

# HUMMING AND SINGING WHILE PLAYING: A METHOD

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## PART 1: HUMMING WHILE PLAYING

Note: At the start, all hummed pitches can be transposed up an octave if it better fits in your comfortable vocal range. Each entire exercise can also be transposed into any key for the same purpose. As you become more comfortable with humming while playing, however, your hummed range should roughly equal your normal vocal range.

1. This first exercise should be done without the clarinet. Before beginning, close your mouth and puff out your cheeks until they are filled with air. Your tongue and soft palate should move to a position as if you are making an “eng” sound as in the word “cling.” Once you have done this, breathe in through your nose during the whole rests in mm. 1, 3, 5, and 7. Without changing anything in your oral cavity, hum out through your nose as indicated in mm. 2, 4, 6, and 8. Note where your tongue and soft palate meet—when adding the clarinet in the exercises that follow, this should feel the same during humming, since the oral cavity must be closed off from the rest of the vocal tract to properly hum and play.

$\text{♩} = 40-60$

Played

Hummed

*mf*

2. Focus on shifting quickly from standard clarinet embouchure to puffed cheeks with the “eng” syllable and back again. In mm. 2 and 4, after puffing your cheeks out, try to inhale through your nose on beat 2. This will ensure that your tongue and soft palate are indeed closing your oral cavity off from the rest of your vocal tract, as you practiced without the clarinet in Exercise 1. As the length of transition time between playing and humming gets shorter and shorter, you will no longer have time to inhale between played and hummed notes. Make sure your cheeks still puff out and your tongue and soft palate meet in an “eng” syllable just as before.

Played

Hummed

3. In this exercise, focus on being able to quickly produce the hummed pitches and immediately shift back to the regular air stream. As in Exercise 2, you no longer have time to inhale between played and hummed notes.

Played

Hummed

4. In this exercise, puff out your cheeks as in Exercises 1-3, but instead of humming, you will play the clarinet pitch by gradually squeezing the air stored in your oral cavity through the clarinet. Use the whole rests in mm. 1, 3, 5, and 7 to breathe and make sure that your oral cavity is set properly, and then simply play the written pitch without changing from the “eng” syllable. When you run out of air in your oral cavity, the sound should stop. It is okay if you run out of air quickly and cannot play a whole note at first—just practice squeezing the air out with your cheeks slower or faster to change how long you can maintain a played pitch using only “cheek air.”

Played

Hummed

5. The point of this exercise is to transition from playing with a regular air stream to playing with air stored in the oral cavity, as in Exercise 4. The whole notes in mm. 1, 3, 5, and 7 should all begin using a regular air stream. The whole notes in mm. 2, 4, 6, and 8 should all be played using only cheek air. As in Exercise 4, it is okay if you cannot hold the whole notes played with “cheek air” for their full values. Continue to adjust how quickly you expel the air from your oral cavity with your cheeks. In order to smoothly transition from one air stream to another, you must quickly and seamlessly connect three steps that you have already practiced in Exercises 1-4. First, while playing normally, puff your cheeks. Next, while still using the regular air stream with your cheeks puffed out, move your tongue to the “eng” syllable position to seal off the air stored in your oral cavity from the rest of your vocal tract. Finally, as you are finishing the previous step, you must coordinate your cheeks to begin expelling “cheek air” just as your tongue moves to the “eng” position and cuts off the regular air stream. In order to smoothly transition, the final two steps must occur almost simultaneously.

Played

Hummed

6. The played portion of this exercise should be performed identically to Exercise 5, beginning the whole notes in mm. 1, 3, 5, and 7 with a regular air stream before transitioning to cheek air for the whole notes in mm. 2, 4, 6, and 8. The only difference in this exercise is now every time you switch to cheek air, you must simultaneously hum a pitch for one beat. You have already practiced each isolated element required for Exercise 6 in Exercises 1-5, but now you must simply put them all together.

The musical notation for Exercise 6 consists of two staves in 4/4 time. The top staff, labeled 'Played', contains four whole notes on a middle C line, with a *mf* dynamic marking at the beginning. The bottom staff, labeled 'Hummed', contains quarter notes on a middle C line, with a *mf* dynamic marking at the beginning. The notes in the 'Hummed' staff are positioned on the first beat of measures 2, 4, 6, and 8, corresponding to the transitions in the 'Played' staff.

