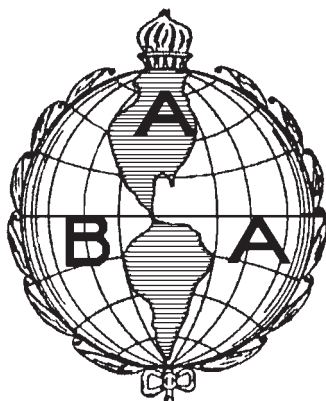


The American Bandmasters Association



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HECTOR BERLIOZ'S *GRANDE SYMPHONIE FUNÈBRE ET TRIOMPHALE*: CONTEXT, STYLISTIC ANALYSIS, AND PERFORMANCE CONSIDERATIONS

Jonathan Caldwell

As one of the first symphonies for band composed by one of the foremost symphonic composers of the 19th century, Hector Berlioz's *Grande symphonie funèbre et triomphale*, op. 15 is a significant and important part of band history. It is curious, then, that the piece is often placed on the periphery of band repertoire and scholarship.¹ In fact, the College Band Directors National Association Report only lists twenty full performances and nine partial ones of *Symphonie funèbre* between 1984 and 2020.²

While some may have relegated *Symphonie funèbre* to the dustbin of history,³ its popularity and importance during Berlioz's lifetime is impossible to deny. In fact, on February 5, 1842, Richard Wagner wrote to Robert Schumann after attending a performance of the piece earlier that week:⁴

Not long ago [Berlioz] gave a concert which systematically drove people insane. Those who had not already been driven mad with boredom and *dégout* certainly had been by the end of the Apotheosis of his July Symphony—but out of *joy*; that is the remarkable thing: in this last movement there are passages so magnificent and sublime that they can *never* be surpassed.⁵

Given the piece's place in band history, its popularity during Berlioz's lifetime, and its unique position in Berlioz's symphonic catalog, a reconsideration of *Symphonie funèbre* seems due. As a partial remedy, the following is an analytical and interpretive discussion of *Symphonie funèbre*. Beginning with a brief overview of its historical context, the essay continues with an analysis of the piece through the lens of Berlioz's compositional output and concludes with a discussion of contemporary approaches to instrumentation and tempo based on Berlioz's first-person accounts of conducting the piece.

CONTEXT

The three-day July Revolution of 1830 led to the overthrow of King Charles X for Louis Philippe I, the last king of France. In 1840, the French government dedicated the Colonne de Juillet, a commemorative column built at Place de la Bastille, to commemorate the ten-year anniversary of the revolution. Under the column, a columbarium was built to reinter 504 victims. Charles de Rémusat, the minister of the interior, commissioned Hector Berlioz to provide music for the dedication ceremony. The result was *Symphonie funèbre*.

Berlioz finished the piece on July 19, 1840 spending less than forty hours on its composition.⁶ The short amount of time to complete the project has led to speculation he used previously composed material from his unfinished, seven-movement choral symphony *Fête musicale funèbre à la mémoire des hommes illustres de la France* for much of the first and third movements.⁷ There is no such speculation about the second movement's origins: it is taken directly from Arnold's recitative and aria in Act III of Berlioz's unpublished opera *Les francs-juges*.⁸

Originally titled *Symphonie militaire*, the piece was Berlioz's second government commission to date, the first being *Grande messe des morts*, op. 5 of 1837. The form and ensemble were left up to the composer for which he chose an older, patriotic style most often associated with the French Revolution and the music of François-Joseph Gossec, Luigi Cherubini, Étienne Méhul, and his teacher Jean-François Le Sueur:

I thought that the simplest plan would be best for such a work, and that a large body of wind instruments would alone be suitable for a symphony which was—at least on the first occasion—to be heard in the open air. I wished in the first place to recall the famous Three Days' conflict amid the mournful accents of a solemn march accompanying the procession; to follow this by a sort of funeral oration, or farewell address to the illustrious dead, while the bodies were being lowered into the tomb; and finally to sing a hymn of praise as an apotheosis, when, after the sealing of the tomb, the attention should be concentrated on the column alone, surmounted by the figure of Liberty, with her wings outstretched to heaven, like the souls of those who had died for her.⁹

Berlioz hired a 200-member band for the occasion and decided to conduct the piece himself. Nervous about the performance, he invited an audience to the last rehearsal held at Salle Vivienne—the “real” performance as he later recalled.¹⁰ The ceremony took place on July 28, 1840, and by all accounts, lived up to Berlioz's low expectations. With Berlioz marching backwards and wearing a military uniform, the band marched for miles in the heat playing the first and third movements six times. According to Berlioz, when they arrived at Place de la Bastille “...scarcely anything could be distinguished even ten paces off.”¹¹ A final performance followed that included the second movement as the tomb was sealed. However, it was so hot that many soldiers left the ceremony before the third movement had even finished.¹²

Despite the poor performance, the public's reaction was overwhelmingly positive. Two more performances took place at Salle Vivienne in August, and Berlioz was engaged for several more performances in subsequent years, particularly of the finale. The work was so popular that, during a tour of Germany in 1843, Berlioz wrote to Auguste Morel, “I would also like something else played other than the *Symphonie funèbre*...”¹³ The patriotic and popular sentiments present in *Symphonie funèbre* were so pronounced that Richard Wagner took note of them in an 1841 letter:

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When I heard his [Berlioz's] symphony for the re-interment of the July victims, I felt sure that every *gamin* in a blue blouse and red cap must understand it to the very bottom; though I should call such understanding more a national than a popular, for it certainly is a long cry from [Adolphe Adam's *opéra comique*] the *Postillon de Lonjumeau* to this July symphony. In truth I am half inclined to rank this composition above all the rest of Berlioz's works; it is noble and great, from the first note to the last—all morbid excitement is kept at bay by a lofty patriotic fervor, which rises from lament to high apotheosis. When I further take into account the service done by Berlioz in his altogether noble treatment of the military "wind," the only instruments at his disposal here, as regards this symphony at least I must withdraw my previous [negative] remarks about the future of Berlioz's compositions—with joy I must acknowledge my conviction that this July symphony will live and kindle, so long as there shall live a nation which calls itself the French.¹⁴

In 1842, Berlioz added optional string and choir parts to the piece using a text provided by Antony Deschamps. He also renamed the second movement "Oraison funèbre" from "Hymne d'adieu" and re-titled the piece *Grande symphonie funèbre et triomphale*.

ANALYSIS

While each of Berlioz's four symphonies represent a solution to the crisis of continuation in the symphonic genre¹⁵ following Beethoven's death, *Symphonie funèbre* is particularly noteworthy. With the Place de la Bastille ceremony as the basis of its connected formal structure, the symphony combines symphonic, operatic, and French Republican styles with a number of allusions and borrowed material from previously composed pieces. While Berlioz's use of these techniques may appear unique at first glance, many of these approaches are used in his other compositions.

Berlioz's four contributions to the symphonic genre all contain a clear cyclic or programmatic element that unifies the composition's structure. *Symphonie fantastique*, op. 14 and *Harold en Italie*, op. 16 both use recurring melodic material to represent characters and themes. *Roméo et Juliette*, op. 17 is based on the Shakespeare play with a libretto by Émile Deschamps, the older brother of Antony Deschamps. In *Symphonie funèbre*, the structure of the 1840 ceremony serves as connective tissue that unifies the composition. The symphony's three movements correspond directly each portion of the ceremony: a funeral procession ("Marche funèbre"), the reinterment of the dead and closing of the tomb ("Oraison funèbre"), and a celebration hymn ("L'apothéose"). As a result, the stylistic intent of each movement is dictated by the ceremony itself which also informs musical decision-making at multiple structural levels including form, melody, and harmony.

Form

Detailed formal diagrams of all three movements can be found in Figures 1, 2, and 3. The sonata terminology found in the diagrams is based on the work on James Hepokoski and Warren Darcy as outlined in *Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata* (New York: Oxford University Press, 2006). A key for the diagrams can be found in Table 1.

Table 1: Key for Formal Diagrams (Figures 1–3).

∩	Elision Between Phrases		
Ant.	Antecedent	Int.	Interruption
BI	Basic Idea	Inter.	Interlude
Cad.	Cadence	Intro.	Introduction
Cons.	Consequent	Motv.	Motive/Motivic
Cont.	Continuation	P	Primary Key Area
Dev.	Development	PAC	Perfect Authentic Cadence
Ens.	Ensemble	Phr.	Phrase
Ext.	Extension	Pizz.	Pizzicato
Fail.	Failed	Rep.	Repetition/Repeated
HC	Half Cadence	S	Secondary Key Area
IAC	Imperfect Authentic Cadence	Sent.	Sentence
		Seq.	Sequence

Hector Berlioz's *Grand Symphonie Funèbre et Triomphale*

Figure 1. Formal analysis of *Symphonie funèbre*, Mvt. 1, “Marche funèbre.”

Exposition (mm. 1–124)

