect the structure of the scale that informs the melody. (Note: with years of experience using movable and fixed do, the composer and choral director, Michael Kaulkin, concluded that “over time, using [fixed do] may teach students by rote how to sing the notes, but it will not teach them intervals. It will not teach them anything about harmony or function, to say nothing of voice leading [as in fugues]....” See “The Case for ‘Movable Do’” on the internet.)

So, what relevance do the practices of movable do and fixed do have in relation to our usual approach to the scale in music eurythmy expression?

In *Eurythmy: Its Birth and Development*, on p. 71 we see the drawings that were made on August 23, 1915 when Rudolf Steiner presented a sequence of **angle-gesture expressions** for the inner experience of the musical scale; and in ascending order he named the gestures: “Prima, Secunda, Terza, Quarta, Quinta, Sexta, Septima.” Clearly, these are the rungs of the **scale-ladder**, the ‘Tonleiter’; so they can of course be called ‘do re mi fa sol la ti,’ or called by the numbers 1 through 7.

What is the most striking aspect of this sequence of gesture-expressions that Rudolf Steiner presented? *There is a strong dynamic of opening and closing carried out by the arms, during which the legs stay quiet from the prime to the 4th, and then become remarkably energetic in expression of the 5th, 6th and 7th – they spring apart! – and then they cease their activity in a sense of resolution as the arms close upon reaching the octave (8ve).* Here are the archetypal musical roles and qualities within our archetypal scale in its **major mode** revealed in movement expression. Everything occurs in relation to the prime and its achievement at a higher level in the 8ve. Later, Rudolf Steiner added the use of bent angles (much more about these will come below). For the **minor mode** of the scale, the angle-gestures he presented are straight, just as for the major; but they are carried out below shoulder level; and the jumping effort is in the down-and-forward direction and greatly hampered.

We might ask, why did Rudolf Steiner name the gestures ‘prime 2nd 3rd 4th 5th 6th 7th’ rather than fixing these gestures to specific named pitch-tones? It is a revealing fact that at the opening of *Eurythmy as Visible Singing* (*EVSing*; *Eurythmie als sichtbarer Gesang*, *EsG*), he spoke of

the phenomenon of the scale in the singular (feminine): he said, “die Skala.” He did *not* speak of a multiplicity (plural, Skalen or Skalos). We have *one* scale; it has two modes: major and minor. The scale structure of ‘prime-2nd-3rd’ and up to the 8ve applies regardless of what the pitch-tone is that serves as the prime. And as regards letter names and pitches, in *EVSing*, Lecture 4 (3/7 in; *EsG* 96) he said that to lead up the scale, “obviously one can indeed write any note on [auf] a C” – i.e., write it as a C on the staff (on the C-line or in the C-space). His orientation was obviously movable do. There, he stated clearly that he made ‘C’ the start of the scale and used its notations or designations *by custom*. In so doing, he did not thereby fix the scale to the pitch ‘C,’ nor did he fix the angle-gestures to it. However, in her booklet, *From the Tone Eurythmy Work* (*FTE*, p. 8), Elena Zuccoli (founder of the Eurythmeum Zuccoli in Dornach, Switzerland) noted something reported by Rie Lewerenz, that in a general conversation about music, Rudolf Steiner had said that “C is always the prime.” *Yes, absolutely so in the elucidation of musical laws, such as in music theory where ‘C’ is always used as the model prime in major (just as ‘A’ is in minor), to make the laws that apply to all keys transparent.* And indeed this context is likely. Elena Zuccoli also mentioned the composer, Wilhelm Lewerenz,* and it could well be that he was also present at this reported conversation. *(*FTE* 36. An “Andante” for cello by Wilhelm Lewerenz was performed in Dornach, April 26 and 27, 1924. Programs have been published in *The Early History of Eurythmy*, *EHE*; p. 241.)