7. In this exercise, you will add the last fundamental element of humming while playing, which is the transition back to the regular air stream. Instead of playing the whole notes in mm. 2, 4, 6, and 8 using only “cheek air,” you will now transition back to the regular air stream as soon as you have hummed the quarter notes on beat one of each of those measures. To transition back, you essentially just reverse the initial transition. As you are expelling cheek air into the clarinet, you will move your tongue away from your soft palate and back to the position it started in when you were playing normally. This will once again connect your oral cavity to the rest of your vocal tract, so you must begin generating a regular air stream just as you start to move your tongue out of the “eng” syllable position.

The musical notation for Exercise 7 is identical to Exercise 6, consisting of two staves in 4/4 time. The top staff, labeled 'Played', contains four whole notes on a middle C line, with a *mf* dynamic marking at the beginning. The bottom staff, labeled 'Hummed', contains quarter notes on a middle C line, with a *mf* dynamic marking at the beginning. The notes in the 'Hummed' staff are positioned on the first beat of measures 2, 4, 6, and 8, corresponding to the transitions in the 'Played' staff.

8. Play this exercise using the same principles as in Exercise 7. The hummed note is now longer, so the “cheek air” must also be used for a longer period. Any time you use the humming while playing technique, you must also utilize “cheek air” with a sealed off oral cavity for the duration of the hummed notes.

Exercise 8 musical notation. The 'Played' staff (treble clef, 4/4 time) contains a sequence of eighth notes: G4, A4, B4, C5, B4, A4, G4, F#4. The 'Hummed' staff (treble clef, 4/4 time) contains a sequence of half notes: G4, A4, B4, C5, B4, A4, G4, F#4. The hummed notes are longer than the played notes.

9. Once you are comfortable with the fundamentals of humming while playing, you can then begin to hum and play more complex lines. This exercise keeps the same played pitch, but adds an ascending scale in the hummed line. Also practice adding played dynamic changes while maintaining the forte hummed dynamic.

Exercise 9 (first part) musical notation. The 'Played' staff (treble clef, 4/4 time) contains a sequence of eighth notes: G4, A4, B4, C5, B4, A4, G4, F#4. The 'Hummed' staff (treble clef, 4/4 time) contains a sequence of half notes: G4, A4, B4, C5, B4, A4, G4, F#4. The hummed notes are longer than the played notes. A forte (*f*) dynamic marking is present on the first note of the played staff.

Exercise 9 (second part) musical notation. The 'Played' staff (treble clef, 4/4 time) contains a sequence of eighth notes: G4, A4, B4, C5, B4, A4, G4, F#4. The 'Hummed' staff (treble clef, 4/4 time) contains a sequence of half notes: G4, A4, B4, C5, B4, A4, G4, F#4. The hummed notes are longer than the played notes. A piano (*p*) dynamic marking is present on the first note of the played staff, and a forte (*f*) dynamic marking is present on the first note of the hummed staff.

10. This exercise expands the range from Exercise 9, while also fitting two hummed notes into one expulsion of “cheek air.” Focus on quickly and accurately changing hummed notes, but while still humming each one for the full duration. Also try matching the changing played dynamic with your humming each time the played dynamic changes.

The musical notation for Exercise 10 consists of two systems, each with a 'Played' staff (treble clef) and a 'Hummed' staff (treble clef). The time signature is 4/4.

**System 1:**

- Played:** Four measures of half notes with dynamic markings *p*, *mp*, *mf*, and *f* respectively. Each note has a slur over it.
- Hummed:** Four measures of half notes. The first measure has a whole rest, followed by half notes in measures 2, 3, and 4. Dynamic markings *p*, *mp*, *mf*, and *f* are placed below the notes.

**System 2:**

- Played:** Four measures of half notes with dynamic markings *mf*, *mp*, *p*, and *pp* respectively. Each note has a slur over it.
- Hummed:** Four measures of half notes. The first measure has a whole rest, followed by half notes in measures 2, 3, and 4. Dynamic markings *mf*, *mp*, *p*, and *pp* are placed below the notes.