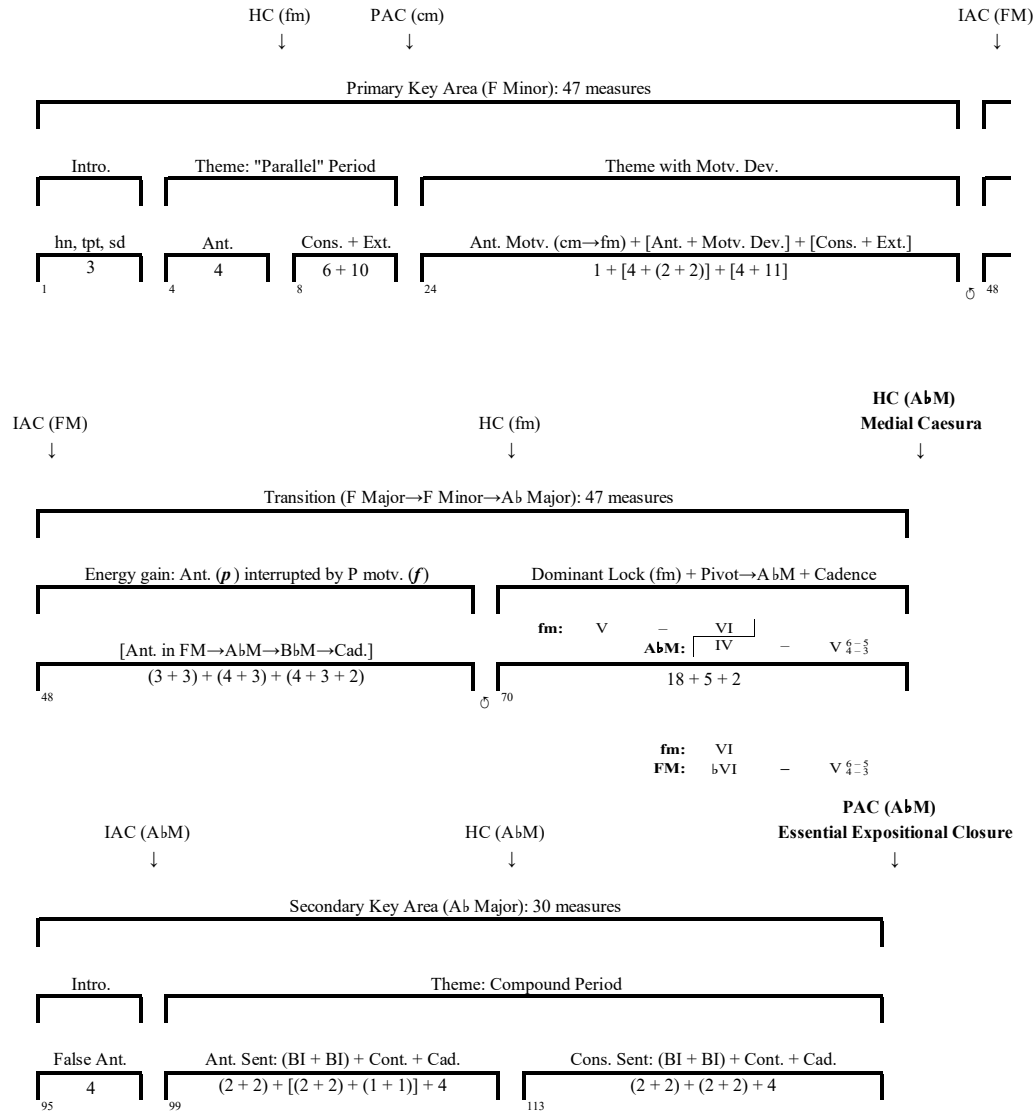
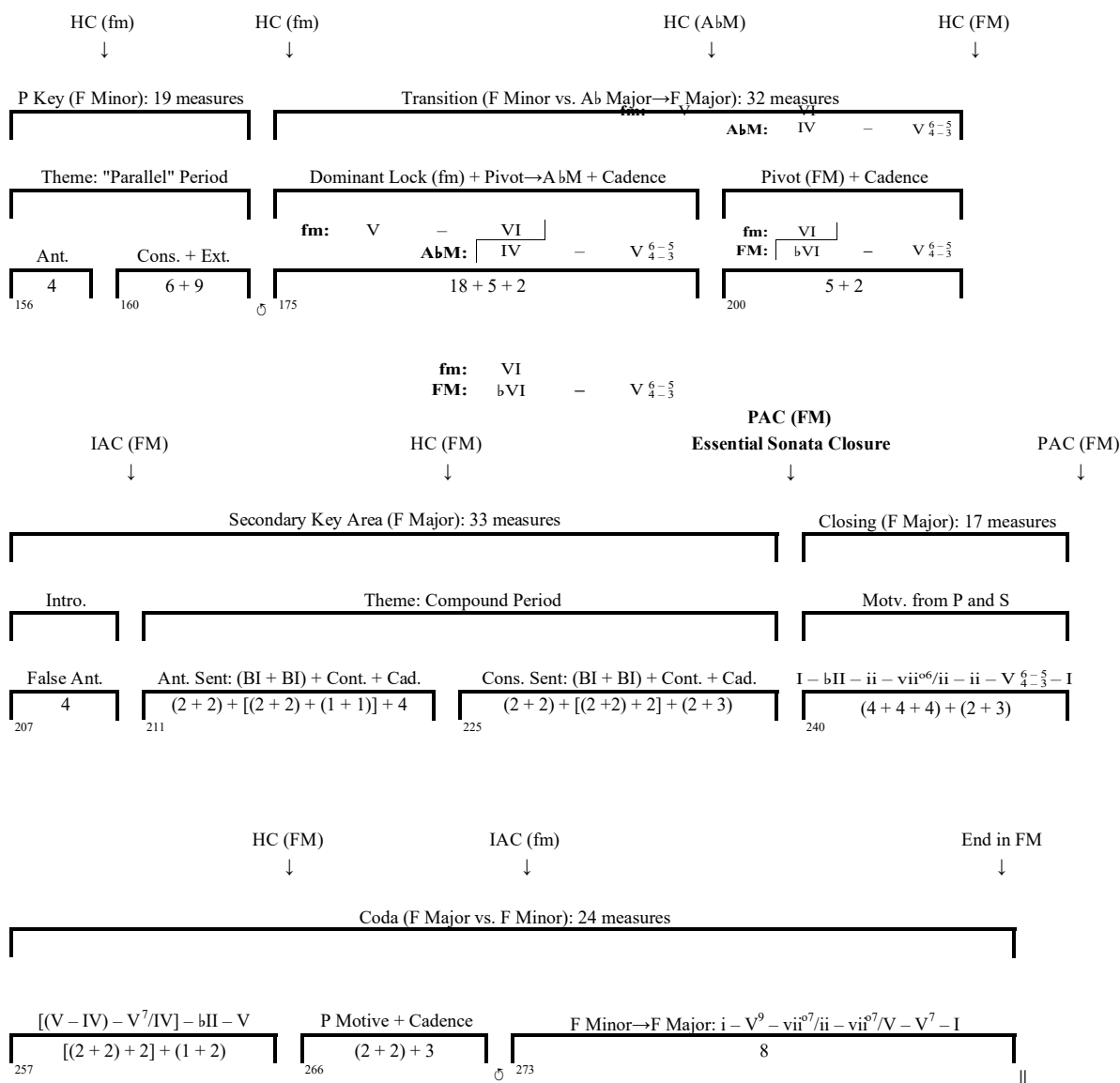
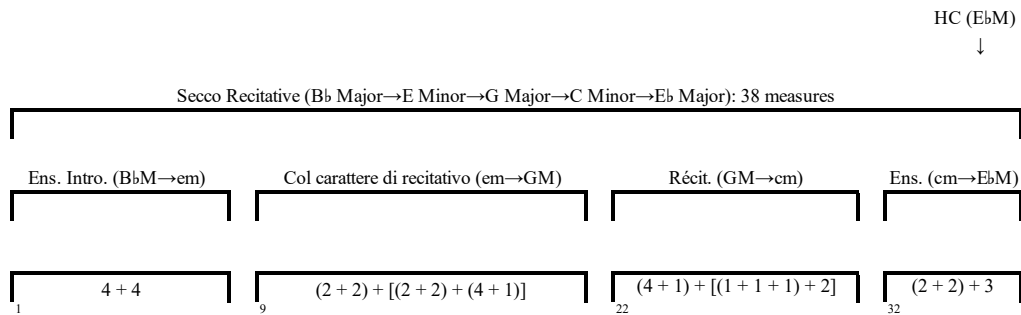


Figure 1 (cont'd). Formal analysis of *Symphonie funèbre*, Mvt. 1, "Marche funèbre."*Recapitulation (mm. 156–239)*

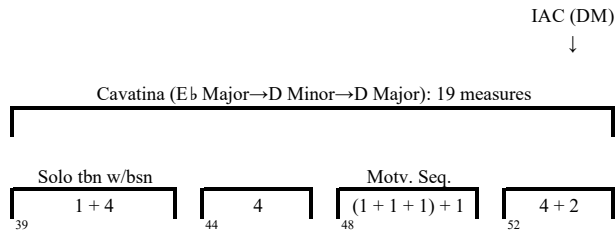
Hector Berlioz's *Grand Symphonie Funèbre et Triomphale*

Figure 2. Formal analysis of *Symphonie funèbre*, Mvt. 2, “Oraison funèbre.”

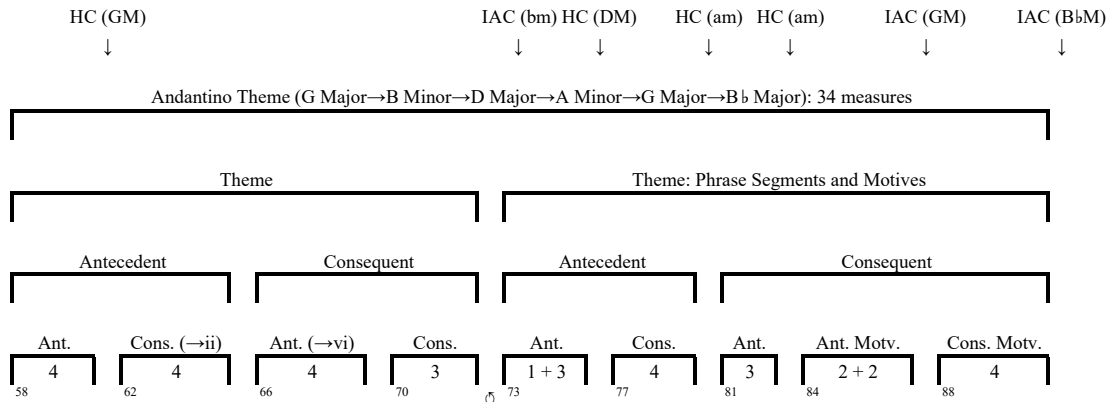
Recitative (mm. 1–38)



Andantino (mm. 39–57)



Andantino poco lento e sostenuto (mm. 58–91)



Coda (mm. 92–108)

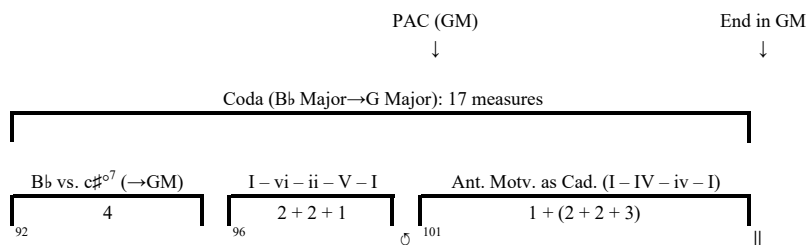
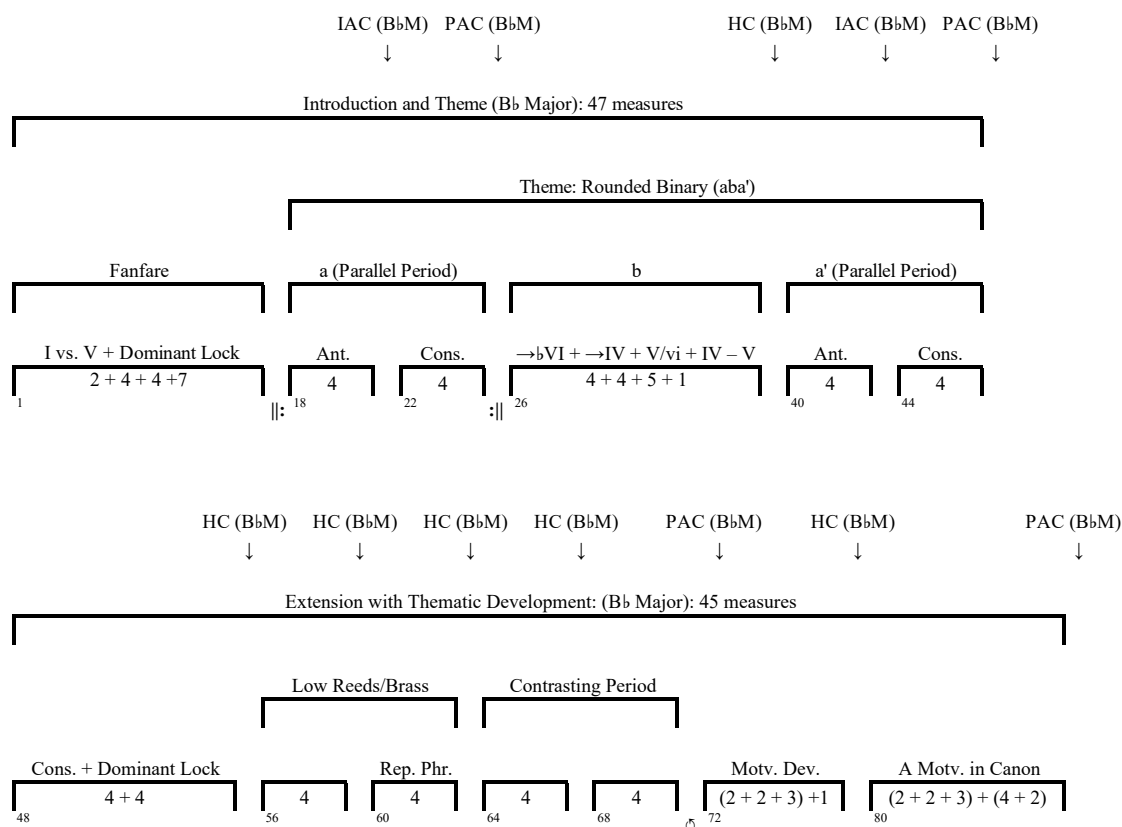
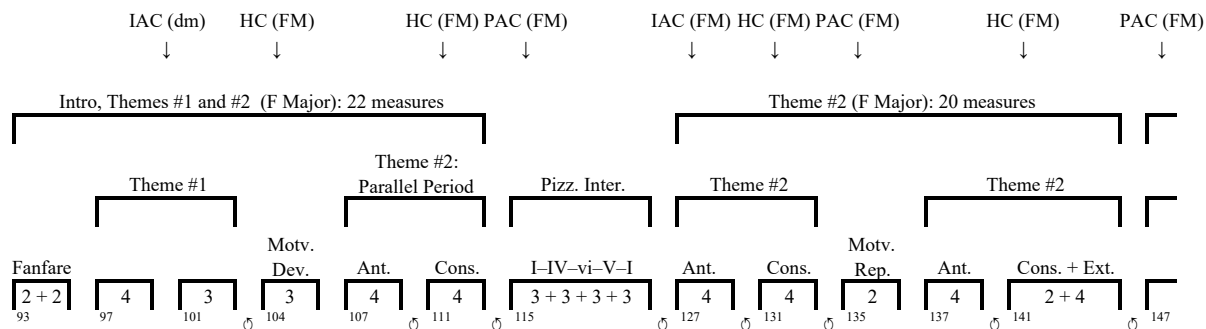
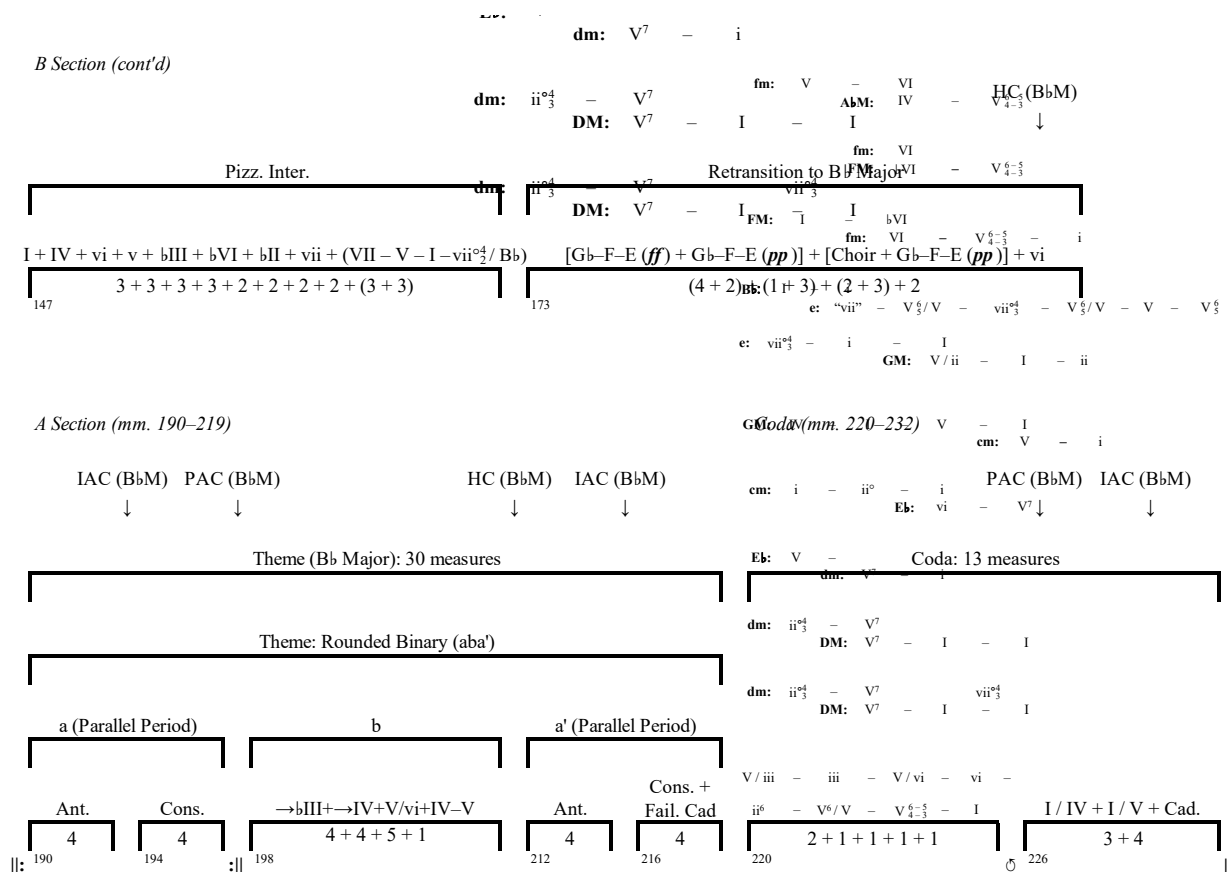