In **MOVABLE-DO** expression with the angle-gestures, the prime-angle will always express the prime of the scale and key. The 2nd-angle will always express the 2nd-of-the-scale and key; and the 3rd-angle will express the 3rd, and etc. And in our tonal music this will mean that we will express the opening scale and key of every piece with this sequence of gestures which Dr. Steiner presented, *doing so in accord with our direct experience of the archetypal roles being unfolded by its scale members, prime through 8ve.*

However, pieces often stray from their home key – which is called the **tonic (I)** of any given piece – journeying away from it to visit other keys. This is the beauty of our tonal music: the tonic key of each piece is in fact a place of origin for a complete circle of twelve interrelated keys, an archetypal structure known as the **Circle of Fifths**. *And this prime/tonic–scale–key–Circle-of-Fifths structure is what characterizes our tonal music in its most complete sense (as opposed to music which attempts to have no tonal center, or simply lacks a center).* *When a piece undertakes a tonal journey of transitions, modulations, to sojourn in one or another key in its Circle, movable-do gesture-expression will always convey the archetypal scale experience within each scale and key that is visited during the journey away from and back to the home key, the tonic, regardless of what the written key is at any given moment in that journey.*

So how do these journeys away from the established home scale of a piece come about? Really, any one of the pitch-tones that are currently serving as members of the existing scale *could* serve as a new prime for a new scale. We can take, for example, the pitch-tone which is serving in the role of the 5th in the existing scale and begin with it, to ascend a new scale. Working out of our grounding in the established home scale of the piece, we would most naturally take up the existing set of pitch-tones *exactly* as we find them in their existing roles. Hence, the new scale would ascend as 5th-6th-7th-8ve-2nd-3rd-4th-5th. Do try this. But how does this scale feel? Beginning with the 5th, the four members of the intended **lower tetrachord** of the new scale will unfortunately still be felt as rising from the 5th to the 8ve of the existing tonal scale. And even worse, moving upward into the intended new **upper tetrachord** with the 2nd-3rd-4th-5th will *not* be felt as ascending to the new 8ve. What should be the 7th is hanging back. What happened? (Note: if we are familiar with the Medieval church modes, we might recognize this scale structure as that of the Mixolydian mode. It does not reach up toward the 8ve.)

Tonal laws are at work. And this means that the scale must always tell us which member is the prime. This prime is the prime by merit of the fact that the *other* scale members ‘say’ so and support it in that role. But this has not happened here. As a lawful musical experience, *the 7th in particular* points to the prime (as 8ve-prime) so strongly that the role of the 7th has a name: the **leading tone**. The 5th scale-step also points to the prime very strongly; and its function has a name, too: the **dominant**. A melody will often move directly from the 5th to the prime or 8ve-prime, skipping over the scale members in between. In the intended new scale above, these two roles *must* be fulfilled in order for the new prime to be established; but neither role is fulfilled: the pitch-tone that would serve as the would-be 5th/dominant of the new scale is still felt as serving in the role of the 2nd in the existing scale. And the pitch-tone that would serve as the would-be 7th, the leading tone of the new scale, *is not even present* – it is not serving at all in the existing scale. Aha! Hence, to make the transition to this new scale, the new scale must ‘call forth’ this missing pitch-tone and bring it into service as its 7th/leading tone, which will then point to the new prime and establish the new scale. Then the pitch-tone which had been serving as the 2nd in the existing scale will be spurred to enter into service as the 5th/dominant of this new scale; and the other pitch-tones will change their functions as well. Once this happens and is felt-sensed-perceived, in movable-do gesture-expression the harmonious tonal structure of the new scale will be asserted, prime through 8ve.

Do we observe these phenomena happening in pieces of music? Indeed we do! Transitions from key to key are in fact set in motion when pitch-tones are sounded which serve

no normal role within the existing scale from prime to 8ve, but *do* serve a normal role in the scale-structure, the **scale-Gebilde**,* of another key. For the task of perceiving and bearing witness to these musical Gebildes and phenomena, *movable-do eurythmy has not only an immense capacity to express them in gesture and movement: in the process of achieving their vital expression we will become ever more aware of these tonal movements. With this help we will be able to enter and know the harmonious lawfulness of our tonal music on a deep, experiential level.* *(Rudolf Steiner had used this word, ‘Gebilde’ in reference to music. Stemming from the verb, ‘bilden,’ it refers to that which holds sway in the structuring, shaping, formation, creation, arranging, etc. of something – such as here in the structure of the scale. I find that the word cannot really be translated, so I propose to use it as-is. in English, for the plural we would add an ‘s’: singular ‘Gebilde,’ plural, ‘Gebildes.’)

