That's The Way I Understand It - Series

How To Sing At Sight
For The Singer And Instrumentalist
(How To Hear Printed Music In Your Mind)

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Comments: When you look at the words in a book to read it silently, you can hear the words in your mind as if you or someone were saying the words out loud. When you look at a piece of printed music, can you hear the music in your mind as if someone were playing or singing it? In other words, when you see the melody line of the music, can you hear it in your mind and name the tune if you happen to know that tune? Or, can you hear each note so that you could sight sing the melody or a harmony part aloud without a musical instrument sounding out each note for you? Instrumentalists can play better and possibly more in tune if they hear the notes in their minds before they play the notes.

If you can not hear a piece of music in your mind like you can hear words in your mind, you can learn to do this skill by learning it step by step gradually increasing your skills. Professional musicians who can do this skill have a great tool for their careers.

How can you learn to hear printed music in your mind? Go to a music store and get a book on solfeggio syllables. Learn the skills step by step. Getting a musician to help you will probably speed the process.

What is a picture of the process? You can hear printed words in your mind as though they were spoken aloud because you relate them to a basic group of vowel and consonant sounds and word sounds that are already in your mind. Likewise, your can hear printed music in your mind as though it were being performed if you relate it to a group of sounds that are already in your mind. This can be done with the solfeggio system.

There are variations on the solfeggio system, but I will point you to the variation that has been most helpful to me. The document you are reading is not to tell you the total system but rather to tell you where to get the system, tell you helpful steps in learning the system, and to encourage you to begin developing your skill.

This document assumes you know some of the basics about decoding music such as note names, time signatures, key signatures, etc. If not, see a musician.

As an aside, some Christian hymn books are written in "Shape Notes". This is a variation of the solfeggio system but not the variation that I am suggesting you pursue. I mention Shape Notes because it has been effective for the even the congregational singer in the pew. At one time there was even "Singing Schools" for helping church musicians and

congregational singers to learn and become skilled with this system. The shape of the note told you such things as: if you were singing one of the rather stable notes or if you were singing a note that was likely to go up or likely to go down to get to the next note. The history of Shape Note hymn books should encourage you that you can learn to develop skills that help you sing at sight. These books are also good for choirs to practice solfeggio a few minutes at the beginning of each rehearsal to develop their skills.

Another encouragement for you that you can learn to hear music in your mind is to point out that you can already hear music in your mind! You just do not have an effective system to apply this ability to all music. When you hear a piece of music performed that you know, you say to yourself that you know that song as and name the title to yourself. You recognize the song because you can already hear all or parts of that song in your mind before it is performed – you know the tune so to speak. You relate what you hear being performed to the music that you hear in your mind and then name the title of the music from the title you have connected with that music in your mind. If you stop to think about it, you can hear songs that you know or it least parts if them just by thinking about that piece of music – you can hear music in your mind! Now let's look at a system to expand that ability.

Principle 1: Hear the note before you sing or play it will help you make better music! You will be in a position to make better music because you will know more about what is going on. You can hear what you should do before you blurt out something and then make adjustments to fit your aesthetic interpretation.

Principle 2: Hear all music as being based on a major scale or an altered major scale - - with a moveable "do". Most music that we come in contact with is based on the major and minor scales of notes. The bulk of that music turns out to be based on the major scale. Different modes of scales such as major and minor are the way that the mathematics of sets of music sound vibrations have developed in which the distance between notes may be what we call a whole step, a half step, or on occasion a step that is larger than a whole step. A discussion of scales is beyond the scope of this document. However, the point here is that I am suggesting that you relate all music to the major scale as far as hearing it in your mind goes. Hear all music as being based on a major scale or an altered major scale.

The notes in the major scale each have a name in the Solfeggio or sol-fa syllables system. The eight notes of the major scale are called: 1st note = "do(dough)", 2nd note = "re(ray)", 3rd note = "mi(me)", 4th note = "fa(fah)", 5th note = "sol(soul)", 6th note = "la(lah)", 7th note = "ti(tea)", and the 8th note is also named "do(dough)" because it sound just like the first note only higher. You may need a musician to play this scale for you at first. When you learn the sounds of the eight notes of the major scale you are ready to start hearing printed music in your mind.