Figure 3. Formal analysis of *Symphonie funèbre*, Mvt. 3, “L’apothéose.”*A Section (mm. 1–92)**B Section (mm. 93–189)*

Hector Berlioz's *Grand Symphonie Funèbre et Triomphale*

Figure 3 (cont'd). Formal analysis of *Symphonie funèbre*, Mvt. 3, “L’apothéose.”



The first movement, “Funeral March,” is composed in a symphonic style and is in the expected sonata form. The primary key area of the march’s exposition begins in F Minor before ending in F Major and contains two presentations of the same thematic material. The secondary key area is in the relative major of A-flat Major. Both the primary key area and transition are significantly shortened in the recapitulation. Otherwise, the recapitulation follows as expected with key transformation from F Minor to F Major. The second movement, “Funeral Prayer,” is in binary form with a recitative followed by an aria. The recitative is tonally unstable with shifting key centers, while the aria is divided into two sections and is more tonally stable with primary emphasis on the keys of D Major and G Major. The third movement, “Apotheosis,” is in ternary form with the A section theme in rounded binary. Of the three movements, the third movement is the most tonally stable and straightforward with both A sections firmly rooted in B-flat Major and the B section in F Major.

Long-term continuity of the symphonic cycle is established through the harmonic relationship between movements (Figure 4). The first movement transforms F Minor into F Major. The second movement begins with a B-flat major chord but quickly introduces other

keys including E-flat Major, D Major, and G Major with the final section oscillating between G Major and B-flat Major. The third movement begins and ends in B-flat Major. Viewed at the macro level, then, the symphony can be seen as a transformation from *v* to *V* through *VI* before ultimately resolving to *I*—in other words, a large-scale *V–I* progression.

Figure 4. Harmonic foundation of three-movement symphonic cycle in *Symphonie funèbre*.

Mvt. 1		Mvt. 2		Mvt. 3
F Minor	F Major	B $\flat$ Major	G Major	B $\flat$ Major
<i>v</i>	$\rightarrow$ <i>V</i>	$\cdots\rightarrow$ <i>I</i>	$\leftrightarrow$ <i>VI</i>	$\cdots\rightarrow$ <i>I</i>

Melody

Like the form, the melodic construction of each movement reflects specific stylistic inspiration while also mirroring approaches found in other compositions by Berlioz. In Figure 5, the theme from the primary key area opens with an antecedent four-bar phrase ending in a half cadence (HC) in F Minor. The consequent phrase opens in a similar manner, clearly hinting at a parallel period, but expected cadences are denied, extending the consequent phrase through motivic development before leading to a perfect authentic cadence (PAC) in the “wrong” key of C Minor.

Figure 5. Primary key area theme in *Symphonie funèbre*, Mvt. 1, mm. 4–23.

4 *f*

Antecedent phrase of "parallel period": HC (fm)

8

Consequent phrase of "parallel period" with denied cadence

12 *p* *cresc. poco a poco*

Denied cadence Phrase extension based on motivic development

16

Phrase extension (cont'd)

20 *f*

Cadence in "wrong" key: PAC (cm)

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This approach of extending phrases through denied cadences and motivic development is not uncommon in Berlioz's symphonic output. In the *idée fixe* from *Symphonie fantastique* (Figure 6), a short opening phrase ending in a half cadence is followed by a consequent phrase clearly setting up a parallel period. However, as in *Symphonie funèbre*, expected cadences are denied in the consequent phrase and motivic development extends the theme.

Figure 6. *Idée fixe* from *Symphonie fantastique*, Mvt. 1, mm. 71–111.

71 *canto espressivo*
p < < < *poco sf* >
 Antecedent phrase of parallel period with descending semitone cadential motive: HC (CM)

80
sf > > > *dolce* >
 Consequent phrase with denied cadence using semitone motive (F – E) Phrase extension

89
cresc. poco a poco *cresc.*
 Phrase extension (cont'd) based on motivic development

98 *animez* *retenu* *a tempo*
sf *dim.* *p* *poco f* > *p*
 Phrase extension to second denied cadence using F – E motive

105 *un peu retenu* *a tempo con fuoco*
sf > *p* < *sf* > < >
 Cadential preparation Cadence using inverted semitone motive: PAC (CM)

By contrast, the second movement's melodic construction is operatic. In Figure 7, the limited pitch range (roughly G3 to D4) and use of repeated pitches give the solo trombone melody a vocal recitative character. While the orchestration of the accompaniment includes several different voices, the texture more resembles *recitativo secco* or *recitativo semplice* with sparse interjections similar to a continuo voice rather than a denser *recitativo accompagnato*.

Figure 7. Trombone recitative in *Symphonie funèbre*, Mvt. 2, mm. 12–27.

The musical score for Figure 7 is presented in two systems. The first system covers measures 12 to 19. The Solo Trombone (Solo Tbn.) part begins at measure 12 with a dynamic of *[mf]*. The Ensemble (Ens.) part enters at measure 13 with a dynamic of *ppp*. Above the Ensemble staff, the instrumentation is listed as fl, ob, ecl, cl. At measure 19, the instrumentation changes to + bcl, bsn, hn, oph, and the dynamic is *mf*. The second system covers measures 20 to 27. The Solo Tbn. part is marked 'Récit.' and *ppp*. The Ensemble part also has a *ppp* dynamic. The instrumentation fl, ob, ecl, cl is indicated above the staff for measures 20-21 and 26-27.

Like the melodic construction of the first movement themes, Berlioz's approach to recitative in *Symphonie funèbre* is not unprecedented. Figure 8, from Act III of *Les Troyens*, includes similar melodic range restrictions and contour with a *recitativo secco*-like approach to accompaniment.

Hector Berlioz's *Grand Symphonie Funèbre et Triomphale*

Figure 8. “Récitatif et air,” no. 19 from Act III of *Les Troyens*, mm. 1–9.

The musical score for Figure 8 is divided into two systems. The first system, labeled 'Récitatif' and 'Moderato', shows Didon singing the lyrics 'Nous a-vons vu fi-nir sept ans — à pei-ne De-puis le jour où, pour trom-'. The piano accompaniment (Ens.) features a prominent bass line with a forte (f) dynamic. The second system, labeled 'Allegro moderato', shows Didon singing 'per la hai-ne Du ty - ran meur-tri-er de mon au-guste é-poux, J'ai dû fuir a-vec vous De Tyr à la rive a-fri - cai-ne.'. The piano accompaniment continues with a similar bass line. The score is marked 'tutti' and 'str (cont'd)'.

The third movement is a hymn of celebration with patriotism and grandeur at the center of its expressive character—all reminiscent of the bands of the French Revolution. Prior to 1840, Berlioz had already been composing in a quasi-French Republican style in *Grande messe des morts* and *Les francs-juges*. While the original version of *Symphonie funèbre* also reflected this style, the inclusion of the choir and patriotic libretto in 1842 made it undeniable. Berlioz confirmed this approach in his description of the movement’s opening fanfare (Figure 9): “What I imagined was a sound like the trump of archangels, simple but noble, ascending radiant and triumphant and grandly resonant, as it announced to earth and heaven the opening of the empyrean gates.”¹⁶

Figure 9. Opening fanfare in *Symphonie funèbre*, Mvt. 3, mm. 1–10.

Brass

[ppp] sf sf

Timpani

mf sf

Snare Drum

p cresc. poco a poco

Br.

3 3 3

Timp.

3 3 3

S.Dr.

A strikingly similar approach to fanfare is found in the *Grande messe des morts* which contains the same patriotic, Republican undertones found in *Symphonie funèbre*. In Figures 10 and 11 from the beginning of the “Tuba mirum,” note the similar use of dotted rhythms, triplets, and stacked entrances.

Figure 10. “Tuba mirum,” from *Grande messe des morts*, mm. 141–45.

Andante maestoso ♩ = 72

141

ff f

Hector Berlioz's *Grand Symphonie Funèbre et Triomphale*

Figure 11. “Tuba mirum,” from *Grande messe des morts*, mm. 155–58.

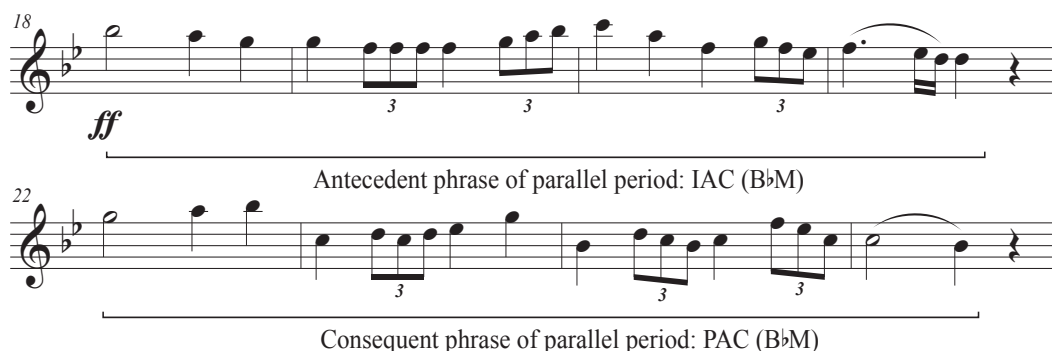


The opening fanfare of the third movement foreshadows the remainder of the movement’s melodic material which is based on similar fanfare-like motives. As compared to the first two movements, phrases in the third movement are much shorter with a more predictable cadential structure, and frequent repetition gives the music a more broadly accessible character. This approach was intentional as Berlioz himself commented to his father: “This time, I wrote so big that even the narrow-minded could read me.”¹⁷

The theme from the A section is constructed as a parallel period made up of two four-bar phrases with complementary cadences that also incorporates fanfare-like triplets and rhythmic repetition within and between phrases (Figure 12). Contrast this regular, predictable structure with the highly irregular and unpredictable structure of the theme from the primary key area of the first movement (Figure 5). As Berlioz’s rival Adolphe Adam noted:

The first movement and the opening of the second movement are an inexplicable mess, but the last movement is really very good: there is no melodic invention, but the rhythm is well-defined, the harmony novel, and the reprises pleasant. In short, there is great progress, because the phrases are organized in groups of four and easily understood.¹⁸

Figure 12. Theme of A section in *Symphonie funèbre*, Mvt. 3, mm. 18–25.



