Extra Support with Music
Singing and Recorder

David Gable

Perceiving Pitch

"But I'm tone-deaf!" How often have we heard this protestation from individuals—children and adults alike—who experience challenges with group singing? Perhaps they have arrived at this conclusion themselves, or perhaps (and more likely), they have been told by someone else that they are tone-deaf. In my experience, however, true tone deafness is a much rarer phenomenon than most people believe. There are, to be sure, varying degrees of pitch sensitivity, some people experiencing more difficulty with tonal differentiation that others, but, in all my years of working with and teaching music, I have encountered only one individual whom I might categorize as "tone-deaf." In most cases, it is more a matter of belief. A person who believes him- or herself to be tone-deaf will give up on any attempt to discern pitch. It is a classic self-fulfilling prophecy.

It can be difficult to break through this kind of mistaken belief, particularly when a third party, perhaps a teacher or parent, or perhaps even a hearing specialist, has made the diagnosis. There are, however, some simple activities that can help dissuade a person from the notion of tone deafness.

Take a large glass jug or bottle. An old-fashioned milk bottle or cider jug will do quite nicely. Place it beneath a faucet. Then tell the person professing to be tone-deaf to close his or her eyes and put a hand on the faucet handle. Instruct the person to turn the water off just before the jug overflows. Then turn the water on. The gurgling sound of water pouring into the jug will remain quite steady for a while. Then, as the water level reaches the narrower neck of the jug, the pitch will rapidly go up. The effect is quite dramatic.

Most people are able to do this, if not on the first try, then certainly on the second or third. For some, the revelation that they are not tone-deaf is so profound that they may want to do the activity over and over again. The discovery opens a door into a whole new experience of tone.

There are other activities that can help break down the misperception of tone deafness. You may have observed that when cupped hands are clapped together, the resulting tone is deeper and more resonant than when flat hands are clapped. Clapping cupped hands at waist level, then gradually raising and flattening the hands so that the pitch rises as the hands move upward, can visually reinforce auditory perception. Lowering the hands while gradually returning them to a cupped shape completes the exercise, which can be repeated several times in a row in a very short period of time. This activity, by the way, is also an excellent tool for associating pitch with a position on the staff. Higher, brighter tones are positioned higher on the staff than the deeper tones.

In a similar way, sliding the voice from low to high and back again, especially when reinforced by the raising and lowering of hands, can not only help break through the misperception of tone deafness, but also help a singer identify how different tones feel in the larynx. When I have a student who is struggling to match pitch, I have him or her simply hum a tone at a comfortable pitch. Then, following the movement of my hand, the student slides his or her voice up or down until the correct pitch is attained. Reiterating the correct pitch and sensing how it feels, as opposed to how it sounds, goes a long way toward the goal of singing in tune.

Another exercise, particularly helpful for those who either have difficulty controlling vocal pitch or are shy about singing, is to match tones with musical instruments. In the classroom this is likely to be the recorder, but any pitched instrument can be used. The teacher plays a simple note pattern from a position where the student cannot see the fingering, and the student tries to replicate the pattern. Initially I like to begin with G (the "top hand" note) and use exclusively the notes G, A, and B in different groupings, but as the student becomes more adept and develops more confidence, I extend to other tones and longer patterns. As with the aforementioned exercises, students are often surprised by their ability to duplicate note patterns.

Of course, playing the tune on an instrument while children sing is an old standby method of helping them sing in tune. I have found that the ideal instrument for this purpose is the violin, both because its lower to middle range completely encompasses the children's comfortable singing range, and also because its string timbre is very like the sound of the human voice. For me—being

a performing violinist in my other life—this has been a good tool, but that is not the case for most classroom teachers. The recorder is often the instrument of choice, and most children can readily sing in tune an octave below a soprano recorder (the pitch of which is an octave higher than written). However, children who experience challenges with pitch differentiation frequently mistake timbre (tone color) for pitch, and when asked to sing with a soprano recorder, they may force their voices unnaturally high in a futile attempt to imitate the brightness of the instrument. The child's natural register is mostly encompassed by the alto recorder and entirely by the tenor, but many teachers hesitate to use these instruments with younger children out of concern that they may be too incarnating. I do not believe this needs to be a cause of worry. The tones of alto and tenor recorders, while deeper than those of the brilliant soprano, are mellow and soothing, and as mentioned earlier, they are in the correct octave for young singers. Also, were we to attempt to shield children from low timbres, we would have to recommend that fathers not speak to or sing with their children, that children never hear the sound of a cello, never put their ear to the side of a purring cat.

