

Hearing Trichords

Trichords are important melodic and harmonic building blocks. Learning to recognize them will help you appreciate a variety of post-tonal repertoire and make it easier to assimilate sets of greater cardinality, particularly hexachords.

All trichords contain three unique pitch classes. There are only 12 ways to combine three pitch classes such that the result is a unique set class, so the trichords are a manageable family of sonorities to study. The trichordal set classes divide logically into three groups based upon their intervallic components: 01-type trichords, 02-type trichords, and 03- and 04-type trichords. The trichords in each group are described below.

Initial Considerations

In Theory Skills IV, the trichords you encounter will occupy no more than one octave in pitch space. A single trichord may therefore appear in as many as six different registral configurations. Consider the trichord [4, 5, 9], which is a member of set class (015). A “closed-position” voicing of this trichord appears in (a), and there are two other ways to arrange its pitch classes within an octave, given in (b) and (c). Inversions of the trichord represent the only other possible voicings (d).

The image shows a musical staff with a treble clef. On the left, the trichord [4, 5, 9] is shown in three configurations: (a) closed position (C4, D4, F4), (b) first inversion (F4, C4, D4), and (c) second inversion (D4, F4, C4). On the right, the first inversion T₁I [4, 5, 9] is shown in three configurations: (d) first inversion (F4, C4, D4), (e) second inversion (D4, F4, C4), and (f) closed position (C4, D4, F4). A dashed line connects the first and second inversions of the first trichord to the first and second inversions of the second trichord, with the label "related by inversion" below it.

Five of the trichordal set classes are inversionally symmetrical: (012), (024), (027), (036), and (048). These will appear in one of only three registral configurations. This is illustrated by the trichord [2, 4, 6], a member of set class (024). The symmetrical trichords have a distinctive sonority that makes them easier to identify.

The image shows a musical staff with a treble clef. On the left, the trichord [2, 4, 6] is shown in three configurations: (a) closed position (C4, E4, G4), (b) first inversion (E4, C4, G4), and (c) second inversion (G4, C4, E4). On the right, the eighth inversion T₈I [2, 4, 6] is shown in three configurations: (d) first inversion (E4, C4, G4), (e) second inversion (G4, C4, E4), and (f) closed position (C4, E4, G4). The label "no new configurations" is centered below the staff.

Sound good? Well, the presentation inventory increases considerably when trichords are stated melodically: within an octave, the non-symmetrical set classes can be written 18 different ways. Luckily, any ordered presentation will reduce to one of the six (or three) registral (harmonic) voicings, so it is best to start practicing with these.

Finally, as you review the information below, remember that translation between interval class and interval is simpler given that trichords in Theory Skills IV must span no more than an octave. For example, members of interval class 1 may sound like minor seconds or major sevenths, but not minor ninths.

01-Type Trichords

The 01-type trichords are so named because their set classes are of the form (01*x*). Thus, they contain at least one instance of interval class 1. There are five of them in total: (012), (013), (014), (015), and (016).

(012) <210000>

With no consonant interval classes, (012) is the most dissonant of the trichords. It is a chromatic cluster that sounds harsh in virtually any voicing.

(013) <111000>

The less-crunchy (013) contains an instance of interval class 3. It is a diatonic segment (e.g., *mi-fa-sol*) and appears between three consecutive pitches in an octatonic scale.

(014) <101100>

A very distinctive sonority, (014) contains instances of interval classes 3 and 4. Some find it has a jazzy sound. It also recalls the octatonic and hexatonic collections.

(015) <100110>

Unlike the preceding, (015) contains a perfect consonance: an instance of interval class 5. For most, it is the prettiest 01-type trichord. It is also a diatonic subset (e.g., *mi-fa-la*).

(016) <100011>

No other trichord of the 01-type involves a tritone, so that is the interval to listen for if you hear a perfect consonance and must decide between (015) and (016).

02-Type Trichords

The 02-type trichords are sets of the variety (02*x*). They contain at least one instance of interval class 2 but do *not* involve interval class 1. There are four of them in total: (024), (025), (026), and (027). All four are diatonic subsets.

(024) <020100>

In closed position especially, (024) recalls the major scale: *do-re-mi*. It is also a segment of the whole-tone scale but lacks the tritone found in (026).

(025) <010101>

Both (025) and (027) contain an instance of interval class 5. To pick out (025), listen for the interval class 3. Some find that (025) recalls the minor-minor seventh chord.

(026) <011010>

Like (024), (026) is a subset of the whole-tone collection but contains its distinctive tritone. At times, (026) may suggest a major-minor (dominant) seventh chord.

(027) <010020>

The (027) often sounds like a triad with a suspended third (i.e., a “sus chord”). It also appears characteristically as a stack of perfect fourths (e.g., $D^4-G^4-C^5$).

03- and 04-Type Trichords

The 03- and 04-type trichords are sets that contain *no instances* of interval class 1 or 2. You will recognize them as the diminished, major, minor, and augmented triads, which encompass three set classes: (036), (037), and (048).

(036) <002001>

The diminished triad.

(037) <001110>

Major and minor triads are related by inversion and therefore members of the same set class (e.g., $T_0I [0, 4, 7] = [0, 8, 5]$).

(048) <000300>

The augmented triad.