Harmony

As with form and melody, harmonic construction in *Symphonie funèbre* is heavily influenced by stylistic intent. As one might expect, the harmony of the first two movements is more chromatic and extended than the harmony found in the third movement which is more conventional and straightforward. For example, in the first movement, the final arrival in F Major is delayed through a descending fifths progression (Figure 13). The surface-level chromaticism and overall dissonance is striking with ninth chords, secondary leading tone chords, and a pedal tone in the bass voices. The tonality, initially established by the imperfect authentic cadence in F Minor in m. 273, is also transformed to F Major, the goal harmony of the sonata form, over the course of the progression—note the voice leading in the soprano voices in mm. 275–77.

Figure 13. Harmonic transformation from F Minor to F Major through descending fifths progression in *Symphonie funèbre*, Mvt. 1, mm. 273–80.

The musical score for Figure 13 is presented in two systems. The first system, measures 273–276, shows a descending fifths progression in F minor. The chords are F minor (i), C7 (V9), Bb7 (vii°7/ii), and Fb7 (vii°7/V). The dynamics are [p] and ff. The second system, measures 277–280, shows the progression continuing to F major (I). The dynamics are ff and p. Chord symbols are written above the staves, and Roman numerals are written below the staves.

In a similar manner, the final perfect authentic cadence of the third movement is delayed through a descending fifths progression (Figure 14). As in Figure 13, the progression contains some surface-level chromaticism in its use of secondary dominant chords. However, the acceleration of harmonic rhythm towards the B-flat Major cadence and less complex dissonance as compared to Figure 13 seems more appropriate for a movement designed to be broadly accessible.

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Figure 14. Cadential extension through descending fifths progression in *Symphonie funèbre*, Mvt. 3, mm. 219–26.

219

V^7 V/iii iii V/vi vi ii^6 V^6/V $V \frac{6}{4} = \frac{5}{3}$ I

Stylistic parameters also dictate harmonic rhythm and the frequency of key center shifts. As with other aspects of harmonic construction, the third movement is the most reserved. The harmony that accompanies the opening theme of the third movement, for example, uses a slow harmonic rhythm and an overall restrained harmonic language (Figure 15). The third movement also contains the fewest number of key centers: B-flat Major and F Major. By contrast, the opening recitative of the second movement alludes to no less than five different keys in only thirty-eight measures.

Figure 15. Thematic harmony in *Symphonie funèbre*, III. Apothéose, mm. 18–25.

18

I $V \frac{4}{2}$ I^6 V I

IV ii^6 ii $V \frac{8}{4}$ $\frac{7}{5}$ V^7 I

Allusions and Borrowed Material

Perhaps due to the speed at which he composed the piece, Berlioz incorporated a significant number of allusions and borrowed material into *Symphonie funèbre*. The most prominent allusions are references to the music of the French Revolution, including Berlioz's use of a band. Large military bands were a staple of French Revolution ceremonies with repertoire that included patriotic marches, hymns, and songs used for state-sponsored events. As part of the

performance, a choir or the gathered audience often sang a straightforward, accessible text as well. This style of composition is most often associated with the generation of French composers who immediately preceded Berlioz including Gossec, Cherubini, Méhul, and Le Sueur.

The first movement begins with a musical allusion to the Revolution—specifically *Marche lugubre* by François-Joseph Gossec. *Marche lugubre* was premiered in 1790 and, over the next few years, played an increasingly large role in state funerals and ceremonies including a 1791 ceremony in which Voltaire’s ashes were moved to the Panthéon. The piece was so well known that several scholars have even speculated it influenced the “Marcia funebre” from Beethoven’s Symphony no. 3, “Eroica.”¹⁹

Berlioz almost certainly would have been familiar with *Marche lugubre* given its prominent position in French musical culture. Further, given its association with the revolution, ceremonies, and funerals, it seems natural that Berlioz would allude to it within *Symphonie funèbre* which draws on those same themes. Figure 16 shows the first four measures of *Marche lugubre* and Figure 17 shows the first five measures of *Symphonie funèbre*. Note the similarities including the minor key signatures, use of percussion including call-and-response with the winds, and the rhythmic construction of the wind parts.

Figure 16. François-Joseph Gossec, *Marche lugubre*, mm. 1–4.

Largo

The musical score for Figure 16 shows the first four measures of *Marche lugubre*. The top staff, labeled 'Woodwinds and Brass', is in treble and bass clef with a key signature of one flat (B-flat major) and a time signature of 2/2. It contains a series of chords and single notes. The bottom staff, labeled 'Percussion', is in common time (C) and contains a rhythmic pattern with timpani (td) and bass drum (bd) sounds. The tempo is marked 'Largo'.

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Figure 17. *Symphonie funèbre*, Mvt. 1, mm. 1–5.

Moderato un poco lento

Trumpets

Horns

Snare Drums

Soli sans timbres ou voilés

$f > p$ $< mf$ $f > p$ $< mf$ $f > p$ $<$

Self-borrowings are not uncommon in Berlioz's symphonic compositions,²⁰ and *Symphonie funèbre* is no exception. Much of the first and third movements were likely borrowed from the unfinished *Fête musicale funèbre à la mémoire des hommes illustres de la France*, a piece for military band inspired by Napoleon's heroics. After winning the Priz de Rome in 1830, Berlioz spent fifteen months in Italy beginning in the early months of 1831. As he returned home in 1832, Berlioz wrote down in a notebook: "Le retour de l'armée d'Italie—Symphonie militaire en 2 parties: 1°. Adieux des hauts des Alpes aux braves tombés dans les champs d'Italie, 2°. Entrée triomphale des vainqueurs à Paris."²¹ By 1835, this idea had evolved into a larger seven-movement, choral symphony he titled *Fête musicale funèbre à la mémoire des hommes illustres de la France*. However, Berlioz only managed to complete two of the seven movements. Of the two completed movements, there is no extant material remaining with scholars speculating that the music was incorporated into *Le cinq mai*, *Benvenuto Cellini*, *Grande messe des morts*, and the first and third movements of *Symphonie funèbre*.

The second movement is based on Arnold's recitative and aria that opens Act III of *Les francs-juges*, with a solo trombone replacing Arnold, the tenor hero of the opera. Today, only fragments of the original opera still exist.²² In his *Mémoires*, Berlioz indicated he used the best material from the opera in later works, but the only known repurposed material is found in *Symphonie fantastique*, *Symphonie funèbre*, and *Benvenuto Cellini*. While Berlioz preserved much of the original material in "Oraison funèbre," some aspects changed significantly including melodic and accompanimental figures, orchestration, articulation and dynamics, and even the overall structure. A more detailed comparison of "Oraison funèbre" to *Les francs-juges* is warranted but is unfortunately beyond the scope of this article.

In addition to *Fête musical funèbre*, the third movement also contains material previously used in the cantata, *La révolution grecque, scène héroïque* written in 1826. The grand, patriotic, and older style of the cantata is similar to that of *Symphonie funèbre* and *Les francs-juges*. For comparison, Figure 18 is an excerpt from *La révolution grecque* while Figure 19 is the same gesture set in *Symphonie funèbre*.²³ Berlioz also used this same music to set a stanza of additional text found in his arrangement of the third movement for choir and piano in 1848.

Figure 18. Arpeggiated figure in *La révolution grecque*, mm. 215–20.

215

Bsn.

p

rinf. ff

Héros grec

215

sotto voce

Oui,

sotto voce f

Oui,

rinf.

Haute-contre

p

Basse-taille

la voix du Dieu des ar - mé - es

Vln. I

215

mf

Vla.

p

rinf. ff

Vc.

D.B.

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Figure 19. Arpeggiated figure in *Symphonie funèbre*, Mvt. 3, mm. 147–50.

The musical score for Figure 19 shows the arpeggiated figure in *Symphonie funèbre*, Mvt. 3, mm. 147–50. The score is for a full orchestra and includes parts for Piccolo, Flute, Oboe, English Horn, Bassoon, Clarinet, Bassoon, Violoncello, and Double Bass. The key signature is B-flat major (two flats). The score is divided into two systems. The first system covers measures 147 to 150. The second system covers measures 151 to 154. The arpeggiated figure is a continuous eighth-note pattern in the woodwinds and strings, starting in measure 147 and continuing through measure 150. The figure is marked with a piano (*p*) dynamic. The woodwinds (Piccolo, Flute, Oboe, English Horn, Bassoon, Clarinet) play the figure in a higher register, while the strings (Violoncello, Double Bass) play it in a lower register. The figure is marked with a mezzo-forte (*mf*) dynamic in measures 151 and 152. The figure is marked with a piano (*p*) dynamic in measures 153 and 154.

SUGGESTIONS FOR MODERN PERFORMANCES

There are likely a number of factors that have historically contributed to *Symphonie funèbre*'s exclusion from concert programs—many of them practical. The following suggestions regarding instrumentation and tempo address common difficulties faced by contemporary conductors and ensembles and are based on Berlioz's own accounts and experiences with the piece. Following these suggestions is an introduction to a new critical, performing edition that may address additional issues beyond the scope of this article.

Instrumentation

The instrumentation of *Symphonie funèbre* is inextricably linked to the bands of the French Revolution²⁴ and a deliberate attempt on the part of Berlioz to reference those patriotic sentiments. The requested instruments and order in which they are placed on the first page of the partial autograph manuscript clearly indicate French military influence.²⁵ A condensed version is below.

* indicates voices listed as *non obligé* (i.e., optional).

- Piccolo in D-flat
- *Flûte tierce*
- Clarinet in E-flat
- Clarinet in B-flat
- Oboe
- Horn
- Trumpet
- *Cornet à pistons*
- Trombone
- Bass Trombone *
- Ophicleide
- Bass Clarinet
- Bassoon
- Contrabassoon *
- Strings (Violin, Viola, Cello, Double Bass) *
- Choir (Soprano, Tenor, Bass) *
- Snare Drum 1
- Snare Drum 2
- *Pavillon chinois* [Turkish crescent or Jingling Johnny]
- Cymbals
- Bass Drum
- Timpani *
- Tam-Tam

The inclusion of piccolo in D-flat and *flûte tierce* are notable as *Symphonie funèbre* is the only piece in which Berlioz used these instruments and both were more associated with military music than orchestral music.²⁶ The placement of the oboe below the clarinet parts highlights the connection between the *flûte tierce* and E-flat clarinet and the primacy of clarinet parts in French military music. The placement of the bass clarinet, bassoon, and contrabassoon with the ophicleides was also common.²⁷ Finally, note the placement of the timpani at the bottom of the percussion section rather than at the top reflecting its optional status and uncommon usage in 19th-century military music.

The French military influence on *Symphonie funèbre* presents some unique challenges for modern ensembles not the least of which is the size of the group and what is required for performance versus what is optional. The number of performers Berlioz requested in the partial autograph manuscript are below. The required solo trombone used in the second movement is not listed separately likely implying they were intended to be a member of the ensemble.

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Table 2. Berlioz's Requested Instrumentation for *Symphonie funèbre*.

Piccolo in D-flat	4	Trombone 1	4	Cello *	15
<i>Flûte tierce</i>	5	Trombone 2	3	Double Bass *	10
E-flat Clarinet	5	Trombone 3	3	Soprano Voices *	40
B-flat Clarinet 1	14	Bass Trombone *	1	Tenor Voices *	30
B-flat Clarinet 2	12	Ophicleide 1	3	Bass Voices *	30
Oboe	5	Ophicleide 2	3	Snare Drum 1	4
Horn 1/2	4	Bass Clarinet	2	Snare Drum 2	4
Horn 3/4	4	Bassoon	8	<i>Pavillon chinois</i>	1
Horn 5/6	4	Contrabassoon *	1	Cymbals	3
Trumpet 1/2	4	Violin 1 *	20	Bass Drum	1
Trumpet 3/4	4	Violin 2 *	20	Timpani *	1
<i>Cornet à pistons</i> 1/2	4	Viola *	15	Tam-tam	1

The proportions Berlioz requested differ significantly from a 21st-century approach to instrumentation particularly in the heavy emphasis on the clarinet and bassoon sections. However, this proportionality is not uncommon in 19th-century French military music and is incredibly important.²⁸ Given that, the large number of clarinet players (26) Berlioz requested makes sense relative to the number of performers he requested for the remainder of the woodwind section (30). To further complicate matters, Berlioz requested more Clarinet 1 than Clarinet 2 performers even though the Clarinet 2 part contains *divisi*. While it may be easy to assume that having equal or slightly greater numbers on the upper part was a consequence of the initial outdoor performance setting, this relationship between Clarinet 1 and Clarinet 2 parts remained in requests Berlioz made for indoor settings.

Beyond proportionality, the sheer number of performers Berlioz requested can be difficult for modern ensembles. In total, he listed 110 required wind players and percussionists in the manuscript. If the optional contrabassoon, bass trombone, strings (80), and choir (100) are included, the ensemble totals **292 performers**. These numbers are simply not possible in most circumstances. Berlioz himself discovered this as the number of performers he requested for performances of *Symphonie funèbre* varied greatly based on circumstance.