Sound is just air vibrating at speeds which the ear can hear as sound. With good hearing we can hear between 20 vibrations per second to 20,000 vibrations per second. But how then can we distinguish between one vibration and another to call one something like

"do" and another one "re"? It is the "relationship" between the vibrations at what ever pitch (vibration speed or level) that will help you learn to hear printed music in your mind. The first note in music is given to you by a pitch pipe, an instrument, or the music that precedes your singing. Or, you just pick a convenient pitch (vibration or note) and start singing. To be able to hear the exact pitch (vibration) of the first note involves something called absolute pitch or, on occasion, relative pitch. A discussion of absolute pitch is beyond the scope of this document. Absolute pitch is not needed to hear music in your mind. You just hear it at whatever arbitrary pitch level you select or at the pitch level you are given by an instrument or whatever.

First, let's talk about "do". The relationship we hear between notes (or vibrations) is a mathematical relationship of a ratio of vibration speeds. The first note of the scale is called "do" and the eighth note of the scale is called "do" and these two notes sound the same except the latter note sounds higher. This is called the "octave" interval and the ratio of vibrations between the two sounds is 1:2 - - the second note is vibrating twice as fast as the first note. Any note name that we can sing has a note by the same name that is an octave higher (vibrating twice as fast) and also a note that is an octave lower (vibrating ½ as fast). "Do" is sometimes called the "tonic" note because the tonic or "I" chord of harmony is built on that note. "Harmony" is the other notes of the music that sound while the melody is being sung or played. "Melody" is the tune - - the main part you sing and recognize as the song. The octave makes it possible for women and men to sing the same melody at the same time in "unison" or making the same sound. Unison usually means all are singing the same note but it is also used in the case of women and men singing the same part at the same time even though they are singing an "octave" apart because male voices at the teen years drop to about an octave lower than women's and children's voices when the "voice changes". The women in unison singing with men just sound higher than the men.

So, to hear music in your mind, the sound of "do" is arbitrary selected or is given to you by an instrument or whatever. The rest of the notes of the scale you hear in relationship to "do". What could be easier?

Next, you learn to sing and hear the major scale at any pitch (vibration) level. Sing and hear it both up and down. Up is do, re, mi, fa, sol, la, ti, do(high). Down is do(high), ti, la, sol, fa, mi, re, do(low, of course). You will have to learn the sound of the major scale using an instrument or another singer to sound it out for you. If you can look at a piece of printed music and play the melody on an instrument, then play the "C Major Scale" which is C,D,E,F,G,A,B,C. To learn the sound of the solfeggio syllables use the "C Major Scale", C=do, D=re, E=mi, F=fa, G=sol, A=la, B=ti, and (high)C=(high)do. As you hear and sing each note you give it the appropriate syllable name. Solfeggio with a moveable "do" sounds the same in any "key(pitch level).

Before we discuss the next step, let's look ahead a minute. The most important note to be able to hear in relationship to "do" is "sol", the 5th note of the scale. The interval between do and sol is called a "fifth" because it is the 1st and 5th note of the scale. The mathematical relationship between do and sol is 2:3. Sol vibrates 3 times every time do

vibrates twice. Keep do in mind when you sing sol and you will gradually learn to hear sol "in tune" in relationship to do. "In tune" means not sounding (vibrating) too high or too low. This is called "intonation". After you learn to hear an in tune fifth it is easy interval to hear in tune. Choirs can go out of tune (go flat or go sharp with their pitch level) because some in the choir hear and sing sol (the fifth) flat and then pull the rest of the choir down. The unison (all singing the same note) is the easiest to hear and sing in tune because everyone is singing the same vibration. It is a matter of concentrating and listening. The octave is the next easiest to hear and sing in tune because one note is vibrating twice as fast as the other. The next easiest to hear and sing in tune is fifth of do to sol because one note is vibrating three times while the other note vibrates twice but in actuality sol relates to the note (a low low do) that is an octave below do and is vibrating three time as fast as this low low do. Thus, the fifth of do and sol is somewhat easy to hear and sing in tune. By now you should be beginning to see that the mathematically relationship between do and sol is very strong making them the two foundation notes of the scale! Indeed the harmonies built on do and sol (tonic(I) and dominant(V)) are the two most important harmonies in music and in most music it is the structure that helps give music form power and direction. The "dominant" harmony or "V" chord is built on sol. To learn to hear and sing sol you need to first learn some other notes in the scale.