11. This exercise shortens recovery time between each humming section . Try to make each four-measure section between breath marks continuous, and use the half rests to quickly replenish “cheek air” in time to hum the next half note.

The musical notation for Exercise 11 consists of two systems, each with a 'Played' staff (treble clef) and a 'Hummed' staff (treble clef). The time signature is 4/4.

**System 1:**

- Played:** Four measures of half notes with a dynamic marking of *mf* at the beginning. Each note has a slur over it.
- Hummed:** Four measures of half notes. The first measure has a whole rest, followed by half notes in measures 2, 3, and 4. A dynamic marking of *mf* is placed below the first note.

**System 2:**

- Played:** Four measures of half notes. Each note has a slur over it.
- Hummed:** Four measures of half notes. The first measure has a whole rest, followed by half notes in measures 2, 3, and 4.

12. This exercise combines the shorter recovery times from Exercise 11 with the faster hummed note changes from Exercise 10, in addition to continuing to expand the hummed range and adding hummed octave leaps at the end. Mastering this exercise should make you more comfortable with utilizing more of the technical possibilities of the vocalized element of humming while playing.

The first system of Exercise 12 consists of two staves. The 'Played' staff (treble clef) contains a series of eighth notes with a slur, starting on a middle C and ascending to a G. The 'Hummed' staff (treble clef) contains a series of eighth notes starting on a middle C and ascending to a G. Both parts are marked with a piano (*p*) dynamic.

The second system also consists of two staves. The 'Played' staff contains a series of eighth notes with a slur, starting on a middle C and ascending to a G. The 'Hummed' staff contains a series of eighth notes starting on a middle C and ascending to a G. The 'Played' part is marked with a fortissimo (*ff*) dynamic, and the 'Hummed' part is marked with a piano (*p*) dynamic.

13. In this exercise, focus on becoming comfortable with changing played notes while humming. You can repeat the first measure several times at first before moving on to the subsequent measures to get comfortable with the repeated played pattern. Once you can hum and play the pattern together, listen to make sure that your played notes remain even as you shift to and from humming.

The first system of Exercise 13 consists of two staves. The 'Played' staff (treble clef) contains a series of eighth notes with a slur, starting on a middle C and ascending to a G. The 'Hummed' staff (treble clef) contains a series of eighth notes starting on a middle C and ascending to a G. The 'Played' part is marked with a mezzo-piano (*mp*) dynamic, and the 'Hummed' part is marked with a fortissimo (*f*) dynamic.

The second system also consists of two staves. The 'Played' staff contains a series of eighth notes with a slur, starting on a middle C and ascending to a G. The 'Hummed' staff contains a series of eighth notes starting on a middle C and ascending to a G. The 'Played' part is marked with a mezzo-piano (*mp*) dynamic, and the 'Hummed' part is marked with a fortissimo (*f*) dynamic.

14. Focus on making the crescendos and diminuendos in the played part as smooth as possible, just as you make the transitions (particularly at the top of the played arpeggio) between air streams as smooth as possible to eliminate any audible breaks in the sound.

Exercise 14 musical score. The 'Played' part (top staff) features eighth-note triplets in 4/4 time, with dynamic markings *p*, *f*, *p*, *f*, *p*, *f*. The 'Hummed' part (bottom staff) features quarter notes in 4/4 time, with dynamic markings *p*, *mp*, *mf*, *f*. A large slur covers the first four measures of both parts.

15. Start this exercise slowly, and work to coordinate the played and hummed eighth notes—particularly those in parallel motion in m. 3. Additionally, practice incorporating the breath mark before the last measure so that you can begin the last measure with humming and playing simultaneously, rather than starting with just playing and later adding humming.

Exercise 15 musical score. The 'Played' part (top staff) features eighth-note triplets in 4/4 time, with dynamic markings *mf*, *p*. The 'Hummed' part (bottom staff) features quarter notes in 4/4 time, with dynamic markings *mf*, *f*, *p*. A large slur covers the first four measures of both parts.



16. In this exercise, work on maintaining independent rhythms in the played and hummed lines. It may be useful to play the hummed line first to ensure that it is in your ear prior to hum it. Quickly reloading “cheek air” is also crucial when you have only an eighth note to replenish your “cheek air” supply.