I would like to say more on the idea of feeling, rather than hearing pitch when singing. Although my background is as a performing musician, I do not have what is often referred to as "perfect pitch," that is, the ability to identify random pitches or sing a specific pitch without any frame of reference. Yet, when I sing with my classes, I am consistently able to begin a song on the same pitch without needing to refer to a recorder, pitch pipe, or chime. This is because after I have sung the song enough times, it is my body, rather than my ear, that recognizes how it feels to sing the correct pitch. You might compare it to being able to write your name with your eyes closed. It is the kinesthetic memory, not the ear, which identifies the tone. I have found that this is true of children as well. In fact, it was my observations of children singing that led me to this discovery in the first place. To cite a specific example, I was once rehearsing my middle school chorus when I inadvertently gave them an E rather than the D to which they were accustomed as a preparatory pitch. To my amazement, nearly the entire group began singing in the usual key. They were singing "by feel" rather than by ear.

Of course, I do not necessarily recommend beginning songs without a pitch reference. Rather, this observation actually serves to underscore the importance of always singing a song starting on the same pitch if we are to develop a good sense of pitch in our students. If using an instrument or pitch pipe allows the teacher to accomplish this, by all means it should be used.

Rhythm

Another common truism among struggling musicians is, "I'm not good at music because I'm not good at math. I can't count." While there is no doubt that developing one's sense of rhythm can greatly benefit one's mathematical acuity (I, myself, am a good example, having survived fourth grade arithmetic by translating multiplication tables and fractions into rhythmic patterns), there is absolutely no reason to believe that being mathematically challenged must necessarily impede one's musicality. While mathematics can be reduced to purely abstract concepts, rhythm must be understood not in the head, but rather with the body. For this reason, children's initial experiences of rhythm should be through musical and motor activity rather than notation.

In lecture 6 of *The Inner Nature of Music and the Experience of Tone*,[1] Rudolf Steiner indicates that only after about the age of 10 should children's attention be drawn to the rhythmic element in music. By this I do not believe that he means we should use arhythmic music prior to age 10, but rather that we should not turn rhythm into an intellectual exercise. A child's whole being is inherently rhythmic. From the faster rhythms of circulation and respiration to the broader rhythms of waking and sleeping, we all live steeped in rhythm. Before age 10, however, we want the child to experience both these biorhythms and musical rhythms as part of an organic process rather than as abstractions.

Rhythm is the musical expression of the will, and the best way to develop rhythmic sensitivity in children is through activity of the will. Jumping rope, skipping, swinging, and other rhythmic gross motor activities (the standard fare of Waldorf elementary students) gives children an inner understanding of rhythm upon which a cognitive understanding can later be built. These or similar activities, rather than any attempt to teach rhythmic understanding by way of musical notation, is the best approach to take when helping a child with an undeveloped sense of rhythm.

From large bodily movements, one progresses to smaller, more detailed rhythmic activities. Walking with a rhythmic step and clapping the hands in sync with the feet is a good next step. Clapping the hands twice to every step, then in alternation with the steps, can follow.

1 Rudolf Steiner, *The Inner Nature of Music and the Experience of Tone* (Spring Valley, NY: Anthroposophic Press, 1983). This book is also available on line at the Rudolf Steiner Archive: https://wn.rsarchive.org/Lectures/GA283/English/AP1983/InNaMu_index.html

Simple duple meters and rhythms (un-syncopated quarter and eighth notes in two-four or four-four time) are the best for remedial purposes, as they reflect the body's rhythms in a way that triple meter (three-four time) and triplet rhythms do not. These fundamental rhythms can progress toward more varied rhythmic patterns clapped in time with the steady stepping of the feet. I find it best to have the feet provide the continuous pulse, and have the hands create the rhythmic patterns that are overlaid upon that pulse.

