



## Perfect Pitch

by Benjamin Bolden

I wish I had perfect pitch.

When I was younger, I longed for it with an ache like unrequited love.

I remember vividly when I actually encountered the phenomenon first hand. In grade six I had a friend at school who played cello. Somehow I discovered he had perfect pitch. He used to come to my house for lunch occasionally. I never tired of sitting at the piano and quizzing him... ‘what’s this note?’

‘Bb’

‘what’s this one?’

‘E’

‘what about these two together?’

‘F and C.’

He knew them all.

If only...

Perfect pitch would make sight singing a piece of cake! No more need to quietly hum *O Canada* under my breath in the middle of a Bach cantata, desperately trying to determine my entry pitch a minor third above the final note of the tenor line...

All that music I listened to and longed to play myself... I would be able to hear a song on the radio and lift it, note for note; keep my peers enthralled at late night campfire sessions with an endless repertoire of all the best songs!

But perfect pitch is rare. The remarkable ability to identify the pitch of a tone without reference to another or to sing a particular pitch on demand (a skill formally known as absolute pitch) is possible for only 1 in 10 000 people (Ward, 1999).

I had another friend, in high school, who had perfect pitch. (He also played cello, come to think of it.) He used his pitch recognition ability to figure out every single note in Copland’s *Fanfare for the Common Man*. Then he reproduced the piece, performing on percussion and synthesizers, and using a four-track tape recorder to put it all together. Amazing. I wish I could do that.

My relationship with music is littered with lost hopes and unfulfilled wishes – possibilities tasted but never attained. Perhaps that is what sustains the relationship, and keeps it exciting: the lurking potential. Those aspects glimpsed but that always dance out of reach, some so close you might touch them, others as unattainable as the moon... Being able to sight read at the piano. Being able to sing tenor. Being able to hear a complex harmonic progression and *know* the chords involved. Being able to play any number of magnificent instruments that remain, in my

hands, no more than beautifully engineered lumps of wood and strings and metal.

Some of these skills I suppose I possibly could develop...the old dog may have a few tricks left in him yet! But other musical abilities are categorically denied. I simply cannot sing tenor (the plumbing’s not right). And, I will never develop perfect pitch.

According to scientific evidence, no one has ever developed a convincing capability of absolute pitch recognition as an adult (Takeuchi & Hulse, 1993). Those who do acquire absolute pitch tend to do so within a critical period of development, around the age of seven. And those seven-year olds only develop the ability if they have had – by that young age – systematic musical training (Levitin & Rogers, 2005). There is a further caveat; some evidence suggests that only those born with a genetic or neural predisposition will even have the *chance* to learn to recognize pitches in an absolute sense – you need to be born with the right wiring (Baharloo, S. et al. 1998).

And, above all, perfect pitch is the special musical skill that I have longed for. Mostly because it would open the doors of understanding. I would be able to listen to music and just *know* what was going on... “ah, now she’s bringing in the violas and their counter melody starts on a G and they play F#, C, and D while the violins sustain a high E above...”

I could compose, like Mozart, without even going near an instrument! I could pick the pitches from the air, write them down, and play them in my mind...

I could look at a piece of notated music – even something by Shoenberg – and just sing it!

But I realized I would never have perfect pitch. So I set about compensating. I toyed with the notion of working to develop some other remarkable musical ability – perfect rhythm, or perfect timbre, or something. Not quite the same allure, but at least these aspects of music were actually trainable! (Admittedly, I didn’t get very far.) I worked painstakingly on relative pitch, honed my ability to recognize relationships between pitches, chord qualities, etc. I also noted what different pitches felt like when I sang them. I could not pick pitches out of the air, but I could generally come close.

In fact, there is one exception to my pitch perfect dysfunction. I can (usually) sing a Bb without a point of reference. I cannot identify a randomly played pitch as *being* a Bb, but I can produce one if I don’t think about it too much. (I haven’t done this in a while so I just tested myself. I sang what I thought was

a Bb then ran down to the piano in the living room and hit the key. Bang on! My family is probably wondering why I ran through the house singing a Bb drone, but no matter.)

I know exactly where I developed this dubious ability. When I taught middle school band there was a lot of Bb going on. And most often I sang along with whatever the students were playing (not so good for vocal health – bands are loud, and mindlessly singing along is vocally taxing, to say the least). I usually began each class with a warm-up where I would sing a four-note pattern and ask students to use their ears to repeat back what I'd sung. I always started on Bb. And after a while I realized I could find the Bb without thinking about it. I'm pretty sure it's not an ear thing, but rather that I learned the way singing a Bb felt in my vocal tract and body: the position of my larynx and how much energy was required. Anyway, this is as close as I've come to perfect pitch, and I have learned it is not a remarkable phenomenon. With one week of training, randomly selected adults learned to attach a label to a single tone and then to convincingly produce or identify that tone without external reference (Levitin, 2002). Of course five and six year olds, when similarly trained and tested, scored much higher (Russo, F.A. et al., 2003).

As teachers, we have the opportunity to open the doors of musical possibility to those who are entrusted to our care. We have the privilege of helping them move towards achieving music miracles. But there are always limits. And that's part of what we do, too. We acquaint our students with things they will never achieve, with mountain summits they will never reach.

Perhaps the utility of all this in terms of music educating, is the notion that while there are paths that will be blocked for students, music is a maze of many alternative routes. There are countless magnificently varied musical abilities and capabilities to strive for and achieve, and countless journeys to enjoy.

There will always be summits we long to reach yet never gain. But delight may be found in climbing halfway up! We must not neglect to enjoy the view from *here*. And music is so very, very vast; there will always be other pinnacles we haven't even encountered yet. And ones we certainly can achieve with the right motivation, perseverance, and, of course, the right teacher.

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