Table 3 shows four different instrumentations for *Symphonie funèbre* Berlioz requested or conducted during his lifetime in 21st-century score order. “M” refers to the partial autograph manuscript score, “BF” a letter from Berlioz to Buy-Fournier in 1844, “H” a letter from Berlioz to George Hainl in 1845, and “C” a letter from Berlioz to Adolphe Catelin in 1851.²⁹ In the letter to Catelin, Berlioz approximated [*à peu près*] the number of winds, strings, and percussion performers at 164 so the numbers found in the table are an estimate—the total of 290 performers is the sum of his given figures. In some cases, Berlioz only gave total numbers for a particular instrument—those are indicated with a > in the table. An asterisk (*) indicates an instrument listed as *non obligé* in the manuscript. Interestingly, and likely for practical reasons, Berlioz did not request bass clarinet, contrabassoon, bass trombone, *pavillon chinois*, or tam-tam for any of these performances.

Table 3. Instrumentations Requested by Berlioz for *Symphonie funèbre*.

	M		BF		H		C
Piccolo	4		4		1		2
Flute	5		4		3		2
Oboe	5		4		4		2
E-flat Clarinet	5		2		1		2
Clarinet 1	14	>	14	>	10		6
Clarinet 2	12						6
Bass Clarinet	2		—		—		—
Bassoon	8		4		4		3
Contrabassoon *	1		—		—		—
Horn 1/2	4						2
Horn 3/4	4	>	8	>	6		2
Horn 5/6	4						2
Trumpet 1/2	4	>	6	>	4		2
Trumpet 3/4	4						2
Cornet 1/2	4		4		2		2
Trombone 1	4						2
Trombone 2	3	>	7	>	6		2
Trombone 3	3						2
Bass Trombone *	1		—		—		—
Ophicleide (C)	3	>	4		2		2
Ophicleide (B-flat)	3				1		2
Timpani	1		2		2		2
Snare Drum 1	4		—	>	4		3
Snare Drum 2	4						3
Turkish Crescent	1		—		—		—
Cymbals	3		1		1		1
Bass Drum	1		1		1		1
Tam-tam	1		—		—		—
Soprano *	40				20 ou 30		46
Tenor *	30	>	130	>	80 ou 70		40
Bass *	30		au moins				40
Violin 1 *	20	>	40	>	34		7
Violin 2 *	20				au moins		7
Viola *	15		15		10		6
Cello *	15		15		11	>	12
Double Bass *	10		12		9		
<i>Total (Winds)</i>	<i>97</i>		<i>61</i>		<i>44</i>		<i>—</i>
<i>Total (Percussion)</i>	<i>15</i>		<i>4</i>		<i>8</i>		<i>—</i>
<i>Total (Choir)</i>	<i>100</i>		<i>~130</i>		<i>~100</i>		<i>126</i>
<i>Total (Strings)</i>	<i>80</i>		<i>82</i>		<i>~64</i>		<i>—</i>
Total (Overall)	292		277		216		~290

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In a 21st-century setting, the instrumentation shown in Table 4 is perhaps the best compromise between modern performance needs and Berlioz's intended proportions. This instrumentation is also similar to the reduced instrumentation Berlioz recommended in his letter to George Hainl. Each instrument group has been reduced by roughly half with ranges listed depending on the performing ensemble's needs and availability. In this scenario, 48–64 wind and percussion performers will be needed. The midpoint of that range, 56, is exactly half of the 112 wind and percussion performers called for in the manuscript.

Table 4. Suggested 21st-Century Wind Instrumentation for *Symphonie funèbre*.

Piccolo	1	Horn 3/4	2	Ophicleide 2	1–2
Flute	2–3	Horn 5/6	2	Timpani	1
Oboe	2–3	Trumpet 1/2	2	Snare Drum 1	1–2
E-flat Clarinet	1	Trumpet 3/4	2	Snare Drum 2	1–2
B-flat Clarinet 1	6–8	Cornet 1/2	2	Turkish Crescent	1
B-flat Clarinet 2	4–6	Trombone 1	2	Pair of Cymbals	1–2
Bass Clarinet	2	Trombone 2	1–2	Bass Drum	1
Bassoon	3–4	Trombone 2	1–2	Tam-tam	1
Contrabassoon *	1	Bass Trombone *	1		
Horn 1/2	2	Ophicleide 1	1–2		

Modern equivalents of all the instruments listed in Table 4 are commonly available with the exception of the ophicleide. For many years, tuba was the accepted substitute for these instruments in orchestral music of the early 19th century and is even listed in the Breitkopf und Härtel edition of *Symphonie funèbre* in place of ophicleide. Unfortunately, the sound of a tuba, even a smaller F tuba, is much bigger than the smaller sound of early 19th-century bass instruments including the ophicleide. As a result, tuba may negatively overshadow and dominate the overall ensemble sound if used in *Symphonie funèbre*. Instead, if ophicleides are unavailable, the parts should be performed by euphoniums which provide a better modern substitute for the ophicleide's sound.³⁰ In particular, this substitution should produce more desirable balance and a more appropriate timbral complement to the rest of Berlioz's orchestration.³¹ However, tuba may be needed to supplement the euphonium parts when the writing is beyond the euphonium's range. These specifics will also inevitably vary depending on the performing edition being used.

While Berlioz requested a string section and choir for each of the four performances listed in Table 3, these sections are optional and not a necessity. All the string parts are doubled in the wind section, and the manuscript calls for seventeen more wind instruments than strings (97 winds vs. 80 strings). Though impactful, the choir only performs for the last five minutes of the piece. Successful performances and recordings have taken place with band alone; band and strings; band and choir; and band, choir, and strings. Just as Berlioz was forced to adapt to circumstance, conductors and ensembles are encouraged to view the piece as adaptable and modular rather than rejecting it because of personnel issues that are likely surmountable.

Tempo

There is only one metronome marking found in the partial autograph manuscript. This is particularly notable since metronome markings are frequently found in Berlioz's music.³² Instead, the manuscript contains several incomplete markings. For example, at the beginning of the first and third movements, the metronome markings read "No. ____ du metr: du Maëlz" with a clear blank space for a metronome marking to be inserted. In the absence of metronome markings, some suggestions for determining tempi follow.

In the first movement, a metronome marking of 72 was added to the manuscript but it is unclear if the addition was written by Berlioz.³³ For comparison, the same tempo marking (Moderato un poco lento) was used by Berlioz in "La fuite en Égypte" which opens Act II of *L'enfance du Christ*. In this case, ♩ = 96 is indicated which seems fast for a funeral march though appropriate for a "flight from Egypt." Assuming the metronome marking found in the manuscript was written or at least inspired by Berlioz, a metronome marking of ♩ = 72–80 seems more appropriate for this movement.

In the second movement, the tempo markings Berlioz used in *Les francs-juges* are instructive and found in Table 5 along with the tempi found in "Oraison funèbre." The first column indicates the measure number in *Les francs-juges* while the second column indicates the corresponding measure number in "Oraison funèbre." Tempo and metronome indications are in the third and fourth columns. In m. 39 of "Oraison funèbre," it is not clear if the metronome marking of ♩ = 69 was written by Berlioz so that metronome marking is listed in brackets.³⁴

Table 5. Metronome Markings in Act III, Scene 1 of *Les francs-juges*.

Measure (FJ)	Measure (OF)	Indication (FJ)	Indication (OF)
1	1	Adagio (♩ = 58)	Adagio non tanto
22	20	Andantino	No marking
54	39	Cavatine; Andante (♩ = 58)	Andantino [♩ = 69]
70	58	Invocation; Andantino poco lento (♩ = 72)	Andantino poco lento e sostenuto (♩ = 72)
177	N/A	Songe	

It is impossible to reconcile Berlioz's specificity of tempo in *Les francs-juges* with his lack of specificity in "Oraison funèbre." Regardless, the given tempi for *Les francs-juges* give a framework for interpreting tempi in "Oraison funèbre." It should be noted that the indicated tempo in m. 58 of "Oraison funèbre" (♩ = 72) can be too slow for many trombonists and a tempo of ♩ = 78–80 is often more common in performance.

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The third movement tempo is marked “Allegro non troppo e pomposo” again with the metronome marking missing. For comparison, Berlioz used the same tempo marking for the finale to Act V of *Les Troyens* (“Impécation”) and indicated a metronome marking of ♩ = 138. The same metronome marking is given for the “Marche Troyenne” that ends Act I but the tempo is marked “Allegro non troppo.” The minor mode version of “Marche Troyenne” found in Act III is similarly marked “Allegro non troppo” but with a metronome marking of ♩ = 126.

Like the first movement, the metronome markings from *Les Troyens* seem too fast for *Symphonie funèbre* particularly if the optional choir is used. Berlioz commented on the importance of tempo in the third movement twice. Specifically, he viewed a Lille performance in 1846 as unsuccessful because of poor tempo³⁵ but attributed the success of the Palais de l’Industrie performance in 1855 to the “moderate tempo.”³⁶

In the 1848 version of the third movement for choir and piano, Berlioz changed the tempo marking to “Allegro non troppo e maestoso” with no metronome mark given. This tempo marking can also be found in his cantata *L’impériale* where the metronome marking is ♩ = 100. This tempo marking seems more appropriate for the character and performance realities of third movement particularly with regards to diction and clarity in the choir.³⁷ A slightly faster tempo of ♩ = 108 might be more appropriate if the optional choir is not used.

Conductors would do well to remember that Berlioz himself was known for his use of fast and steady tempi.³⁸ He also emphasized the importance of fidelity to the composer’s intent through reproduction of a score and the role of inspiration, as opposed to interpretation, in conducting.³⁹ Given Berlioz’s own sentiments regarding interpretation and the role of rubato in French music more broadly, it seems appropriate to carefully consider the use of any *tempo rubato* in *Symphonie funèbre*.

In addition to instrumentation and tempo, there are many other practical issues that performers encounter with *Symphonie funèbre* including extreme ranges in the upper woodwinds, significant doubling in upper woodwind parts, large numbers of horn and trumpet parts, obsolete transpositions and instruments, and more. While the most well-known performing editions are those published by Breitkopf und Härtel and Bärenreiter, those editions do little to help performers beyond correcting errors in notation. To help mitigate these and other barriers to contemporary performance, several other performing editions exist including ones produced by Désiré Dondeyne, Jonathan Elkus, Richard Franko Goldman, Matthew Inkster, David Whitwell, and others. The author has also produced his own critical, performing edition that addresses the issues identified above and more. It also includes *ad libitum* saxophone and tuba parts as well as a double bass part designed for performance with a band.

Conclusion

Grande symphonie funèbre et triomphale, op. 15 is an incredibly important part of band literature and history. Its popularity during Berlioz's lifetime and position in his symphonic catalog also lend it musicological significance not often found in band repertoire. Given that, the infrequency with which it is performed and discussed by bands is striking. Hopefully, the above discussion might suggest that a reexamination is in order.

NOTES

1. *Symphonie funèbre* has been studied at some length by musicologists including Jacques Barzun, Peter Bloom, David Cairns, D. Kern Holoman, and Hugh Macdonald. These sources are included in the bibliography. In band journals, the work of David Whitwell and C.B. Wilson should also be noted—their work is also cited in the bibliography.

2. While CBDNA is making efforts to digitize the CBDNA report, editions of the CBDNA Report before 2021 are not yet searchable through the Institute for Composer Diversity. PDF copies of the Report before 2021 are available at <https://www.cbdna.org/about/the-cbdna-report/>.

One notable contemporary performance is not included in the CBDNA Report. Sir Simon Rattle included *Symphonie funèbre* on an October 20, 2013 Berlin Philharmonic program entitled “Spatial Sounds” that celebrated fifty years of the Philharmonie, the Berlin Philharmonic's iconic performance venue.

3. Hugh Macdonald is particularly dismissive. See Hugh Macdonald, *Berlioz*, The Master Musicians, ed. Stanley Sadie (London: J.M. Dent and Sons, 1982), 121–22.

4. While Wagner does not give the date of the performance he attended, it can be inferred that he was referring to a concert given on February 1, 1842 since the only other performances of the piece to date were from 1840 and on February 15, 1842 after the letter to Schumann had been written.

5. Richard Wagner, *Selected Letters of Richard Wagner*, trans. and ed. Stewart Spencer and Barry Millington (New York: W.W. Norton and Company, 1988), 89.

6. Hector Berlioz, *Correspondance générale*, ed. Pierre Citron, vol. 2, 1832–1842 (Paris: Flammarion, 1975), 650.

7. Berlioz, *Correspondance générale*, vol. 2, 248n1; Hector Berlioz, *Selected Letters of Berlioz*, ed. Hugh Macdonald, trans. Roger Nichols (New York: W.W. Norton and Company, 1997), 126n2, 170n2; Alan E.F. Dickinson, *The Music of Berlioz* (New York: St. Martin's Press, 1973), 101.