A quick aside: in reality the musical chromatic scale (the scale of all half steps) does not work out to be mathematically perfect. It is slightly out of tune at some point. Bach came up with the solution most widely used which solves the problem by dividing the out of tune mathematics to give a little bit to each note. This system is called by such names as the even tone tuning system and your organ and piano are tuned this way. When we sing and play wind or string instruments our ear usually sings or plays fifths mathematically in tune though. Thus, music which many would say is the most beautiful and moving of the arts is based on a mathematically imperfect system! Remember that when you get too concerned in the wrong way about your imperfections.

With those diversions, let's look at the first note to learn to hear and sing in relation to "do". It is "re" - - the 2nd note of the scale. To sing do, re is called a "step" because there is no note between do and re up the scale. A step is two notes in the scale that are next to each other like do and re or la and ti. This makes them easy to hear in your mind or sing these notes because you just think the next note in the scale. Learn to sing do, re, and back to do - - do, re, do. Can you hear it in your mind? Again, this should be easy because you just think up the scale of syllables which we learned earlier - - do, then re. Work on hearing and singing do and re until you can hear them in your mind. Listen to them being played or sung if you need to.

Now, let's look at "mi", the 3rd note in the scale. To sing do and then mi, it is not a step because they are not two notes next to each other in the scale. When two notes are not next to each other it is called an "interval" instead of a step. But an interval is rather easy to sing - - <u>to sing an interval, you just think the notes in between stepwise up the scale!</u> For instance, to sing the interval do, mi you think up the scale by thinking do and then singing it, think re the next note in the scale in your mind but don't sing it, and finally think mi the next note in the scale and then sing it. Try it.

Now sing these notes: mi, re, do, re, mi, mi, (a longer)mi, re, re, (a longer)re, mi, mi, (a longer)mi. What song are you singing? Yes, it is a variation of the nursery rhyme tune "Mary Had A Little Lamb". So, if you saw the printed notes in the key of C Major: quarter notes of E(mi), D(re), C(do), D(re), E(mi), E(mi), half note of E(mi), quarter notes of D(re), D(re), half note of D(re), quarter notes of E(mi), E(mi), half note of E(mi) - - by thinking these notes using syllables you would hear "Mary Had A Little Lamb" in your mind and be able to tell someone that the printed music was the tune by that name. You are hearing printed music in your mind!

Using syllables and no music, try to sing some simple songs like nursery rhyme tunes, folk tunes, and some hymns. Not all songs start on do so sing up and down the scale until you find a starting note that makes the song sound right. Then, see if you can sing the song without having any music. This is called singing "by ear". You musician friend may be able to suggest a simple song that you know which starts on the key tone or "do" which would make an easier song to try. Hymns are good to use for practicing.

(Note: To explain note values such as quarter notes, to explain key signatures and the key you are in including the mode, to explain time signature is beyond the scope of this paper. See a musician for help with these. You may have to pay for some private lessons. To be able to look at a piece of printed music and play it on an instrument because you know note values, key signatures, time signatures, etc. is said to be able to "read music". However, really this is just mechanically decoding a piece of printed music and mechanically playing it on an instrument. To really "read the music" you hear it in your mind just like when you read a book silently to yourself you hear the words in your mind. Many amateur and professional musicians rehearse a piece of music by rote drill so that eventually they can look at their part in this piece of music and hear what it sounds like in their minds because they have heard it a lot and associate it with the set of notes they are looking at on the piece of paper. They have not yet developed the skills of something like solfeggio that would help them know what the music sounded like in their minds before they ever heard it played or sung.)

So, you can hear and sing any note in the scale by thinking up or down the scale until you get to that note and then sing it. You can sing any interval by thinking the stepwise notes in between the two notes of the interval.

Now a comment about the moveable "do". Moveable "do" means that you make the first note of the scale for whatever key you are in (pitch level) to be do. In the key of C Major C is do, in G major G is do, in Bb Major B flat is do, etc. See your musician for an explanation of keys.