So, during the transition to this scale that will begin with the pitch-tone that has been serving as the 5th/dominant of the existing scale, where in this home scale will the new, non-scale pitch-tone sound? It must sound between the 4th and 5th scale members, where it will serve as the new 7th, *leading to* the 5th-as-the-new-prime. But when this new 7th sounds, it could at first seem to be a momentary non-scale **passing tone** or **ornamental tone** – an event that we will typically express in eurythmy with a **bent angle**. But, in this case the non-scale pitch-tone heralds a modulation to the **key of the dominant (V)** – the first stage of a Circle-of-Fifths journey away from the home key (the tonic, 1) in the direction of the dominant. With sensitive perception we may detect that when this new pitch-tone sounds, we had expected to hear the pitch-tone that is serving as the 4th of the home scale: the new pitch-tone sounds instead of the 4th. Hence, in eurythmy when we make the bend in the 4th-angle to express this event, *we could even say that this bend expresses the breaking off of the relationship between the 4th and the prime in the home scale*, and that the way is opening for this new pitch-tone to be called into service in the critically-necessary role of the 7th in the key of the dominant. As its leading tone, it will now point to the pitch-tone of the 5th/dominant of the home scale of the piece as the new prime. And once it points to this new tonal center strongly enough, the relationships within the home scale *will all be vacated, abandoned*. Each pitch-tone is then called to its role in the new scale (e.g., the pitch-tone which had served as the 2nd in the home scale will serve as the 5th in the scale of the dominant; the pitch-tone which served as 7th will now serve as the 3rd). *With all of the relationships within the scale of the dominant settled, its prime will of course be expressed as prime with the prime-angle*. The transitional bent-angle expression of a non-scale-member in the home scale is no longer needed: that expression is in fact *obsolete*. *The revelation of the upper tetrachord role that*

this pitch-tone now plays as the 7th-in-relation-to-the-dominant leads directly to its expression as such with the 7th-angle. Normalcy in the entire scale-Gebilde of the key of the dominant is established; and all of its angle-expressions will now assert this through movable do.

The piece can journey a stage further in the dominant direction of its Circle of Fifths to establish a new key center on the 5th scale degree of the dominant – hence this key is called the **dominant-of-the-dominant (II)**. To do this, the same lawful process holds sway as in the modulation from the its home key to the dominant: a non-scale pitch-tone will sound between the 4th and 5th scale members of the dominant scale; a bend in the 4th-angle will herald the break in the existing 4th-to-the-prime relationship of the dominant scale, opening the way for this new scale; the relationships within the scale of the dominant will be *abandoned* when the new pitch-tone reveals itself in the role of the 7th of the new scale of the dominant-of-the-dominant and points strongly enough to the new prime. Normalcy in the scale-Gebilde of the dominant-of-the-dominant is then established; its prime is expressed with the prime-angle, its members expressed likewise up the scale in movable do.

By repeating this lawful process in the dominant direction, a piece could visit each member in its Circle of Fifths. And it need not visit the twelve sequentially: by summoning more than one non-scale pitch-tone, it could instantly travel two or more stages. To go directly from its tonic home to its dominant-of-the-dominant, the new scale would begin with the 2nd member of the home scale and call-forth two new pitch-tones to sound between the 4th and 5th and between the prime and 2nd of the home scale. Since we had expected the 4th and the prime, in eurythmy the bent-4th and bent-prime angles will be expressed – the latter breaking off the relationship of the existing prime to its entire scale in the home key! With the 4th-relationship and prime-relationship broken off, these two new pitch-tones then reveal themselves in the roles of the new 3rd and 7th, respectively; and the normalcy of the new scale is established and expressed.

Going the other direction in its tonal journey through its Circle of Fifths, a piece could modulate to a new key center on the 4th scale degree of its home scale. As this 4th scale degree can be found a 5th *below* the prime, it is called the **subdominant**. It plays a strong role in pointing to the prime of the scale, but with a different and softer quality than the dominant does. If we begin with the existing set of pitch-tones in their existing roles within the home scale, we ascend the new scale as: 4th-5th-6th-7th-8ve-2nd-3rd-4th. But feeling our way up through the 4th-5th-6th-7th as the intended lower tetrachord of the new scale, is everything all right? No. Something seems to go wrong when we get to the intended 4th member. It is rising away from the new prime rather than keeping tethered to it: this pitch-tone as the 7th

of the home scale is still reaching for its existing 8ve. Then, ascending through the last four members, 8ve-2nd-3rd-4th, the intended upper tetrachord closes with some sense of achieving the 8ve of the new scale – yet is the achievement satisfying? Not really; but why not? It gives the feeling of lacking the grounding in the lower tetrachord that it needs for this. Without this support it is not enabled to achieve the 8ve strongly;* hence, the new scale of the subdominant will need to call forth a new pitch-tone to serve in the role of the 4th, to ground its lower tetrachord. *(Note: if we a familiar with the Medieval church modes, we might recognize the scale structure that naturally results when the 2nd of the tonic scale is taken as the start of a new scale: the Dorian mode. It begins in minor mode and it does not reach up toward the 8ve.)