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8. Hector Berlioz, *Memoirs of Hector Berlioz*, trans. Rachel and Eleanor Holmes, ed. Ernest Newman (New York: Albert A. Knopf, 1932; repr., New York: Dover Publications, 1966), 40.

9. *Ibid.*, 232.

10. *Ibid.*, 234.

11. *Ibid.*, 234.

12. *Ibid.*, 234.

13. Hector Berlioz, *Correspondance générale*, ed. Pierre Citron, vol. 3, 1842–1850 (Paris: Flammarion, 1978), 71. Translated by Jonathan Caldwell.

14. Richard Wagner, *Richard Wagner's Prose Works*, trans. William Ashton Ellis, vol. 8, *Posthumous, Etc.* (London: Kegan Paul, Trench, Trübner, 1899), 135–36, <https://www.google.com/books/edition/Posthumous/y0cIAQAAMAAJ/>.

15. For more on the 19th-century crisis of continuation in the symphonic tradition, see James Hepokoski, “Beethoven Reception: The Symphonic Tradition” in *The Cambridge History of Nineteenth-Century Music*, ed. Jim Samson, vol. 1 (Cambridge: Cambridge University Press, 2001), 424–59, JSTOR.

16. Berlioz, *Memoirs of Hector Berlioz*, 233–34.

17. Hector Berlioz, *Correspondance générale*, vol. 2, 649. Translated by Jonathan Caldwell.

18. Adolphe Adam, *Lettres sur la musique française (1836–1850)* (Paris: Revue de Paris, août–octobre, 1903; repr., Genève: Minkoff, 1996), 77–78. Translated by Jonathan Caldwell.

19. Some scholars draw a somewhat direct connection between *Marche lugubre* and “Marcia funebre.” Others are more circumspect in their assessment but still note the influence of French revolutionary music. See Peter Anthony Bloom, “Critical Reaction to Beethoven in France: François-Joseph Fétis,” *Revue belge de Musicologie / Belgisch Tijdschrift voor Muziekwetenschap* 26/27 (1972–73): 68, JSTOR; John Clubbe, *Beethoven: The Relentless Revolutionary* (New York: W.W. Norton, 2019), 207–9; Lewis Lockwood, *Beethoven's Symphonies: An Artistic Vision* (New York: W.W. Norton, 2015), 242n30; Claude V. Palisca, “French Revolutionary Models for Beethoven's *Eroica* Funeral March” in *Music and Context: Essays for John M. Ward*, ed. Ann Dhu Shapiro (Cambridge, MA: Harvard University, 1985) 198–209; Michael Spitzer, “Beethoven as Sentimentalist,” in *Beethoven Studies* 4, ed. Keith Chapin and David Wyn Jones, Cambridge Composer Studies (Cambridge: Cambridge University Press, 2020), 88.

20. Michel Austin and Monir Tayeb, “Berlioz and his music: self-borrowings,” The Hector Berlioz Website, accessed May 21, 2024, <http://www.hberlioz.com/Works/borrowings.htm/>.

21. Quoted in David Cairns, *The Making of an Artist: 1803–1832*, vol. 1 of *Berlioz* (Berkeley: University of California Press: 2000), 545.

22. The extant fragments of *Les francs-juges* can be found in Hector Berlioz, *Incomplete Operas*, ed. Ric Graebner and Paul Banks, Hector Berlioz: New Edition of the Complete Works, vol. 4 (Kassel, Germany: Bärenreiter Verlag, 2002).

23. The full section that contains this material in *La révolution grecque* is mm. 211–40. This music appears twice in *Symphonie funèbre* in mm. 115–26 and 147–66.

24. Jean-Georges Kastner, *Manuel général de musique militaire à l’usage des armées françaises* (Paris: Firmin Didot Frères, 1848), 168–69, <https://gallica.bnf.fr/ark:/12148/btv1b9064148c/>.

Kastner’s mention of Fétis in the preceding citation is a reference to a specific article. See François-Joseph Fétis, “Recherches historiques: Sur la musique militaire,” *Revue musicale* 7, no. 42 (November 16, 1833): 329–33, <https://books.google.com/books?id=qvh62MEkOYIC>.

25. Berlioz’s partial autograph manuscript is housed in the Bibliothèque nationale de France. The manuscript was written out by Berlioz and his copyist Rocquemont. Indicating it as a partial autograph, Berlioz wrote on the first page, “Puisque tu veux savoir, mon cher [Joseph] d’Ortigue, ce qui est de mon écriture dans cette partition, va d’ici à la septième page, je me suis reposé là. À toi. H. Berlioz.” The material is undated but likely from 1842 based on the inclusion of the choral parts. Available online at <https://gallica.bnf.fr/ark:/12148/btv1b55006370s/>.

26. Berlioz highlighted the military associations with these two instruments in his orchestration treatise. See Hector Berlioz, *A Treatise on Modern Instrumentation and Orchestration*, trans. Mary Cowden Clarke, rev. ed., ed. Joseph Bennett (London: Novello, Ewers, and Company, 1882), 125, <https://imslp.org/wiki/Special:ReverseLookup/62638/>.

27. Jean-Georges Kastner, *Cours d’instrumentation* (Paris: A. Meissonnier et J.L. Heugel, [1840]), 52, 118–21, <https://gallica.bnf.fr/ark:/12148/bpt6k1175162b/>.

28. For representative examples of the instrumentation historically used in French military bands, see Jean-Georges Kastner, *Manuel général de musique militaire à l’usage des armées françaises* (Paris: Firmin Didot Frères, 1848), 168–74, 188, <https://gallica.bnf.fr/ark:/12148/btv1b9064148c/>; Jean-Georges Kastner, *Cours d’instrumentation* (Paris: A. Meissonnier et J.L. Heugel, [1840]), 52, 118–21, <https://gallica.bnf.fr/ark:/12148/bpt6k1175162b/>; and Albert Lavignac and Lionel de la Laurencie, *Orchestration, Musique liturgique des différents cultes*, Encyclopédie de la musique et dictionnaire du conservatoire, pt. 2, vol. 4 (Paris: Librairie

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Delagrave, 1929), 2145–48, <https://gallica.bnf.fr/ark:/12148/bpt6k123726m/>. *Manuel général de musique militaire* and *Orchestration, Music liturgique* also provide excellent perspective on the larger history of the military band in France and other countries.

29. Letter from Berlioz to Buy-Fournier, [n.d.], <https://gallica.bnf.fr/ark:/12148/btv1b53025497x/>. Julien Tiersot dates Buy-Fournier's instrumentation list from October 1844. See Hector Berlioz, *Le musicien errant: 1842–1852*, ed. Julien Tiersot (Paris: Calmann-Lévy, 1919), 86–88, <https://gallica.bnf.fr/ark:/12148/bpt6k9762348n/>.

Letter from Berlioz to George Hainl (1845). See Hector Berlioz, *Correspondance générale*, ed. Pierre Citron, vol. 3, *1842–1850* (Paris: Flammarion, 1978), 256–58.

Letter from Berlioz to Adolphe Catelin (1851). See Hector Berlioz, *Correspondance générale*, ed. Pierre Citron, vol. 4, *1851–1855* (Paris: Flammarion, 1983), 18–19.

30. For those interested in using ophicleides in performances, modern B-flat ophicleides are manufactured by Wessex Tubas (<http://www.wessex-tubas.com/>) and Jérôme Wiss (<http://www.jeromewiss.com/>).

31. Richard R. Demy, “The Automatic Compensating Euphonium as the Ideal Choice for Performing Music Composed Originally for Ophicleide” (DMA diss., University of North Texas, 2014), <https://digital.library.unt.edu/ark:/67531/metadc700086/>.

32. For a more in-depth discussion of Berlioz's tempi and metronome markings, including in *Symphonie funèbre*, see Hugh Macdonald, “Berlioz and the metronome,” in *Berlioz Studies*, ed. Peter Bloom (Cambridge: Cambridge University Press, 1992), 17–36.

33. Hector Berlioz, *Grande symphonie funèbre et triomphale*, ed. Hugh Macdonald, 3rd ed., Hector Berlioz: New Edition of the Complete Works, vol. 19 (Kassel, Germany: Bärenreiter Verlag, 2011), xi.

Macdonald describes this indication of “72” as does David Whitwell in “Some Thoughts on the Berlioz ‘Symphony for Band’” (<http://whitwellbooks.com/wp-content/uploads/2010/12/Berlioz.pdf>). This indication is not visible on the scanned version available online through the Bibliothèque nationale de France.

34. Hugh Macdonald, “Berlioz and the metronome,” in *Berlioz Studies*, ed. Peter Bloom (Cambridge: Cambridge University Press, 1992), 27.

35. Hector Berlioz, *Les grotesques de la musique* (Paris: Librairie nouvelle, 1859), 297, <https://gallica.bnf.fr/ark:/12148/bpt6k1030683/>.

36. Berlioz, *Memoirs of Hector Berlioz*, 493.

37. Barzun arrives at a similar conclusion. Following a lengthy discussion, he suggests a metronome marking between 80 and 100 beats per minute. See Jacques Barzun, *Berlioz and the Romantic Century*, vol. 1, 3rd ed. (New York: Columbia University Press, 1969), 354–55n12.

38. José A. Bowen, “Mendelssohn, Berlioz, and Wagner as Conductors: The Origins of the Ideal of ‘Fidelity to the Composer,’” *Performance Practice Review* 6, no. 1 (1993), 84n26, <http://scholarship.claremont.edu/ppr/vol6/iss1/4/>.

39. Bowen, “Mendelssohn, Berlioz, and Wagner as Conductors,” 82–83.

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PROGRAMMING TRENDS OF THE BIG TEN WIND BAND PROGRAMS FROM 2017-2022

Isaac Brinberg

Since the early twentieth century, there has been a movement to advance the quality of original music for winds, led by professional wind band organizations and collegiate band directors.¹ This movement reflects a shift in concert programming from “entertainment” concerts featuring transcriptions to concerts of original works for wind band, exemplified by the Goldman Band in 1942² and the first Eastman Wind Ensemble concert in 1952.³ Decades of commissioning by individuals, academic institutions and ensembles, and professional band organizations fostered growth of original works for winds by distinguished composers.

This rapid increase in original music for winds resulted in efforts to identify a core repertoire of significant composers and pieces for the medium.⁴ These efforts led to two research streams in wind band repertoire studies to identify a core repertoire: 1) frequency of performance, or 2) evaluation of artistic merit. Researchers in both streams have identified and updated a core wind band repertoire. These many studies, however, have not considered different ensemble levels and the breadth of composers within demographic sub-groups. First, since band programs at the secondary and collegiate level often are comprised of two or more ensembles of different ability levels, comparing ensemble levels can reveal programming trends among different areas of the repertoire. Second, studying the frequency of composers within demographic sub-groups can illustrate how ensembles are increasing diversity in their programming, that is, if ensembles are finding a pluralism of voices or if a handful of voices are more prominent than others.

To address these gaps in the literature, this study examines ensemble level and diversity trends in programming through performance frequency of composers and compositions. Specifically, this study focuses analysis on trends of diverse repertoire programming among different ensemble levels of Big Ten institution band programs and goes beyond recent research on diversity in wind band repertoire by analyzing composer frequency for demographic sub-groups to better understand how ensembles have sought to expand their concert programming.

Literature Review

Identifying Core Repertoire by Frequency of Composition and Composer

As mentioned previously, decades of research in programming practices has revealed trends in the development of a core wind band repertoire, which provides a reference for current programming trends. In the frequency stream of repertoire research, Holvik (1970) surveyed the College Band Director National Association (CBDNA) membership to collect program data

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from 1961–1966, constructing a list of compositions performed ten or more times by survey respondents. According to Holvik, the most frequently programmed compositions included Symphony No. 3 by Vittorio Giannini (62), *Stars and Stripes Forever* by John Philip Sousa (60), *Variants on a Medieval Tune* by Norman Dello Joio (58), *Chester Overture* by William Schuman (52), and *La fiesta mexicana* by H. Owen Reed (48). Fiese (1987) studied a broader spectrum of collegiate ensembles for frequency of programming by composer and found that Sousa (1562), Grainger (1261), Gustav Holst (1025), Alfred Reed (1022), and Ralph Vaughan Williams (639) were the five most frequently programmed.