And now about the part of Principle 2 that talks about "altered major scale". If you have an "accidental" (a note not in the Major scale such a B flat in the key of C Major, then sing it as "ti" only a little lower (down a half step - - see your musician for an explanation of half step). Also, note that most accidentals are going somewhere - - B flat often resolves (goes to) A(la). Thinking that may help you better hear the accidental. F sharp

in the key of C Major think of as fa only a little higher (half step) and it often goes to G(sol). Also, think the note in the scale to where the accidental is going. Another "altered major scale" idea is to sing other modes of scales besides major and even very modern music as an altered Major scale to help you hear the sound of the next note. For instance, sing the Minor scale as a major scale only alter the third (mi and make it lower) and occasionally you have to sing a few other notes that are not in the major scale. You need some understanding of scales to do this but it makes it easier than starting a minor scale on "la" which is what a minor scale does and it is also easier than inventing other syllables for the minor scale. But, the most important reason for hearing and singing the minor scale as an altered major scale is that you can still relate things to that strong do-sol sound which is the basis for that very important tonic and dominant harmonic sound of music!

Principle 3: To sing an interval, you just think the notes in between stepwise up (or down) the scale. We just talked about this principle in the preceding section. So, you are either (1) singing up and down the scale by steps (the next note in the scale), (2) singing intervals in which you think the stepwise notes in between to hear where you are going (think these notes as very quick notes up or down the scale just before you sing the second note of the interval), and (3) on rare occasions you sing an altered note in which you lower or raise a scale note by a half step. What could be more simple?

A few other comments: as stated earlier, scale steps are usually either ½ steps or whole steps (two ½ steps). In the major scale, ti to do is a ½ step. Ti quite often goes to (resolves to) do. In the major scale, mi to fa is a ½ step. Fa quite often resolves to mi except in a bass part (bottom music voice) fa goes to sol (resolves to) because of the strength of IV, V, I harmony in a cadence at the end of a music phrase. Also, in the major scale, la often goes to (resolves to) sol.

Principle 4: Sing each note of a chord to help you learn to hear chords (harmony) and chord progressions. If you can hear the melody (the tune) of a piece of printed music in your mind, you are in great shape. Harmony takes much longer and much musical experience to learn to hear in your mind. Harmony is all of the notes that sound together at the same time; however, not all notes are related to the harmony at any particular point in the music (such as passing tones, ornaments, etc.). A good way to learn to hear harmony is to learn to sing notes of chords in sequence such as the I(tonic), V(dominant) chords or I, IV, V chords. (The I, IV, V chords happen to be Major in a Major key.) The I, IV, V chords are the three primary chords in the major scale. The II, III, VI, and VII chords in a since are substitute chords for the three primary chords. (The II, III, VI chords happen to be Minor in a Major key and the VII chord is a type of diminished chord. There is also something called an augmented chord. The V chord is often a V7 chord which adds another third and this chord is sometimes called the dominant 7^{th} chord.) There are also altered chords, seventh chords, ninth chords, etc., and the important dominant of the dominant chord, and unusual chords, plus chords can be "inverted". Basic chords are three notes and are built in thirds. The chord takes it name from the note of the scale that it is built on. For example, in the key of C Major, The I or Tonic chord (C Major chord) is C(do), E(mi), and G(sol). Sing the I chord up

and back down using syllables - - do(C), mi(E), sol(G), mi(E), do(C). Use an instrument to help you at first if you need it. Then, if you can play piano or have an appropriate music program on your computer, sound all of the notes together of a I chord to hear the chord. Do this with other chords also to hear them. The V or Dominant chord (G Major chord) is G(sol), B(ti), D(re, sing it high for now). The V7 chord would add an F(fa, sing it high for now). Sing the V chord up and down - - sol(G), ti(B), re(D high for now), ti(B), sol(G). With chords you need to learn the sound of the harmonic progression - - where are the chords going? To better hear the I, IV, V(V7), I basic progression and how the notes may resolve, hear and sing the following listening to the progression and how the notes resolve from chord to chord: I chord: do, mi, sol, do(high), sol, mi, do; IV chord: do, fa, la, do(high), la, fa, do; V7: re, fa, sol, ti, sol, fa, re; I chord: do, mi, sol, do(high), sol, mi, do. After you can hear the three basic chords in music, learn to hear and sing progressions involving other chords. Get the help of your musician to learn more about chords.