The image displays four systems of musical notation for exercise 16, each consisting of a 'Played' staff and a 'Hummed' staff. The music is in 4/4 time.

- System 1:** The 'Played' staff features eighth-note triplets starting on G4, moving up to B4, then down to E4, and finally to C4. The 'Hummed' staff begins with a whole rest, followed by eighth notes G4, F4, E4, and D4. Dynamics: *mf* for Played, *f* for Hummed.
- System 2:** The 'Played' staff continues the triplet pattern. The 'Hummed' staff has eighth notes G4, F4, E4, and D4, followed by a whole rest. Dynamics: *f* for Hummed.
- System 3:** The 'Played' staff continues the triplet pattern. The 'Hummed' staff has eighth notes G4, F4, E4, and D4, followed by a whole rest. Dynamics: *f* for Hummed.
- System 4:** The 'Played' staff continues the triplet pattern. The 'Hummed' staff has eighth notes G4, F4, E4, and D4, followed by a whole rest. Dynamics: *mp* for Hummed.

A large slur encompasses the first three systems, indicating a continuous exercise. The fourth system concludes with a double bar line.

17. The purpose of this atonal exercise is to prepare you to work on pieces that use humming while playing in more melodically and harmonically challenging ways. Rather than having a simple melody and accompaniment or pedal with scalar patterns, this exercise has two lines that do not fit together in an easily identifiable way. Therefore, it is recommended that you practice each line separately before combining the two to create independence between the hummed and played lines.

Played *mp*

Hummed *f*

Played

Hummed

Played

Hummed

Played

Hummed

Played

Hummed

## PART 2: SINGING WHILE PLAYING

Note: All sung pitches can be transposed up an octave if it better fits your comfortable vocal range. Each entire exercise can also be transposed to any key for the same purpose. As you become more comfortable with singing while playing, your singing range will likely expand. However, the top of your range will likely not reach as high as in humming while playing, since the increased pressure demands limit the upper range of this technique.

18. This exercise is intended to prepare you for singing while playing. After playing each pitch, keep your mouthpiece in your mouth and avoid making any changes in your oral cavity. Simply switch from playing to singing with the mouthpiece in your mouth. You can think of using an “uh” syllable as in the word “gut” to generate the sung pitch.

$\text{♩} = 40-60$

The exercise consists of two systems of musical notation, each with a 'Played' staff and a 'Sung' staff. The time signature is 4/4, with a tempo marking of  $\text{♩} = 40-60$ . The 'Played' staff contains a sequence of notes: quarter, half, quarter, half, quarter, half, quarter, half. The 'Sung' staff contains a sequence of notes: quarter, half, quarter, half, quarter, half, quarter, half. The first note of the 'Sung' staff is marked with a mouthpiece icon and the dynamic *mf*.

19. You can now combine both singing and playing. The first played pitch is a reference for when you start singing in the second measure. Keep the sung pitch steady, and try increasing the airflow to generate the simultaneous played pitch. It will likely feel like you are exerting significantly more effort to produce the played pitch than in standard playing, since you must generate enough air pressure to make both your vocal folds and your reed vibrate.

The musical score for 'The Rose Tree' is presented in two systems. Each system contains a 'Played' staff and a 'Sung' staff, both in 4/4 time. The 'Played' staff uses a treble clef and features a melody of quarter notes with a dynamic marking of *mf*. The 'Sung' staff uses a treble clef and features a melody of half notes with a dynamic marking of *mf*. The lyrics 'The Rose Tree' are written below the 'Sung' staff.

20. In this exercise, focus on first being able to generate a sung pitch after the played pitch has started, rather than the other way around. Once you can do this, maintain a steady sung pitch while going up and down the scale in the played part. You should hear the “beating” effect become more or less pronounced as different pitches are played, particularly if you are playing with enough air to generate strong sung and played pitches. After the breath mark, you now have only one beat in the played part to prepare to add the sung pitch. Practice being able to quickly add the necessary air pressure on your vocal folds to be able to generate a sung pitch right in time.

