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# Invertible counterpoint

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"Invertible" counterpoint occurs when two parts are written in such a way that their registral disposition can be exchanged—that is, the upper part can become the lower part, and vice versa.

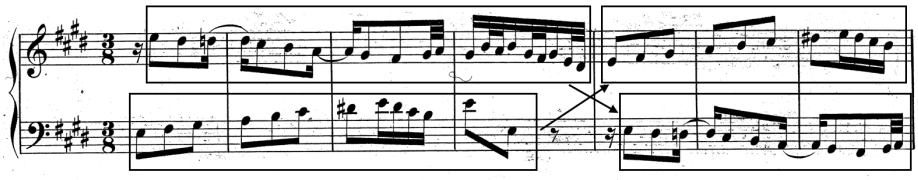


**Figure 1:** Bach, Invention no. 6 in E major

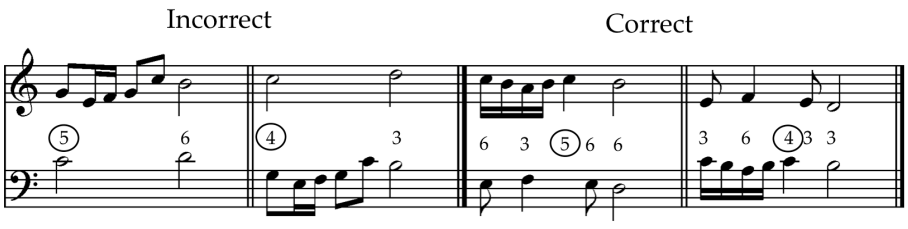
The main challenge in writing invertible counterpoint is making sure that the dissonance treatment remains correct when the parts are inverted. To see what this involves, we need to consider what happens to the various intervals when they are inverted:

- 8ves/unisons becomes 8ves/unisons
- 2nds become 7ths, and vice versa
- 3rds become 6ths, and vice versa
- **4ths become 5ths, and vice versa**

In the case of the first three items above, consonances remain consonances and dissonances remain dissonances. Thus these intervals require no special attention in invertible counterpoint. But the last item is different: here, **a consonant interval (the 5th) becomes a dissonant interval (the 4th), and vice versa**. What this means is that, when writing invertible counterpoint, **you must treat the 5th as though it were a dissonance**, so that, upon inverting the parts, your counterpoint will still be correct.

To illustrate, consider the two examples in the following figure.

- In the first example, the 5th is treated as a consonance, arriving unprepared on the downbeat and skipped away from (as one could do with any other chord tone). When the example is inverted, the 5th becomes an incorrectly treated dissonant fourth. (Note that the first measure would be perfectly acceptable as non-invertible counterpoint.)
- In the second example, the 5th is treated like a dissonant suspension, "prepared" by a consonant 3rd and "resolving" by step to a 6th. Thus, upon inversion, the 5th becomes a correctly treated dissonant fourth.




**Notes on invertible counterpoint**

Don't confuse *invertible counterpoint* (where the order of the voices is changed) with *melodic inversion* (where a melodic line is turned "upside down" such that ascending intervals are replaced with descending intervals and vice versa), or with *chordal inversion* (which refers to the question of which pitch of a chord is found in the bass). Clearly, music theory overuses the word "inversion," but unfortunately it's too late to do anything about that now.

Technically, this handout addresses *invertible counterpoint at the octave*, in which, upon inversion, each voice is moved up or down by one or more octaves. It is also possible to write invertible counterpoint at other intervals, most commonly at the 10th or 12th. But whereas invertible counterpoint at the octave is an ubiquitous and indispensable technique for writing tonal counterpoint, invertible counterpoint at these other intervals is quite unusual. It is more of a special effect, an erudite way of showing off reserved for displays of contrapuntal wizardry. (A good example of such wizardry is Bach's fugue in G minor from the second book of the Well-Tempered Clavier.)

You might observe that, when writing invertible counterpoint, it's impossible for both dispositions of the voices to have a root position authentic cadence. (Since a root position authentic cadence requires the bassline $\hat{5}\ \hat{1}$, and either at least one of the parts won't have this bassline, or the parts will be in parallel octaves.) For this reason, usually, invertible counterpoint won't conclude with a cadence. Instead, if a cadence is desired, either the composer can

- adjust the bassline slightly to achieve a cadence. (I.e., "cheat.")
- write a little bit of extra music after the invertible counterpoint concludes to realize a cadence.