Only when the child has developed an inner sense of rhythm does it become productive to deal with rhythmic notation.

Reading Music

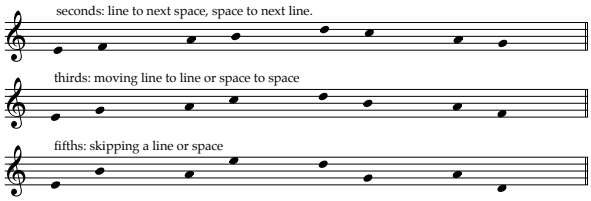
There are two main elements to reading music, and these are the two musical elements discussed above: pitch and rhythm. While these are sometimes lumped together in the general category of reading music, they are conceptually quite different and involve different thought processes.

The musical staff is essentially a graph. High notes are positioned higher, low notes lower. Notes that are too high or low to be written within the five lines of the staff are written with extra lines called ledger lines. (I like to compare these to an extension ladder when teaching children about pitch notation.) This means that every pitch has a characteristic visual appearance when written on the staff. Just as one can look at a thermometer and see whether the temperature is hot, cold, or moderate, one can glance at a staff and see whether the pitch is higher, lower, or in the middle.

The earliest examples of written music in the West do not have staves. Symbols called neumes were used to show the general shape of a melody rather than its specific pitches. During the 10th century, a musician known as Guido of Arezzo devised a system using four lines that allowed for the representation of specific pitches. Since then, staves of four, five, and six lines have been used; the five-line staff is the standard today, though Gregorian chant is still often written on a staff of four lines, and the general idea of note position following the shape of the melody has persisted. Keeping this in mind is very helpful in learning to read notes.

A proficient sight-reader does not think the names of the notes when singing or playing. Rather, he or she follows the shape of the line. Each interval, in addition to having a characteristic sound, also has a characteristic appearance. A second (step or half step) moves from a line to the next space or from a space to the next line. A third moves from space to space or line to line. A fifth skips a line or space. Learning to recognize the visual appearance of notes on the staff and of intervals between notes is much more important than learning the names of notes. This is not to say that learning note names is not useful. It is, but mostly for the purpose of enabling us to communicate with each other about the music.

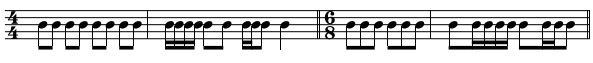
Characteristic appearance of intervals



I have found that the best method for teaching students to read pitch is to have them learn a tune initially by demonstration, then follow the music with the eyes while playing or singing. The hands and larynx do not recognize pitches by name, but by feel. Hands "think" spatially. To the hands of a person playing a soprano recorder, a note on the second line (G) does not indicate a pitch so much as a setting of the fingers of the left hand. For a violinist, the same note indicates a place to be stopped on the D string. To a singer, it indicates a tone that feels a particular way when sung. Unfortunately, the most common way of teaching pitch notation is to focus on learning the names of notes rather than building a connection between the eye and the hand or larynx.

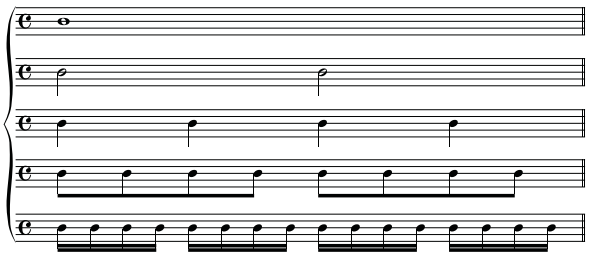
Rhythm notation, by contrast, is a more symbolic way of writing. There is no particular reason why a round shape with no stem should indicate four beats, no particular reason why a dot placed after a note should indicate extending the note's value by half. It is simply a matter of convention. There is a measure of logic, of course, to the addition of flags or beams when indicating increasingly short beat subdivisions, but even this is convention. We could just as well draw horizontal lines on the staff to indicate note duration. The conventional method, however, has the advantage of being very systematic. If one is able to comprehend divisions and proportions, one is able to comprehend rhythm notation. Observing that beams group notes into beats is key to mastering the reading of rhythms.