The musical score for 'The Rose Tree' is presented in two staves. The top staff, labeled 'Played', is in 4/4 time and features a melody starting on a treble clef with a key signature of one flat (B-flat). The melody begins with a half note G4, followed by a quarter note A4, and then a series of eighth notes: B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7, D7, E7, F7, G7, A7, B7, C8, D8, E8, F8, G8, A8, B8, C9, D9, E9, F9, G9, A9, B9, C10, D10, E10, F10, G10, A10, B10, C11, D11, E11, F11, G11, A11, B11, C12, D12, E12, F12, G12, A12, B12, C13, D13, E13, F13, G13, A13, B13, C14, D14, E14, F14, G14, A14, B14, C15, D15, E15, F15, G15, A15, B15, C16, D16, E16, F16, G16, A16, B16, C17, D17, E17, F17, G17, A17, B17, C18, D18, E18, F18, G18, A18, B18, C19, D19, E19, F19, G19, A19, B19, C20, D20, E20, F20, G20, A20, B20, C21, D21, E21, F21, G21, A21, B21, C22, D22, E22, F22, G22, A22, B22, C23, D23, E23, F23, G23, A23, B23, C24, D24, E24, F24, G24, A24, B24, C25, D25, E25, F25, G25, A25, B25, C26, D26, E26, F26, G26, A26, B26, C27, D27, E27, F27, G27, A27, B27, C28, D28, E28, F28, G28, A28, B28, C29, D29, E29, F29, G29, A29, B29, C30, D30, E30, F30, G30, A30, B30, C31, D31, E31, F31, G31, A31, B31, C32, D32, E32, F32, G32, A32, B32, C33, D33, E33, F33, G33, A33, B33, C34, D34, E34, F34, G34, A34, B34, C35, D35, E35, F35, G35, A35, B35, C36, D36, E36, F36, G36, A36, B36, C37, D37, E37, F37, G37, A37, B37, C38, D38, E38, F38, G38, A38, B38, C39, D39, E39, F39, G39, A39, B39, C40, D40, E40, F40, G40, A40, B40, C41, D41, E41, F41, G41, A41, B41, C42, D42, E42, F42, G42, A42, B42, C43, D43, E43, F43, G43, A43, B43, C44, D44, E44, F44, G44, A44, B44, C45, D45, E45, F45, G45, A45, B45, C46, D46, E46, F46, G46, A46, B46, C47, D47, E47, F47, G47, A47, B47, C48, D48, E48, F48, G48, A48, B48, C49, D49, E49, F49, G49, A49, B49, C50, D50, E50, F50, G50, A50, B50, C51, D51, E51, F51, G51, A51, B51, C52, D52, E52, F52, G52, A52, B52, C53, D53, E53, F53, G53, A53, B53, C54, D54, E54, F54, G54, A54, B54, C55, D55, E55, F55, G55, A55, B55, C56, D56, E56, F56, G56, A56, B56, C57, D57, E57, F57, G57, A57, B57, C58, D58, E58, F58, G58, A58, B58, C59, D59, E59, F59, G59, A59, B59, C60, D60, E60, F60, G60, A60, B60, C61, D61, E61, F61, G61, A61, B61, C62, D62, E62, F62, G62, A62, B62, C63, D63, E63, F63, G63, A63, B63, C64, D64, E64, F64, G64, A64, B64, C65, D65, E65, F65, G65, A65, B65, C66, D66, E66, F66, G66, A66, B66, C67, D67, E67, F67, G67, A67, B67, C68, D68, E68, F68, G68, A68, B68, C69, D69, E69, F69, G69, A69, B69, C70, D70, E70, F70, G70, A70, B70, C71, D71, E71, F71, G71, A71, B71, C72, D72, E72, F72, G72, A72, B72, C73, D73, E73, F73, G73, A73, B73, C74, D74, E74, F74, G74, A74, B74, C75, D75, E75, F75, G75, A75, B75, C76, D76, E76, F76, G76, A76, B76, C77, D77, E77, F77, G77, A77, B77, C78, D78, E78, F78, G78, A78, B78, C79, D79, E79, F79, G79, A79, B79, C80, D80, E80, F80, G80, A80, B80, C81, D81, E81, F81, G81, A81, B81, C82, D82, E82, F82, G82, A82, B82, C83, D83, E83, F83, G83, A83, B83, C84, D84, E84, F84, G84, A84, B84, C85, D85, E85, F85, G85, A85, B85, C86, D86, E86, F86, G86, A86, B86, C87, D87, E87, F87, G87, A87, B87, C88, D88, E88, F88, G88, A88, B88, C89, D89, E89, F89, G89, A89, B89, C90, D90, E90, F90, G90, A90, B90, C91, D91, E91, F91, G91, A91, B91, C92, D92, E92, F92, G92, A92, B92, C93, D93, E93, F93, G93, A93, B93, C94, D94, E94, F94, G94, A94, B94, C95, D95, E95, F95, G95, A95, B95, C96, D96, E96, F96, G96, A96, B96, C97, D97, E97, F97, G97, A97, B97, C98, D98, E98, F98, G98, A98, B98, C99, D99, E99, F99, G99, A99, B99, C100, D100, E100, F100, G100, A100, B100, C101, D101, E101, F101, G101, A101, B101, C102, D102, E102, F102, G102, A102, B102, C103, D103, E103, F103, G103, A103, B103, C104, D104, E104, F104, G104, A104, B104, C105, D105, E105, F105, G105, A105, B105, C106, D106, E106, F106, G106, A106, B106, C107, D107, E107, F107, G107, A107, B107, C108, D108, E108, F108, G108, A108, B108, C109, D109, E109, F109, G109, A109, B109, C110, D110, E110, F110, G110, A110, B110, C111, D111, E111, F111, G111, A111, B111, C112, D112, E112, F112, G112, A112, B112, C113, D113, E113, F113, G113, A113, B113, C114, D114, E114, F114, G114, A114, B114, C115, D115, E115, F115, G115, A115, B115, C116, D116, E116, F116, G116, A116, B116, C117, D117, E117, F117, G117, A117, B117, C118, D118, E118, F118, G118, A118, B118, C119, D119, E119, F119, G119, A119, B119, C120, D120, E120, F120, G120, A120, B120, C121, D121, E121, F121, G121, A121, B121, C122, D122, E122, F122, G122, A122, B122, C123, D123, E123, F123, G123, A123, B123, C124, D124, E124, F124, G124, A124, B124, C125, D125, E125, F125, G125, A125, B125, C126, D126, E126, F126, G126, A126, B126, C127, D127, E127, F127, G127, A127, B127, C128, D128, E128, F128, G128, A128, B128, C129, D129, E129, F129, G129, A129, B129, C130, D130, E130, F130, G130, A130, B130, C131, D131, E131, F131, G131, A131, B131, C132, D132, E132, F132, G132, A132, B132, C133, D133, E133, F133, G133, A133, B133, C134, D134, E134, F134, G134, A134, B134, C135, D135, E135, F135, G135, A135, B135, C136, D136, E136, F136, G136, A136, B136, C137, D137, E137, F137, G137, A137, B137, C138, D138, E138, F138, G138, A138, B138, C139, D139