This non-scale pitch-tone that the subdominant scale calls forth will sound between the pitch-tones that are serving as the 7th and 6th members of the home scale, and we will typically express it with a (rounded) bent angle. With sensitive perception we may sense that we expected the 7th of the home scale at that moment. So in gesture we make a bend in the 7th-angle to express this event; *and we could even say that this bend expresses the breaking off of the relationship between the 7th and the 8ve in the home scale, depriving the home scale of its 7th.* The way is opening for this new pitch-tone to be called into service in the role of the 4th in the key of the subdominant (**IV**). Revealing itself in this role, it will secure the lower tetrachord of the new scale. Once it does this strongly enough, the relationships within the home scale *will all be vacated, abandoned*. Each pitch-tone is called to its role in the subdominant scale (e.g., the pitch-tone which had served as the prime in the home scale will serve as the 5th in the scale of the subdominant; the pitch-tone which served as 2nd will now serve as 6th, etc.). With all of the relationships within the scale of the subdominant settled, its prime will of course be expressed as the prime with the prime-angle. The transitional bent-angle expression of a non-member in the home scale is no longer needed: the bent-angle is in fact *obsolete*. The revelation of the lower tetrachord role that this pitch-tone plays as the 4th-in-relation-to-the-subdominant leads directly to its expression as such with the 4th-angle. Normalcy in the entire scale-Gebilde of the new key is established; and all of its angle-expressions will assert this in movable do. And just as in the dominant direction, a piece could journey through its entire Circle of Fifths in this lawful manner in the subdominant direction. (Note: if we are familiar with the Medieval church modes, we might recognize the structure that would naturally result if we begin a scale on the 4th of our established tonic scale. It is the Lydian mode.)

In summary: so beautifully, these lawful tonal movements, which might seem devoid of excitement on paper, can come alive through movable do when these pitch-tones that intrude into the existing scale reveal their activity in

service of a new scale – as the 7th of the dominant or as the 4th of the subdominant, etc. It can happen that these tonal shifts that lead from key to key in the Circle of Fifths of a piece might occur with no heralding: the new key simply begins – and movable-do expression will be attuned to this, too. All of these activities are aspects of the rich tapestry of formations and structures in our tonal music that Rudolf Steiner called the *Tongebilde* – the music-Gebilde, the *tonal-Gebilde* (*EVSing*, Lect. 1).

We come to know that our movement-expression is governed and called forth by the laws that govern the music itself. So beautifully, through movable-do expression each time a new pitch-tone sounds between the pitch-tones that are serving as the 4th and 5th and summons a bend in the 4th-angle, we will perceive the role of the 7th of the dominant being heralded. And when the shift away from the existing key becomes settled fact to our experience for a time (short or long), this 7th will be expressed as the jumping 7th-angle, not as the obsolete, bent 4th-angle relative to the former key. And when the sounding of a new pitch-tone between those that are serving as the 7th and 6th summons a (rounded) bend in the 7th-angle, we will perceive the role of the 4th of the subdominant being heralded. And when the shift becomes settled fact to our experience, this 4th will be expressed as the no-jump 4th-angle, not as the obsolete, bent 7th-angle of the former key. *Always, the integrity of the expression of the lower and upper tetrachord of the scale will be preserved.* And throughout the journey of a piece of music through stages of its Circle of Fifths, the whole scale at each given stage will bear and be colored by its role and relationships within the Circle of Fifths to which it belongs: at the stage of the dominant within a piece, ‘dominant-ness’ will color *all* members of the scale as *prime-of-the-dominant*, *2nd-of-the-dominant*, *3rd-of-the-dominant*, etc. How each stage can be lawfully expressed will be discussed further on in PART III and PART IV of my *Singing and Jumping* report. (Dr. Steiner suggested spatial and movement differentiations for the tonal qualities, **I, IV, V** – *EVSing*, Lect. 5.)