Beams grouping notes by beat



Although rhythm notation is independent of spatial proportions (imagine how inconvenient it would be if it were necessary for every whole note to take as much horizontal space as sixteen sixteenth notes!), I find that positioning notes relative to their durations is extremely helpful for students learning to read rhythm. When I write a rhythmic pattern for reading practice, I make sure that one quarter note occupies approximately the same horizontal space as two eighth notes or four sixteenth notes.

Proportional positioning of rhythmic values facilitates reading

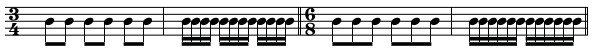


A question that often comes up asks: When is the best time to teach reading music? My response is that there is no single time. Reading music requires multiple thought processes, and some elements of notation are more readily grasped by children at an earlier age than are others.

As noted above, our method of notating rhythm has no direct relationship to the length of notes. It is a fairly abstract notion. It is also, as is rhythm itself, an exercise in proportions. For these reasons, I feel it is most appropriate to introduce rhythm notation in fourth grade, the year in which fractions are introduced. There need be no concern that students might be confused if notation is presented prior to fractions. In fact, since beat subdivisions are customarily beamed together in one-beat groupings, music notation provides a visual aid to the understanding of equivalent fractions. Two eighth notes are equivalent to a quarter note, and so forth. The fact that we refer to them with fraction-like names is also not a problem. It is very easy to see that eighth notes are so called because eight of them will last the same length of time as a whole note.

One concept that can become confusing is the time or meter signature. Often these are explained as if they were fractions, and "three-four time" is sometimes referred to as "three-quarter time." This is not correct. A time signature, though it looks like a fraction, does not identify part and whole the way a fraction does, but rather indicates how many beats are in a measure and what type of note is used to express a single beat. Thus, "three-four time" indicates that each measure has three beats and a quarter note receives one beat. Also, unlike fractions, "three-four" is not the same as "six-eight." In the former, a measure might include three pairs of eighth notes (or the equivalent), but in the latter there are two beats, each of which may be comprised of three eighth notes.

Grouping of eighth notes and sixteenth notes in three-four and six-eight time



The notation of pitch is basically pictorial, with the rise and fall of note heads indicating the rise and fall of pitch. The staff is easily likened to a ladder, and possible pictorial images abound. Children intuitively recognize that when a teacher's hands go up and down when the class sings, their voices should follow. The hand clapping activity described earlier is another way in which high and low pitch can readily be connected to staff positions. For that matter, the very fact that we use the words "high" and "low" suggests a natural connection between what we hear and what we see on the staff. Because of these factors, it is quite reasonable to introduce the staff and pitch notation earlier than rhythm notation. I have found that by third grade nearly all students are able to grasp the general idea. I do not, by the way, promote the approach taken in some method books of writing notes without a staff and with the note name written within the note head. As indicated earlier, it is not the letter name of the note that is most important; rather, the essential point is what the note's position on the staff tells the musician to do with hands or voice.

It is obvious that one cannot introduce pitch notation in isolation. I see no problem, however, with third graders seeing music with rhythmic indications. In response to their questions, I simply reply that the variations in the notes tell us how long they are to sound, and that we will learn more about that later. It is like allowing kindergartners to see words in print without attempting to teach them to read. It becomes a mystery to be revealed at a future date.

Recorders

The effect of instrumental music on children is quite different from the effect of singing. Vocal music tends to excarnate, to lift their consciousness out of their physical bodies and into the astral, the arena of pure feeling. Playing an instrument, while still working in the astral, has a more grounding effect. I believe this is due to the engagement of the limbs and the need (even for string players) to coordinate hands and breathing. Playing a

musical instrument engages and helps integrate the astral and etheric with the physical body. I believe that it is essential for children, especially as they enter the middle school years, to be involved in both singing and playing, if not daily, then at least on a regular basis each week. This is also true for children with sensory-motor challenges and children who join a class "midstream." These children, though, may need extra support in order to feel successful.

