

# MUSIC THEORY.aargh©

## The Year of the Interval: FOURTHS & FIFTHS (Session 14)

By Dr. Ona Pinsonneault

**Answers to November questions about THIRDS:** F# up to A is a minor 3rd, Ab up to C is a major 3rd, C up to E is a major 3rd, Eb up to G is a major 3rd, D up to F is a minor 3rd, B up to D is a minor 3rd. Brahms "Lullaby" begins with a minor 3rd, "Good-night" (Ladies) begins with a major 3rd, "The Star Spangled Banner" begins with a minor 3rd, and "An-chors" (Away) begins with a major 3rd. Did you get them right?

And now, let's move on to fourths and fifths. **Two whole steps, one-half step**, and two notes **4 letters apart** make up a **Perfect Fourth**. Pairs of notes that are perfect fourths apart are C up to F, D up to G, E up to A, F up to Bb, G up to C, A up to D, and B up to E. (Count two whole steps and one-half step and 4 letters, i.e., C, D, E, F.) Why does one of these pairs have a Bb? Without the flat, the two letters would be 3 whole steps apart. That distance is called an **Augmented Fourth**, F up to B, one-half step larger than Perfect.

If the fourth is turned upside-down, a fifth results. These letters make up Perfect Fifths: C down to F, D down to G, E down to A, F down to Bb, G down to C, A down to D, and B down to E. A **Perfect Fifth** has **3½ whole steps** between the notes and the two notes are **5 letters apart**. Now, F up to C is also a perfect fifth as is G up to D, A up to E, Bb up to

F, C up to G, D up to A, and E up to B. Without the Bb, or if the interval is B up to F, the fifth is called **Diminished**. In this case there are 5 letters (B, C, D, E, F) but only 3 whole steps. That is one-half step smaller than Perfect, so it is called Diminished.

A perfect fifth occurs between the root and fifth of a major or minor triad. (See Session 11, April 2013.) This contributes to the strength of the triad as a **sound**. The Major triad with both a major 3rd and a perfect 5th is a very stable chord. Both of these intervals are considered intervals that have strong **roots**. These intervals duplicate the structure of the **overtone series**. (We will look at the overtone series another day.) Because of this, they create sound at rest, at resolution, at conclusion, but also at beginning (for establishing tonality).

When the fifth is turned upside-down, or **inverted**, it is a fourth and is a less stable interval. The fourth requires resolution, needs to move on to the next sound, and often moves to a third, a more stable sound. As part of the **Tonic triad** C, E, G belonging to the key of C major, if the fifth is written rather than the fourth, the triad is stable. When the **triad is inverted** as: E, G, C or G, C, E, the fifth is no longer used in favor of the fourth. Both of these chords are less stable than the **root position** chord that uses the fifth. Less stability requires motion to resolution, one of the main forward-driving forces in music.

Can you identify these intervals as *Perfect fourths* or *Perfect fifths*?



Fourths or fifths begin these well-known compositions: Which one is which?

1. Amazing (Grace)
2. Twinkle, Twinkle (Little Star)
3. I've Been (Working on the Railroad)

Answers will appear in the next issue of *Clapper Chatter*.

Until next time,

**Dr. P**

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