In **FIXED-DO** expression, when the pitch-tone that we call, ‘C,’ serves in the role of the prime, the quality of prime-ness will be expressed with the prime-angle. But just as in fixed-do solfège where the syllable, ‘do,’ is fixed to the sounding of the pitch-tone ‘C,’ the prime-angle now is fixed to this pitch-tone in all of its octave reiterations; and this angle-gesture is re-named the ‘C-angle.’ Fixed and named as such, the archetypal prime-angle is no longer a pure expression of the prime within the archetypal tonal scale, for it will not express the direct experience of the prime in any scale other than the one which begins with the pitch-tone, ‘C.’ Each of the other the angle-expressions of the scale – the 2nd, 3rd, 4th, etc. – will be fixed to the pitch-tones of the audible C major scale. These angle-gestures

will be re-named in accord with those pitches: the D-angle, the E-angle, the F-angle, etc.

Applying these fixed angle-gestures to a piece notated in the key of C (major), the legs will be quiet during the lower tetrachord and supremely active for the 5th, 6th and 7th scale degrees. Then if the piece journeys one stage in the dominant direction of its Circle of Fifths, a new non-scale-member will of course be called in to serve as the new 7th in the key of the dominant. It will be expressed with the bent angle-of-the-4th, now regarded as the bent the F-angle; and this gesture will be called the ‘F#-angle.’ Notably, the service of this new pitch-tone as the 7th of the dominant will *not* be openly expressed: the jumped 7th-angle will *not* appear. In addition, the service of the pitch-tone ‘G’ as the *prime* in this scale of the dominant will not be openly expressed, either: the *prime*-angle will not appear. Instead, the 5th-angle, now as the G-angle, will appear. And each member of this new scale of the dominant will likewise have its gesture-expression assigned without regard for our experience of its actual relationship to this new prime. For example, the 4th and 5th of this scale of the dominant will be presented as the C-angle and the D-angle, respectively; in other words, *the 4th-of-the-dominant is presented as-if it were the prime, and the 5th-of-the-dominant is presented as-if it were the 2nd.*

Everything is becoming abstract, and so much so that in fact – if we possess a genuine musical sensibility – we will find that for the sake of the musical integrity of this new tonal scale and our expression of it, we really must come to terms with the following question: how can the pitch-tone, G, be expressed as serving in the role of the 5th *when it has no vital, experienced 5th-relationship to a prime* and when it is being *urgently pointed to as the new prime by its own 7th and therefore must serve as this prime?* Its service as a 5th was in fact terminated by the process of modulation. Its continuance as a 5th is *an abstraction.*

Then for the piece to move a stage further, to the dominant-of-the-dominant, the pitch-tone which served in the role of the 4th in the dominant scale – in the G-scale – will of course no longer serve as the 4th after a new non-scale member is called in and reveals itself in the role of the 7th of the dominant-of-the-dominant. However, in fixed-do practice the new pitch-tone will be determined to be between the pitch-tones which served in the roles of the prime and 2nd *in the C-scale* – i.e., between C and D, not between the 4th and 5th of the dominant scale, the G-scale. Hence, it will be presented with the bent prime-angle. This expression will be fixed as the bent C-angle and called the ‘C#-angle;’ and the service of this new pitch-tone as the 7th of the new key of the dominant-of-the-dominant will *not* be openly expressed: again, the jumped 7th-angle will *not* appear. In addition, the service of the pitch-tone, D, as the

prime in this new scale will *not* be openly expressed: the prime-angle will *not* appear. Instead, the 2nd-angle, called the D-angle, will appear. And the gesture-expression of each member of the scale belonging to this new prime of the scale of the dominant-of-the-dominant will be assigned without regard for our experience of its actual relationship to this prime. The 4th and 5th will be presented with the G-angle and the A-angle – in other words, *the 4th-of-the-dominant-of-the-dominant is presented as-if it were the 5th, and the 5th-of-the-dominant-of-the-dominant is presented as-if it were the 6th.* And once again, our musical sensibility presses us to ask: how can the pitch-tone, D, that serves as the new prime of this scale of the dominant-of-the-dominant be expressed as a 2nd *when it has no vital, experienced 2nd-relationship to a prime and when it is being firmly pointed to by its own 7th and therefore must serve as a prime and 8ve?* And furthermore, the pitch-tone for which it served as a 2nd is not even sounding in the new scale. Its service as a 2nd was terminated by the process of modulation.