There are five elements of recorder playing that frequently cause difficulty for students. These are the embouchure (mouth position), posture, fingering, breathing, and tonguing. The first thing a teacher must do is identify which of these is creating the problem.

The correct embouchure for the recorder has the tip of the mouthpiece resting on the lower lip. The mouthpiece does not enter the mouth, but many children, especially those with sensory integration difficulties, will insert it deeply. This causes problems with tonguing and breathing, and must be addressed first. I tell students to let the tip of the mouthpiece rest on their lip, then to bring the upper lip to the mouthpiece as though sipping water through a straw. For some children it is necessary to practice finding the correct embouchure. In the early learning stages, I remind children of it every time we play. Once the embouchure is established, other matters may be addressed.

Correct posture is as important to playing the recorder (or any instrument) as it is to performing eurythmy or dance. It is, however, difficult to convey in writing because many details vary according to the size and proportions of the hands, arms, and torso. Therefore, I will not attempt, do so here. That said, there are certain aspects of posture that I have found create difficulties for more than a few students, and these warrant mention. One is the position of the instrument itself. There should be a straight line from earlobe to mouthpiece to bell. Many students look down, as if trying to see their fingers. This creates poor breathing posture. (By the way, reading music lying flat on a desktop also lends to this problem. I strongly encourage the use of music stands.) The solution, however, is not necessarily to address posture directly. If the student is looking down because of fingering uncertainty, the best approach may be to sensitize the fingers so that he or she can play by touch. Have the student hold the instrument in playing position, but not blow into the mouthpiece. Starting with the top index finger and thumb, place the fingers on their respective tone holes and try to feel the entire circumference of the hole. It may help the student to do this with eyes closed. Take the fingers away to see if the outline of the hole is visible on the pad of the fingertip. If only a crescent is visible, the finger is not completely covering the hole. Proceed in similar fashion down the hand.

After this exercise, have the student play a B (top index finger and thumb). While playing, gently rock the finger so that the hole opens along the edge. Do the same with the thumb. Have the student listen to the way the tone and pitch change. Once the finger is securely covering the entire hole, the tone becomes clear and the pitch is true. As with the silent exercise, proceed down the hand to A, G, low E, and low D.

Many students develop poor fingering habits simply because they are trying too hard. Some, for example, lift the fingers very high. If the fingers are lifted too far from the holes, it is harder to place them accurately and in synchronization with each other. The fingers should stay fairly close to the instrument, being lifted and set gently. Others press the fingers too tightly into the tone holes. White knuckles and deep tone hole impressions on the fingertips are evidence of this problem. Imagining that the instrument is coated in fine gold dust, which will be rubbed off if gripped too tightly, can help a student lighten the fingers satisfactorily. The problem of overworking is exacerbated if the student is moved too soon into larger instruments with wider spacing between tone holes. Before a student takes up alto and tenor, the teacher must ensure that she or he can reach the lowest tone holes without straining.

Breathing, too, is impacted by too much effort. I sometimes see students breathing between all the notes. They quickly become fatigued and even light-headed. It should come as no surprise if they come to dislike playing the recorder. Other students try to breathe too deeply, lifting the shoulders and gasping for air. This actually inhibits deeper breathing, as it constricts the lungs. Proper breathing is done through the mouth, by raising the upper lip from the mouthpiece. Breaths are taken at musically appropriate points in the phrase, not whenever we happen to run out of air. With a little practice, even younger children can learn to breathe easily and deeply enough to take in enough air to play several beats without taking another breath.

Students should be taught to play with full air, but not to over-blow. Over-blowing obviously causes the instrument to shriek most unpleasantly. Under-blowing, though, is just as problematic. It results not only in meager tone, but also in flat and wavering pitch. Sadly, when cautious children play, they under-blow in hopes of not standing out. When they hear the unsatisfying

tone that results, they become even more cautious, and the problem becomes self-perpetuating.