Kish (2005) used self-reported concert program data from the 1998–2002 CBDNA reports, finding the top five most frequently programmed works were *First Suite in E-flat* by Holst (80), *Blue Shades* by Frank Ticheli (75), *Second Suite in F* by Gustav Holst (71), *Lincolnshire Posy* by Percy Grainger (69) and *Chester Overture* by William Schuman (61). Most recently, Folk and colleagues (2023) studied first level ensembles of the Power Five athletic conferences (Big Ten, PAC-12, Big 12, ACC and SEC), finding the five most frequently performed works included Grainger's *Lincolnshire Posy* (51), Hindemith's *Symphony in B-flat* (41), Holst's *First Suite in E-flat* (40), Grainger's *Colonial Song* (37), and Strauss's *Serenade in E-flat, Op. 7* (35). According to Folk (2023), the most frequently performed composers included Percy Grainger (251), Leonard Bernstein (180), Frank Ticheli (149), John Mackey (145), and David Maslanka (138). The studies reviewed here describe over three decades of programming, and there are similar compositions and composers that appear as most frequently programmed by collegiate ensembles, signifying a core repertoire for collegiate bands.

Identifying Core Repertoire by Ensemble Level

Many repertoire studies examined programming trends of first level collegiate ensembles at an institution. While some institutions may only have one collegiate band, many institutions have multiple bands in their program that are distinguished by factors including number of members, instrumentation, and ability. As part of a comprehensive collegiate band program, second and third level ensembles perform repertoire that aligns with their ability, which most often contains technically and musically easier individual parts. Some composers have written repertoire accessible for multiple ensemble levels or have written pieces at a variety of ability levels, while other composers have written repertoire only accessible to the highest ability level performers. Powell (2009), Wiltshire et al. (2010), Paul (2012), Wacker and Silvey (2014), and Folk and colleagues (2023) each focus on first level ensembles at the collected institutions, which studies one level of wind band repertoire. Earlier studies such as Holvik (1970) and Kish (2005) do not classify ensemble level.

For this study, I classified ensemble levels based on the hierarchy at their respective institution rather than attempt to classify each ensemble based on perceived ability or performance quality and create an equivalence of ensembles across institutions. This classification approach assumes the conductor evaluates what repertoire is appropriate for their ensemble based on the members' performance and ability level, leading to the first level, second

level, and third level nomenclature used in this study. This nomenclature facilitates comparative analysis of programming trends across institutions, avoiding subjective categorization based on perceived ability or performance quality of each ensemble.

There is little research that examines programming practices of second and third level collegiate ensembles that perform a variety of repertoire across ability levels and represent a significant proportion of the undergraduate wind band experience. Hedgecoth (2012) surveyed ten second band collegiate directors on their ensembles' role in the collegiate program, such as participating in commissions, the educational and musical goals for the ensemble, and group identity and attitude as a second ensemble in the program. Additionally, Hedgecoth (2012) collected concert programs from these ensembles from Fall 2008 through Spring 2012 and examined the frequency of programming by composition and composer. The five most programmed works were *Fanfare and Allegro* by Clifton Williams (6), *Symphony No. 2* by Frank Ticheli (6), *Variants on a Medieval Tune* by Norman Dello Joio (6), *Cathedrals* by Kathryn Salfelder (5), and *Children's March* by Percy Grainger (5). The five most programmed composers were Frank Ticheli (31), Percy Grainger (24), John Mackey (16), John Philip Sousa (16), and Norman Dello Joio (12).

These findings illustrate some differences in frequency of composer and compositions with studies that focus on only first level ensembles, such as Frank Ticheli being programmed more frequently than Percy Grainger, and the inclusion of Kathryn Salfelder, a white woman composer. The findings also focus on pieces that are not the most difficult in the repertoire, often works accessible to both advanced high school and second/third level collegiate ensembles. This evidence indicates that different ensemble levels focus on different repertoire in their programming practice, highlighting the importance of studying multiple ensemble levels to understand programming trends from multiple perspectives.

Identifying Core Repertoire by Composer Background

Recent trends in programming have pushed for greater inclusivity of diverse voices in addition to the historically most frequently programmed composers. There is a growing body of research to identify core repertoire by considering features of the composer's background, including their gender and race. For example, Jensen (2014) and Collins (2020) explored in-service educator's perceptions and knowledge of wind band works by women composers and identified areas to improve educator's knowledge and awareness of women composers and their band compositions. Baker and Biggers (2018) examined a state-prescribed music list and found that only 35 (0.03%) wind band pieces out of 1,167 on the list were by women-identifying composers. Russo (2021) extended Baker and Biggers (2018) to analyze 12 state-prescribed music lists in six regions, discovering there were only 359 (0.02%) compositions by 50 different women-identifying composers out of 15,381 pieces.

This research on composer background has increased consideration of women wind band composers. For example, Creasap (1996) developed a catalogue of women composers and

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their works for the wind band and Howley (2020) collected interviews from women Australian composers and conductors to illustrate challenges for participation and representation of works by women composers. Boeckman (2019) also highlights challenges and prejudices women composers face in getting compositions programmed, such as implicit bias against women composers and tokenization. Finally, Peters (2016) studied women participation in music at a major university, illustrating unevenness in women representation in certain instruments and areas of study, including composition.

Recent research also addresses the racial background of the composer and the increased need for representation of diverse composers. Robbins (2019) addressed in-service educator's attitudes towards teaching music written by diverse composers, finding that college students who wanted to teach music by composers of diverse backgrounds felt underprepared in the necessary resources and pedagogy. Bowman (2020) analyzed the racial and gender diversity of repertoire for 100 recent episodes of a wind band radio show; out of 737 evaluated compositions, only 9% were by women and 15% were by diverse composers. Moss (2000) created a catalogue of twentieth-century wind band works composed by Black composers to help increase access to compositions by composers of diverse backgrounds. Gandhi (2020) analyzed seven Canadian music festival lists by examining the percentage of White Women, BIPOC (Black, Indigenous, or People of Color) and BIPOC Women representation across 1,247 works and found only 60 works were by a women composer, 54 by a BIPOC composer, and 12 by a BIPOC Women composer.

Folk and colleagues (2023) examined programming data for frequency of composer and composition by diverse composer and academic year-to-year proportion of white men composers to diverse composers and found an increasing proportion of diverse composers for each (Power Five) conference. According to Folk and colleagues (2023), all conferences had fewer than 10% of performed works by underrepresented composers in the 2015–2016 academic year, increasing to above 10% in the 2018–2019 year and growing to between 22.6% and 42.6% by the 2020–2022 academic years, illustrating that among first level ensembles of the power five conferences, there was significant increase in proportion of programming that included underrepresented composers.⁵

In addition to increased research on diversity in wind band repertoire, numerous organizations have called for more diversity in core repertoire, including: The Midwest Clinic by creating a composer diversity requirement for conference programming (2020)⁶; CBDNA's revised mission statement (2021)⁷ and the National Association for Music Education most recent strategic plan (2022).⁸ Resources and initiatives for educators to learn about compositions by historically underrepresented composers have also increased, such as And We Were Heard, the Institute for Composer Diversity, ColourFULL Music, and American Indian Band Music. Understanding the composer's background, particularly race and gender, is emerging as central to analyzing wind literature and identifying a core repertoire.

Recent studies have revealed trends in programming wind band composers of diverse backgrounds, yet more data is needed on specific trends within demographic sub-groups and

varying ensemble levels to capture a more comprehensive image of current trends. In this study, I examine trends in the proportion of diverse composer and composition programming at each ensemble level and frequency of composer programming by demographic sub-groups, providing a detailed illustration of the impact of recent efforts in diversifying band repertoire.

Purpose of Study

A fundamental question is whether these calls for change in the core repertoire are reflected in the concert programming. The current study focuses on efforts in one area of collegiate band programs: those represented by the Big Ten (B1G) Conference prior to conference expansion with University of California-Los Angeles, University of Southern California, University of Washington, and University of Oregon. This study examines programming trends in the B1G conference since that was the first conference studied in research focusing on conference-specific data. Powell (2009) collected concert programs for the first level wind ensembles in the B1G between Fall 2002 and Spring 2006 and analyzed the programs by frequency of composer, composition, number of world premieres, and proportion of original wind band compositions to transcriptions programmed by those ensembles. Follow-up studies included Wiltshire et al. (2010) for the Atlantic Coast Conference; Paul (2012) for the Pac-12 and Big 12 Conferences; and Wacker and Silvey (2014) for the Southeastern Conference.

The purpose of the current study is: (1) to re-assess the baseline established by Powell (2009), (2) to expand the data collected to include multiple ensemble levels, (3) to examine diverse programming trends across all ensemble levels studied, and (4) to identify the breadth of composer voices within demographic sub-groups. Majority non-music major ensembles, such as campus bands, were excluded from the scope of this study to focus on the curricular music-major experience, as established by Powell (2009). I collected the following information from all 14 B1G institutions from Fall 2017 to Spring 2022 for each work listed on a concert program: (1) semester and year, (2) state and institution name, (3) ensemble name and ranking in program, (4) composition title, (5) composer name, and (6) demographic data for the composer. The data were aggregated during analysis to protect individual institution privacy. The following research questions provide scope for the data analysis.

- What programming trends have emerged for first, second, and third ensembles in the B1G from Fall 2017 to Spring 2022?
- How do programming trends for first level ensembles, in terms of frequency of composers and compositions, compare to earlier findings (Powell 2009)?
- What are programming trends for diverse composer at each ensemble level?
- What is the breadth of individual composer frequency in each sub-group?

Method

Data collection began in late Spring 2021 by contacting faculty, staff, and graduate students at all B1G institutions for Fall 2017 to Spring 2021 programming data for the defined range of ensembles (majority music major, auditioned). When possible, publicly available online resources such as institution event pages and band program Facebook accounts were used to gather program data. Information from institution members was used to corroborate and complete online source materials, when available. At the end of AY 2021–2, follow-up correspondences were sent to institutions and online resources consulted to complete data collection. Out of 14 institutions represented in the study, 11 have complete data and three have partial data, with estimated range of 60–95% of possible data collected for the three partial institutions based on estimated number of performances (2 concerts for second and third level ensembles, 3 concerts for first level ensembles) and average number of pieces per concert (four to five) per semester.

Data entry began in Spring 2021 and continued through Summer 2022, with completion in July 2022. Each entry included the semester and year of performance, name of ensemble performing the work, ensemble ability “level” as established by that institution’s band program (first, second, and third ensemble), work name, and composer name. The Institute of Composer Diversity (ICD) provided their database and index for coding composer’s racial and gender backgrounds, creating the framework for categorizing the composers. The ICD uses the following methodology to evaluate a composer’s racial and gender background:

- 1) Collecting biographical information through scholarly sources, both traditional (e.g., *New Grove Dictionary of Music and Musicians*) and contemporary (e.g., *The Horizon Leans Forward*), along with existing research and databases from similar organizations.
- 2) Where gender identity is unclear, we reference pronouns used in official biographies and historical analyses.
- 3) For ambiguous racial/ethnic identity, we examine language used to describe the composer, both coded and explicit.
- 4) Where historical status is uncertain, we estimate by applying standard lifespans to known birth years.
- 5) Any composers that remained unidentified after these steps are marked as “Unknown” (<0.01% of composers).⁹

If a composer was not already included in the index provided by ICD, I added the composer to the index using the methodology outlined by ICD. Table 1 contains the demographic

subgroups were included in the study. Data cleaning occurred between July and August 2022. Any partial performance of a work, such as one or selected movements of a larger work, were listed as the complete title for continuity. Composition titles and composer names were sorted and modified to match, with works listed in their original language.

White Man Composer
White Woman Composer
Man Composer of Color (details unknown)
Black Man Composer of Color
Hispanic Man Composer of Color
East Asian Man Composer of Color
South Asian Man Composer of Color
Middle Eastern Man Composer of Color
Pacific Islander Man Composer of Color
First Nations / American Indian Man Composer of Color
Intersectional Man Composer of Color
Woman Composer of Color (details unknown)
Black Woman Composer of Color
Hispanic Woman Composer of Color
East Asian Woman Composer of Color
South Asian Woman Composer of Color
Middle Eastern Woman Composer of Color
Pacific Islander Woman Composer of Color
First Nations / American Indian Woman Composer of Color
Intersectional Woman Composer of Color

Table 1: *Institute of Composer Diversity Composer Code Index*

Results

There were 3,209 composition entries in the data set, encompassing 1,693 unique compositions across 743 different composers. There were 1,429 works performed by first level ensembles, 1,271 works performed by second level ensembles, and 511 performed by third level ensembles. The large difference between number of works performed by the first and second ensembles compared to the third ensembles is due to only a handful of B1G institutions having a third level auditioned ensemble that fits the criteria of study. In addition, first level ensembles often perform a few more concerts every year than second level ensembles. In examining diversity of composers, data were aggregated by ensemble level and examined via the abovementioned coding index, as illustrated by the following tables and graph.

Frequency of Composers, Compositions by Ensemble Level

Like previous conference-focused studies, analysis included examining the most frequently performed composers and compositions. For first and second level ensembles, I included compositions performed ten or more times (Powell 2009). As mentioned previously, there are fewer third level ensemble pieces included in Table 5 due to fewer of this ensemble level in the B1G, so seven or more performances was used for inclusion in the study. In addition to frequency measurement, I include the percentage that each composer comprises of total repertoire performed at each ensemble level.