And this is what modulation *does* in tonal music: it governs which pitch-tone shall serve as ‘do,’ as the prime. It governs the relationships within the scale by lawfully terminating what is old to make way for the new, and then reinstating the old which has now been made new by what has come to pass in the meantime. *It does not simply drag the past relationships along.*

And moving one stage in the subdominant direction, the pitch-tone which served in the role of the 7th in the C-scale will no longer serve as the 7th after a new non-scale member is called in between its 7th and 6th and reveals itself in the role of the 4th within the lower tetrachord of the subdominant. However, in fixed-do practice the bent 7th-angle which heralded this modulation will be fixed and kept as the (rounded) bent B \flat -angle, now named the ‘B \flat -angle’; and the service of this pitch-tone as the 4th in the new key of the subdominant will *not* be openly expressed: the no-jump 4th-angle will *not* appear. In addition, the service of the pitch-tone ‘F’ as the *prime* in this scale of the subdominant will *not* be openly expressed: the prime-angle will *not* appear. Instead, the 4th-angle, the F-angle, will appear. And the gesture-expression of each scale member that belongs to this new prime will likewise be assigned without regard for our experience of its actual relationship to this prime. Its 4th and 5th will be presented with the B \flat -angle, and the C-angle, respectively. In other words, *the 4th-of-the-subdominant is presented with the bent 7th-angle as-if it were a non-scale member; and the 5th-of-the-subdominant is presented as-if it were the prime.* And yet again, a truly musical feeling-sensing-perception gives rise to this question which may not be ignored: how can the pitch-tone F that serves as the new prime of this scale of the subdominant be expressed as a 4th *when it has no vital,*

experienced 4th-relationship to a prime and when it is being firmly pointed to by *its own 7th* and therefore *must* serve as a prime and 8ve? Its service as a 4th was terminated by the process of modulation.

In reality, our musical feeling-perceptions cannot possibly follow and affirm events that are not grounded in direct experience; hence the fixed-do manner of expression becomes *unrelentingly abstract*. This has wide-ranging consequences: because the members of every scale other than the scale for which the pitch-tone C serves as the prime will be expressed *contrary* to our direct experience of them, this abstractification obstructs the possibility of knowing *by experience* where we are going in the musical movements of the piece of music at hand! This precious knowledge that comes to us through devotion to direct experience is something that movable-do expression *requires* of us. Fixed-do expression *does not*. Why not? At the most basic level, each fixed angle-gesture corresponds to the written note that bears the same name, whether natural, ‘sharp’ or ‘flat.’ By memorizing the pattern of fixed angles for the scale of the home key of any given piece, one can learn to ‘navigate’ from the start pitch or otherwise learn the notes. If the piece modulates, it will add or subtract a ‘sharp’ or ‘flat’ or two, and that is all that the eurythmist needs to do, too. Vastly unlike movable-do expression, in fixed-do expression it is not even necessary to know where ‘do’ is at any given moment! The written music will make it clear *which* angles need to appear; but it does divulge *why* they must.

In fixed-do angle-expression, fifteen different angle-gestures will be shown as the prime (and the same holds for the expression of every scale member, prime through 8ve). Every scale in both directions of the Circle of Fifths belonging to the pitch-tone ‘C’ will require its set of assigned angles. And to serve all of these scales (seven in the dominant direction and seven in the subdominant direction, with three pairs being **enharmonic**) twenty-one fixed angle-gestures will be needed: seven straight, seven ‘sharp’ and seven ‘flat,’ plus double-bent angles for double-sharps and double-flats. If, for instance, a piece begins in the key of ‘B’ major will be presented with five bent angles (‘sharps’), even though it did not make a sudden transition from ‘C’ major to require the expression of these bent angles. If the piece *now* journeys three stages in the dominant direction of its own Circle of Fifths, the new scale will have to be presented either as having seven bent ‘sharp’ angles and one double-bent ‘sharp’ angle; or it will flip over to being shown as the key of ‘A \flat ’ with four bent ‘flat’ angles, even though *for the piece itself* the sojourn in this key is still very much in the dominant domain of its Circle of Fifths.