Proper breathing is also assisted by tonguing. In tonguing, we touch the tip of the tongue to the roof of the mouth just behind the teeth. The student should take care that the tongue does not contact the end of the mouthpiece. Proper tonguing stops the air momentarily, preventing the disintegration of tone and flattening of pitch that occurs when the air is stopped from the lungs. The action of the tongue is the same as saying "tah-tah-taht" or "dah-dah-dahd." I find it is quite helpful to have children sing the tune with the tonguing syllables. This allows them to practice the technique without the distraction of fingerings.

Many students find certain fingerings, like F natural and B flat, to be difficult. This is because they require the lifting of fingers in the middle of the hand while the outer fingers are held down. "Half-hole" fingerings such as C sharp and E flat are also difficult. These challenges result largely from fine motor issues, and some of the best remedies are built into the children's regular program: knitting and clay modeling, for example. However, some children need more fine motor activity to sufficiently develop the finger independence required to play the recorder.

Have the student sit with arms resting on the top of a desk. The angle of the upper arms should be about the same as when playing the recorder, relaxed and not extending outward. The fingers are relaxed and allowed to curl naturally, not held flat against the top of the desk. I refer to the fingers by number. Thumb is simply "thumb," but the others are as follows: index fingers are "1," middle fingers are "2," ring fingers are "3," and pinkies are "4." Have the student gently and rhythmically raise and lower fingers in various groupings. Start with raising each finger independently while the others remain relaxed on the desk top, one hand at a time. Follow this by lifting the same finger on both hands. Then move on to neighboring pairs (T-1; 1-2; 2-3; and 3-4) on single hands and neighboring pairs on both hands. Move them simultaneously and in alternation. Lifting odd-numbered fingers together and even-numbered fingers together is more difficult, and lifting odd and even pairs in alternation is most difficult (for this consider the thumb to be part of the even group, so that the combinations are T-2; 1-3; 2-4). Throughout the exercise, it is vitally important that the hands stay relaxed. If anything begins to hurt or feel strained, stop. This activity, when practiced systematically and rhythmically, helps the student develop the finger independence needed to play the awkward notes successfully.

Patience

As Waldorf teachers, we tend to take pride in our students' aesthetic accomplishments. Their beautiful artwork adorns classroom walls, their drama and music resound in our assembly halls. It can be frustrating, to say the least, to have a student whose sense of pitch or rhythm mars an otherwise exquisite performance, and we certainly want to help such children develop their musicality more fully. However, our motivation should not be for the quality of the performance, but rather for the benefit that musical activity has for that student. By no means should a student with musical challenges be asked to sit out or be relegated to always playing a drum (though the latter is an excellent fallback option for the student with a broken arm!). Neither should a student be pulled from music classes to receive remediation in academic areas. Nor should children be required to take private music lessons in order to participate in the school's instrumental music program. Music is an inclusive art. When we make music together, we meet each other on a higher plane. We transcend our day-to-day idiosyncrasies and differences in the pursuit of the art. We learn to listen to each other, to harmonize, and to resolve dissonance. When an individual child does not perform up to the standard of his or her peers, we may seek to help, but not to exclude. We must work patiently for improvement, but not for perfection. If our assembly presentation is less than ideal, it is no crisis. They may not sound like the Vienna Boys' Choir or the National Youth Orchestra, but that is no matter. It is the engagement, the activity, and the collaboration with peers that are important.

A colleague recently commented on a performance by my middle school orchestra saying, "It may have been a little ragged—any middle school orchestra is—but they were playing their hearts out." To that I would add this thought: When they play their hearts out, their hearts meet, and when their hearts come back home, they are larger than before.

David Gable *has taught music classes and main lesson for over thirty years at the Waldorf School of Cape Cod. He is also well-known as an adult educator, teaching music and curriculum courses at Renewal in Wilton, New Hampshire. David is currently working on a skill-sequenced series of recorder books incorporating music relating to the Waldorf curriculum, soon to be published by Waldorf Publications. An active composer and arranger, his music for strings, recorder ensembles, and SAB chorus, as well as many free music resources for classroom teachers, can be found online at vineyardsoundmusic.com.*