21. For this exercise, practice generating strong sung pitches while keeping the played line steady. Just as in Exercise 20, the “beating” effect will change in intensity as the sung pitches change. Additionally, you may feel yourself having to exert more effort as the sung pitches get higher. This is normal, since singing higher pitches requires more pressure to be applied to the vocal folds.

22. When working on this exercise, focus on matching the played pitch in the sung part each time the sung part ascends. When the played part ascends, keep the sung part steady.

23. Try to start both the sung and played pitches in this exercise together at precisely the same time. To do this, you must be prepared to use enough air pressure from the start. If you need to, you can softly play the first pitch for reference before beginning.

24. As the sung part in this exercise ascends to its peak, you may have difficulty producing the upper notes. When you find the highest note that you can produce without straining, drop an octave when you go beyond this. One of the goals of these exercises is to determine your comfortable singing while playing range, which should be substantially smaller than in regular singing or humming while playing. If you feel yourself straining, do not attempt to push through this, but simply drop the octave.

Played *mf*

Sung *mf*

25. Practice each part in this exercise slowly before putting them together in small chunks of two measures or less. The independence of the lines will likely make this exercise more difficult than the prior exercises. Practice hearing both the horizontal intervals from one sung pitch to the next and the vertical intervals as the sung pitches relate to the played pitches.

Played *f*

Sung *f*

26. In this exercise, the sung part moves much faster than in previous exercises, but the repeated chromatic pattern should not be difficult to master. Anticipate the leaps from one half note to the next, and be ready to start the sung pattern again on the new pitch each time.