On a feeling-sensing level, one of the most striking features of this system of angle-gestures is that every scale other than the C-scale will have a disrupted structure

relative to the archetype of the scale. In the key of G, the three jumping angles that express the 5th, 6th and 7th appear in its lower tetrachord. The scale makes an energetic start; but the quiet angles above make it incapable of an energetic rise to its 8ve-do. We argue that it seems right that it has this structure: the dominant is ‘brighter’ than the tonic. If so, shouldn’t the key of D, the dominant-of-the-dominant, be even brighter than G? Yet it has only one jumping angle in its lower tetrachord. This gives it a premature start on its upper tetrachord by jumping with its actual 4th; but it fizzles by its 7th. And the subdominant, the key of F, should surely be ‘dimmer’ than the tonic; but it has three jumping angles in its lower tetrachord whereas the tonic has none. The scale structure is crippled at each stage of the Circle. The result? The character of each scale will be marked by its peculiar abnormality in relation to archetype of the scale, the scale-Gebilde. *Only the music remains faithful to the structure; this system of angle-expressions does not.*

For most of us, this fixed-angles system is the standard expression, handed down to us. We are not aware of what is in the 1915 records of the angles that show otherwise than this. But we do notice how our current practice ruptures the archetypal scale structure. And quite honorably, we want to remedy this. We may try to *feel* ‘do’-ness nevertheless of using the G-angle (the 5th-angle) as the prime for the key of the fixed dominant, G. We may send our awareness to our collar bones/shoulder girdle to try to supply the G-angle with the missing impulse of the prime. Yet even if we succeed in experiencing and conveying the prime this way (awareness in these bones is not necessarily an experience of the prime), this expression is secondary to the overtly-visible fixed angle-gesture and will be muted and eclipsed by it. And in this effort, we are oddly seeking to express two scale degree ‘tones’ simultaneously. Since the angle-gestures and the bones-sequence interval-gestures are both expressions of the scale, we are trying to sing the same melody in two different keys, in actuality trying to sing two voice parts at once, which – as Rudolf Steiner so directly told Ilona Schubert – we cannot do. (Ilona’s account of this appears in the 6th and 7th German edition of the *EVSing* lectures, *Eurythmie als sichtbarer Gesang, EsG*, p. 317.)

Also, in the keys in the dominant direction we might regard a bent angle (a ‘sharp’) for the 7th as compensation for the absence of a jumping angle in some of the keys. How is this enough? And with some of the keys in the subdominant direction, we may try to feel that when the 7th is a straight no-jump angle and the 8ve is a bent angle (a ‘flat’), the comparative radiant quality of the straight angle compensates for the missing 7th experience; but does it really? We may focus on the bones-sequence gestures in the expression of the melodic intervals, and downplay the use of the angle-gestures for the ‘tones.’ We can mitigate the disruption of the jumping angles in odd places in the various

scales by simply not jumping them. But what sense do these upper tetrachord angle-gestures have then, if the legs are no longer active? Was there no point to these very specific gestures to begin with? Another approach seeks to give substance to the angles-expressions by trying to bring an experience of the ‘being’ of each pitch-tone to the gesture. However, the scale is an archetype of *relationships between the pitches*. As seen in the above discussions, every pitch-tone can serve as the prime of a musical scale of relationships and an entire Circle of Fifths. This would provide the reason why music students who have ‘perfect pitch’ – and some eurythmists, too – can face challenges precisely because they can identify pitch-tones: this can obstruct their perception and grasp of the inaudible Gebilde of musical *relationships*! A deeply-respected choral director with whom I worked called this capacity of perfect pitch “brittle” and said it is a pity that anyone has it.

Rudolf Steiner said: “[T]he essentially musical, *spiritual* element in music is between the tones, lies in the intervals, *is that which one does not hear*” (*EVSing*, Lect. V, 2pp. in; my italics). I want to acknowledge how very uncomfortable it can be to let go of the audible, visual and tactile aspects of music. Yet we must live, rest and trust entirely in the inaudible musical structures and phenomena that inform those specific audible and sensory phenomena. We are most secure with what is tangible to our five senses. And these securities would include the system and appearance of musical notation on the page and how the layout of the piano keyboard looks and feels in its fixedness. These features are not where music resides. (Note: I have worked with eurythmists as their pianist.)

The continuation of this discussion and a step-by-step review of the early records of the angle-gestures their practice can be found in PART III of my report on music eurythmy, *Singing and Jumping Opens the Way to a Vital Music Eurythmy Foundation* (see at our EANA website).

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