Intervals 3

Music Fundamentals **14-119-T**

In this lecture, I will give you some more tools to identify intervals.

Complicating Harmony:

A *chord* is simply two or more notes sounding together (or at least in close proximity). If we have two notes sounding simultaneously, then the chord is called a *dyad*. In our study of intervals, or the study of note relationships, we have limited ourselves to *dyads*, but in future lectures, we will further expand our knowledge of harmony by studying *triads*, or chords with three notes. The triads we will study carry a special distinction further yet. They are *tertian* triads. That is, triads that are based primarily on the interval of the 3rd (major and minor).[1] When we analyze, perform , or compose music, are knowledge of its harmony at its genesis is based upon the intervallic relationships between pitches. As you can see, the your ability to understand intervals at this early stage will be crucial for you to explore chords.

Recognizing at sight:

You can alleviate the process of counting 1/2 steps by simply following a few pointers when identifying intervals [see figure1]. The chart below describes a formula for recognizing intervals by how they look on the staff. For example, a 3rd (regardless of whether it is major or minor) will have two notes that share the same visual characteristic [see figure 2]. In other words, if the bottom note is on a line, then the top note will be on a line. Obviously, if the bottom note is on a space, then the top note will be on a space. Remember, we still don't know the quality of the interval (ie., whether it is major or minor) until we place the notes in a clef and count the 1/2 steps. In figure 2, if the bottom note were a G and the top note a B (using treble clef), then we can count that there are four 1/2 steps that separate the two notes (G-G#=1; G#-A=2; A-A#=3; A#-B=4) and identify the interval as a major 3rd.

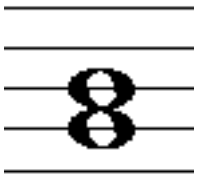
Figure 1

2nds	- line/space or space/line
3rds	- line/line or space/space
4ths	- line/space or space/line
5ths	- line/line or space/space
6ths	- line/space or space/line
7ths	- line/line or space/space

A Note on Analysis:

Analyzing music would be more time-consuming if we didn't abbreviate. In common practice of tonal harmony, we abbreviate a host of various identifications including intervals. For our purposes, all major and minor intervals should be abbreviated using uppercase and lowercase "m's" respectively. For example, instead of writing major 3rd all of the time, we can use M3. Conversely, if we want to indicate a minor 3rd, then we should write, m3. In handwritten analysis, it is common to place a dash above the lowercase "m" to delineate it from an uppercase "m."

Figure 2



These two notes share the same visual characteristics. That is, both notes are placed in the staff on lines. If two notes were placed in spaces, then they would also share the same visual characteristics. Conversely, if one note was on a line and the other note was on a space, then they would not share the same visual characteristic.

[1] We also have chords built on the major and minor 2nd called secundal harmony. Chords built upon the perfect 4th is called quartal harmony. Both of these examples are more advanced and go beyond the scope of this course.

Extending Intervals:
In addition to minor, major, and perfect intervals, we also have diminished and augmented. At times, these called enharmonic intervals when applied to 2nds, 3rds, 6ths, and 7ths. That is because the distance between the two notes is the same as that of a major or minor interval, but due to the spelling of the note, they can't be a 2nd, 3rd, 6th, or 7th. For example, count the number of 1/2 steps between **C** and **D#**. You should count three. Right? However, D is not three steps away from C in the alphabet. It is two! Therefore, this is some type of 2nd, not a minor 3rd, even though it has the same number of 1/2 steps as a minor 3rd. This interval is an augmented 2nd [see figure 3].

Figure 3

Enharmonic intervals

(key: "bb" = double flat; "X" = double sharp)

Name	Abbrev.	Enharmonic	# 1/2 steps	example
Dimished 2nd	D2	unison	0	C to Dbb
Augmented 2nd	A2	minor 3rd	3	C to D#
Diminished 3rd	D3	major 2nd	2	C to Ebb
Augmented 3rd	A3	perfect 4th	5	C to E#
Diminished 4th	D4	major 3rd	4	C to Fb
Augmented 4th	A4	tritone	6	C to F#
Diminished 5th	D5	tritone	6	C to Gb
Augmented 5th	A5	minor 6th	8	C to G#
Diminished 6th	D6	Perfect 5th	7	C to Abb
Augmented 6th	A6	minor 7th	10	C to AX
Diminished 7th	D7	major 6th	9	C to Bbb
Augmented 7th	A7	octave	12	C to B#

Another way of looking at extended intervals is to think of an upper note moving by 1/2 steps [see figure 4]. Regardless of the number of quality of the interval (ie, major, minor, diminished, or augmented), the number of interval remains the same.

At this point, you should be able to begin identifying intervals using the interactive online module. Just like pitch identification, interval recognition takes practice.

Figure 4

Looking at 3rds

		# 1/2 steps
C up to E#	= Augmented 3rd	5
C up to E	= Major 3rd	4
C up to Eb	= Minor 3rd	3
C up to Ebb	= Diminished 3rd	2

Appendix:

Figure 5 shows the visual aspect for quickly identifying interval numbers; however, the quality will be determined by the number of 1/2 steps. Since no clef is given, it is impossible to determine the quality of the interval.

Figure 5