Played

Sung

*f*

*mp*

Played

Sung

*f*

27. The sung pitches in this exercise should be emphasized for maximum distortion. Each time a sung pitch is present, it was played just two beats prior. You can practice either aurally locking onto that pitch when you play it to prepare yourself to sing it, or simply practice hearing a minor second above or below the played pitch before you produce it. Either way, the end result should be an intensely distorted pitch, until the final consonant interval in the last measure.

The musical score for exercise 27 consists of three systems, each with a 'Played' staff and a 'Sung' staff, in 4/4 time.

**System 1:**

- Played:** Starts with a forte (*f*) dynamic. The melody consists of eighth and quarter notes: D4, B3, A3, G3, F#3, E3, D3, C3, B2, A2, G2, F#2, E2, D2, C2, B1, A1, G1, F#1, E1, D1, C1, B0, A0, G0, F#0, E0, D0, C0, B-1, A-1, G-1, F#-1, E-1, D-1, C-1, B-2, A-2, G-2, F#-2, E-2, D-2, C-2, B-3, A-3, G-3, F#-3, E-3, D-3, C-3, B-4, A-4, G-4, F#-4, E-4, D-4, C-4, B-5, A-5, G-5, F#-5, E-5, D-5, C-5, B-6, A-6, G-6, F#-6, E-6, D-6, C-6, B-7, A-7, G-7, F#-7, E-7, D-7, C-7, B-8, A-8, G-8, F#-8, E-8, D-8, C-8, B-9, A-9, G-9, F#-9, E-9, D-9, C-9, B-10, A-10, G-10, F#-10, E-10, D-10, C-10, B-11, A-11, G-11, F#-11, E-11, D-11, C-11, B-12, A-12, G-12, F#-12, E-12, D-12, C-12, B-13, A-13, G-13, F#-13, E-13, D-13, C-13, B-14, A-14, G-14, F#-14, E-14, D-14, C-14, B-15, A-15, G-15, F#-15, E-15, D-15, C-15, B-16, A-16, G-16, F#-16, E-16, D-16, C-16, B-17, A-17, G-17, F#-17, E-17, D-17, C-17, B-18, A-18, G-18, F#-18, E-18, D-18, C-18, B-19, A-19, G-19, F#-19, E-19, D-19, C-19, B-20, A-20, G-20, F#-20, E-20, D-20, C-20, B-21, A-21, G-21, F#-21, E-21, D-21, C-21, B-22, A-22, G-22, F#-22, E-22, D-22, C-22, B-23, A-23, G-23, F#-23, E-23, D-23, C-23, B-24, A-24, G-24, F#-24, E-24, D-24, C-24, B-25, A-25, G-25, F#-25, E-25, D-25, C-25, B-26, A-26, G-26, F#-26, E-26, D-26, C-26, B-27, A-27, G-27, F#-27, E-27, D-27, C-27, B-28, A-28, G-28, F#-28, E-28, D-28, C-28, B-29, A-29, G-29, F#-29, E-29, D-29, C-29, B-30, A-30, G-30, F#-30, E-30, D-30, C-30, B-31, A-31, G-31, F#-31, E-31, D-31, C-31, B-32, A-32, G-32, F#-32, E-32, D-32, C-32, B-33, A-33, G-33, F#-33, E-33, D-33, C-33, B-34, A-34, G-34, F#-34, E-34, D-34, C-34, B-35, A-35, G-35, F#-35, E-35, D-35, C-35, B-36, A-36, G-36, F#-36, E-36, D-36, C-36, B-37, A-37, G-37, F#-37, E-37, D-37, C-37, B-38, A-38, G-38, F#-38, E-38, D-38, C-38, B-39, A-39, G-39, F#-39, E-39, D-39, C-39, B-40, A-40, G-40, F#-40, E-40, D-40, C-40, B-41, A-41, G-41, F#-41, E-41, D-41, C-41, B-42, A-42, G-42, F#-42, E-42, D-42, C-42, B-43, A-43, G-43, F#-43, E-43, D-43, C-43, B-44, A-44, G-44, F#-44, E-44, D-44, C-44, 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