In conclusion, with the first three of these Principles in this document you can be a very good singer and play your instrument better if you work to develop the skills. You will be able to look at a piece of printed music and recognize the melody (the tune), if you happen to know the tune. The conductor of your music group will give you the finer points of music needed for a good performance. Continue to gain more mastery of your voice and instrument. Learn more music theory will also help if you desire this. Aesthetics is the vague subject that looks at how to make music beautiful, moving, and inspiring if you are ready to get into that. You may find other documents on the website [danielhookemusic.com] where you found this document to help you - - such as a layered approach to music aesthetics titled “A Layered Aesthetic Interpretation Of Music For The Performer, Composer, And Listener”.

When you sight read music in the sense of playing or singing it for the first time, quickly look over the music before playing or singing it to see if there is anything place hard in it or something you need to quickly figure out. This way you will not be surprised when you get to that point in the music and you will be ready for it.

This document has made use of the physical aspects of music from the science of physics to give you the basis of the system. Keep in mind the physical aspects of sound and their implications for music can help you in many ways in your music making. There are three aspects to physical sound and, among other things, they relate to three basic things in music: (1) frequency (pitch vibrations or the note that is sounding), (2) duration (note values and these note values linearly making rhythm), (3) intensity or volume (loudness). In regards to (1), keep “do” (and possibly “sol” - - but especially “do”) in your mind at all times to help you sing or play in tune and to help you think your syllables. In regards to (2), feel the beat or pulse of the music as though you were marching or dancing and be aware of where each count is in the measure to help you accurately analyze the rhythm patterns so that you make the music properly flow. And, in regards to (3), be aware of how loud a medium loudness sound is to your listener in any part of the performance room so that you can make the music get louder or softer for dynamic and related impact plus in the case of word consonants - - so that they are loud enough to be easily heard and

the listener thus gets the meaning of the words. Keeping these three aspects of physical sound and their musical implications in mind can help you make better music using your syllables.

May your music making be enjoyable for you and others!

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That's The Way I Understand It - Series

See the website danielhookemusic.com

Concerning Music Documents in "That's The Way I Understand It - Series": Read all of the music documents to get a picture of what has worked for the writer.

Concerning Religious Documents in "That's The Way I Understand It - Series": These religious documents are An Advocate for interpreting the Bible the way Jesus of Nazareth interprets the Bible. Jesus will honor the Bible if we use it the way He interprets it. … Jesus our Savior believed the Bible as He interpreted it; so we know that what the Bible says about diligently seeking God and Jesus will be rewarded and honored in some way. Hebrews 11:6; John 14:15, 21; 15:4-6; I Sam. 2:30.

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Are You Informed About Where Biblical Christians Are Coming From As You Make Decisions?

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How To Sing At Sight For The Singer And Instrumentalist
(How To Hear Printed Music In Your Mind)

Just what the title says. For the professional and the amateur. Get a copy of this document for each member of your performance organization especially if it is a singing group. Drill on it at the beginning of each rehearsal should pay good dividends.

That's The Way I Understand It - Series (continued)

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Has anyone ever told you about Biblical Christianity? Do you know some of the issues about the Bible and Bible interpretation including the issue of is God a rewarder? Uses "The seven last words of Jesus Christ". Uses the story of the thief on the cross beside Jesus. The thief on the cross bad-mouthed Jesus severely. Then, in less than a few hours he converted. What happened? Why did the thief convert? Sinners can be forgiven and redeemed by God. An Advocate for interpreting the Bible the way Jesus of Nazareth interprets the Bible. **{Help to save you time in figuring out the Bible.}**

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A Quick Look At Biblical Christianity

Do you know why Jesus of Nazareth is important? Do you know what He claims His purpose is? Do you know how He supports and interprets the Bible? Compare your answers with this document. Many people who know that Jesus is important have never really investigated Biblical Christianity. Many people are restrained by peer pressure (both social and professional), threat of death, etc. from investigating Jesus of Nazareth or from investigating Biblical Christianity. This is a good document to use to begin your investigation of Biblical Christianity. This document could have also been titled "The Intellectual Basis Of Belief And The Belief Basis Of Intellect".