As seen in Table 2 for first level ensembles, Percy Grainger (47) was performed most frequently, followed by Johann Sebastian Bach (33), Leonard Bernstein (32), Paul Hindemith (32), and David Maslanka (24) as the top five. Among second level ensembles, there are similar names in the top five, including Percy Grainger (38) and Leonard Bernstein (33), in addition to Frank Ticheli (27), Gustav Holst (23), and Vincent Persichetti (23). Third level ensembles also have Percy Grainger (19) as the most frequently performed composer and Frank Ticheli (17) in the top five, along with John Mackey (15), Julie Giroux (13), and Aaron Perrine (9). Percy Grainger is the only composer to appear in each top five list and is the most frequently performed for all ensemble levels.

First Level Ensemble			Second Level Ensemble			Third Level Ensemble		
<i>Composer</i>	<i>N</i>	<i>%</i>	<i>Composer</i>	<i>N</i>	<i>%</i>	<i>Composer</i>	<i>N</i>	<i>%</i>
Percy Grainger	47	10	Percy Grainger	38	9	Percy Grainger	19	14
J.S. Bach	33	7	Leonard Bernstein	33	8	Frank Ticheli	17	13
Leonard Bernstein	32	6	Frank Ticheli	27	6	John Mackey	15	11
Paul Hindemith	32	6	Gustav Holst	23	5	Julie Giroux	13	10
David Maslanka	24	5	Vincent Persichetti	23	5	Aaron Perrine	9	7
Richard Strauss	21	4	Omar Thomas	23	5	Alfred Reed	9	7
Igor Stravinsky	21	4	Steven Bryant	22	5	John Philip Sousa	9	7
Aaron Copland	20	4	Julie Giroux	21	5	Eric Whitacre	8	6
Gustav Holst	20	4	John Mackey	21	5	Kevin Day	7	5
John Mackey	20	4	Ralph Vaughan Williams	19	4	Shelley Hanson	7	5
Frank Ticheli	19	4	David Maslanka	18	4	Jennifer Jolley	7	5
Karel Husa	18	4	John Philip Sousa	18	4	Michael Markowski	7	5
John Philip Sousa	18	4	Gordon Jacob	13	3	Omar Thomas	7	5
Michael Daugherty	17	3	J.S. Bach	12	3			
Omar Thomas	16	3	Jennifer Jolley	12	3			
W.A. Mozart	15	3	Ron Nelson	12	3			
Steven Bryant	14	3	Alfred Reed	12	3			
Joel Puckett	14	3	Malcom Arnold	11	3			
Viet Cuong	13	3	Michael Markowski	11	3			
Paul Dooley	13	3	Dmitri Shostakovich	11	3			
Giovanni Gabrieli	13	3	Norman Dello Joio	10	2			
William Bolcom	11	2	Giovanni Gabrieli	10	2			
Jennifer Higdon	11	2	Aaron Perrine	10	2			
Ralph Vaughan Williams	11	2	William Schuman	10	2			
Darius Milhaud	10	2	Eric Whitacre	10	2			
Ron Nelson	10	2						

Table 2: *Most Frequently Performed Composers by Ensemble in Current Study*

When comparing first level ensembles to Powell's (2009) findings, there are many similarities between the two lists, as illustrated below in Table 3. There are seven composers common on both top ten most frequently performed—Grainger, Bach, Bernstein, Hindemith, Strauss, Copland, and Holst. The three composers that do not overlap notably includes several diverse composers such as Omar Thomas, Viet Cuong, and Jennifer Higdon, who are now frequently played in the B1G. One notable change the between Powell (2009) and the current study is that compositions by Percy Grainger, while still the most performed composer by first level ensembles, comprised 15% of total repertoire performed by first level ensembles (over double a percentage

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to the next composer, Frank Ticheli). In the current study, Grainger dropped by 6% to 9% of total repertoire by first level ensembles.

First Level Ensembles (Current Study 2023)			First Level Ensembles (Powell 2009)		
<i>Composer</i>	<i>N</i>	<i>%</i>	<i>Composer</i>	<i>N</i>	<i>%</i>
Percy Grainger	47	9	Percy Grainger	60	15
J.S. Bach	33	7	Frank Ticheli	27	7
Leonard Bernstein	32	6	Leonard Bernstein	25	6
Paul Hindemith	32	6	Gustav Holst	21	5
David Maslanka	24	5	Richard Strauss	19	5
Richard Strauss	21	4	Paul Hindemith	18	4
Igor Stravinsky	21	4	W.A. Mozart	18	4
Aaron Copland	20	4	Aaron Copland	17	4
Gustav Holst	20	4	J.S. Bach	15	4
John Mackey	20	4	Michael Daugherty	15	4
Frank Ticheli	19	4	John Philip Sousa	15	4
Karel Husa	18	4	Donald Grantham	14	3
John Philip Sousa	18	4	Karel Husa	14	3
Michael Daugherty	17	3	Igor Stravinsky	14	3
Omar Thomas	16	3	Dmitri Shostakovich	13	3
W.A. Mozart	15	3	Ralph Vaughan Williams	13	3
Steven Bryant	14	3	William Schuman	12	3
Joel Puckett	14	3	Ingolf Dahl	11	3
Viet Cuong	13	3	David Maslanka	11	3
Paul Dooley	13	3	Ron Nelson	11	3
Giovanni Gabrieli	13	3	Vincent Persichetti	11	3
William Bolcom	11	2	George Gershwin	10	2
Jennifer Higdon	11	2	Charles Ives	10	2
Ralph Vaughan Williams	11	2	Morten Lauridsen	10	2
Darius Milhaud	10	2			
Ron Nelson	10	2			
Dmitri Shostakovich	10	2			

Table 3: *Comparison of Most Frequently Performed Composers by First Level Ensembles*

A comparison of most frequently programmed works by first level ensembles from the current study to Powell (2009) and their comparative percentages are included in Table 4. A discrepancy in composition performance frequency between studies is due to the expansion of the B1G conference from 11 to 14 institutions since Powell's (2009) study, resulting in the frequency count varying slightly with the increased number of institutions. I included thirty-seven

of Powell's (2009) findings, not his entire list of composition frequency for first level ensembles, to provide direct comparison to the current study. I found that repertoire such as *Lincolnshire Posy*, *Symphony in B-flat*, *Dionysiaques*, and *Music for Prague 1968* were in the top ten for both Powell (2009) and the current study, while other works such as *Hammersmith* and *Colonial Song* both had significantly fewer performances from Powell (2009) to the current study. Some significant pieces that received 5 or fewer performances in the current study include the *Sinfonietta*, *Emblems*, and *Winds of Nagual*.

Likewise, there were specific works that were premiered during or shortly before the years studied by Powell (2009) that did not meet the threshold of the current study, such as Ticheli's *Symphony No. 2*, Daugherty's *Bells for Stokowski*, Corigliano's wind ensemble setting of *Gazebo Dances*, and Grantham's *J.S. Dances*, which reflects the tendency for consortia premieres and additional performances within the BIG conference shortly after the world premiere. This trend is present in the current study, with pieces such as Omar Thomas' *Come Sunday*, Oscar Navarro's *Downey Overture*, Roshanne Etezady's *Anahita*, Viet Cuong's *Bull's-Eye*, and Carlos Simon's *Sweet Chariot* all composed during or shortly before the current study, with many BIG institutions part of the consortia and premieres of these works. These are all works by historically underrepresented composers, illustrating greater diversity among the most performed works by first level ensembles than compared with Powell (2009).

In addition to examining the frequency of composer, I examined frequency and percentage of composition for each ensemble level, as illustrated by Table 5. For first and second level ensembles, any composition performed fewer than five times was excluded from the table. For third ensembles, any composition performed fewer than three times was not included in the table. For first level ensembles, the most frequently performed works include Grainger's *Lincolnshire Posy* (13), Hindemith's *Symphony in B-flat* (13), Strauss' *Serenade in E-flat, Op. 7* (10), Thomas' *Come Sunday* (7), and Schmitt's *Dionysiaques, Op. 62* (7). For second level ensembles, these works include Holst's *First Suite in E-flat* (11), Bernstein's *Overture to Candide* (9), Holst's *Second Suite in F* (8), Thomas' *Shenandoah* (8), and Higdon's *Fanfare Ritmico* (7). With third level ensembles, these works include Thomas' *Shenandoah* (6), Shelley Hanson's *Albanian Dance* (5), Howard Hanson's *Chorale and Alleluia* (5), Eric Whitacre's *October* (5), and Grainger's *Irish Tune from County Derry* (4).

In examining programming across all three ensemble levels, there are more shared works between first and second ensemble levels than between second and third ensemble levels. Certain works appear at varying frequency between first and second level ensembles, while other works appear only on each ensemble levels' respective list. This highlights the importance of ability-based programming, where conductors program works accessible to their ensembles' performance capabilities. Some works are accessible to multiple ensemble levels and are important to an ensembles' educational experience, such as the *First Suite in E-flat* and *Lincolnshire Posy*. Likewise, some of the most difficult repertoire can only be performed by the best first level ensembles, while works appearing on the third level ensemble list would not be musically relevant or fitting for first or second level ensembles. Notably, more works by diverse composers are on

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the second and third level ensemble lists and are performed at a higher proportion than first level ensembles. This foreshadows additional results that second and third level ensembles program a greater proportion of diverse composers than first level ensembles.

First Level Ensembles (Current Study 2023)			First Level Ensembles (Powell 2009)		
<i>Composition</i>	<i>N</i>	<i>%</i>	<i>Composition</i>	<i>N</i>	<i>%</i>
Lincolnshire Posy	13	5	Colonial Song	10	4
Symphony in B-flat	13	5	Lincolnshire Posy	10	4
Serenade in E-flat	10	4	Hammersmith	10	4
Come Sunday	7	3	O Magnum Mysterium	10	4
Dionysiaques	7	3	Profanation from Symphony No. 1	9	4
First Suite in E-flat	7	3	Sinfonietta	8	3
Music for Prague 1968	7	3	Music for Prague 1968	8	3
Rocky Point Holiday	7	3	Symphony in B-flat	7	3
An Outdoor Overture	6	2	Dionysiaques	7	3
Downey Overture	6	2	Festive Overture	7	3
Festive Overture	6	2	Symphony No. 2 (Ticheli)	7	3
Fugue a la Gigue	6	2	Overture to Candide	6	3
Hammersmith	6	2	Gazebo Dances	6	3
Masks and Machines	6	2	Bells for Stokowski	6	3
O Magnum Mysterium	6	2	Canzon quarti toni	6	3
Octet for Wind Instruments	6	2	Molly on the Shore	6	3
Petite Symphonie	6	2	Serenade No. 10 in B-flat Major	6	3
Profanation from Symphony No. 1	6	2	Variations on “Mein junges Leben hat ein End”	6	3
Serenade No. 10 in B-flat Major	6	2	Toccata Marziale	6	3
Suite Française (Milhaud)	6	2	Emblems	5	2
Symphony No. 4 (Maslanka)	6	2	The Circus Bee	5	2
The Good Soldier Schweik Suite	6	2	J.S. Dances	5	2
Anahita	5	2	Le Bal de Béatrice d’Este	5	2
Bull’s-Eye	5	2	Symphonic Metamorphosis	5	2
Colonial Song	5	2	First Suite in E-Flat	5	2
Drei Lustige Märsche	5	2	Second Suite in F	5	2
Fantasia and Fugue in C Minor	5	2	The Good Soldier Schweik Suite	5	2
Integrales	5	2	Passacaglia (Homages on B-A-C-H)	5	2
Kleine Dreigroschenmusik	5	2	Rocky Point Holiday	5	2

Le Bal de Béatrice d'Este	5	2	New England Triptych	5	2
Mother Goose Suite	5	2	Wiener Philharmoniker Fanfare	5	2
Selections from "The Danserye" (Dunnigan)	5	2	Selections from "The Danserye" (Dunnigan)	5	2
Serenade in D Minor (Dvorak)	5	2	Blue Shades	5	2
Sweet Chariot	5	2	Commando March	4	2
Symphonic Dances from West Side Story	5	2	Divertissement (Bernard)	4	2
Symphonies of Wind Instruments	5	2	Mass No. 2 in E Minor (Bruckner)	4	2
Torn Canvases	5	2	Winds of Nagual	4	2

Table 4: *Comparison of Most Frequently Performed Compositions by First Level Ensembles*

First Level Ensemble			Second Level Ensemble			Third Level Ensemble		
<i>Composition</i>	<i>N</i>	<i>%</i>	<i>Composition</i>	<i>N</i>	<i>%</i>	<i>Composition</i>	<i>N</i>	<i>%</i>
Lincolnshire Posy	13	5	First Suite in E-flat	11	6	Shenandoah (Thomas)	6	10
Symphony in B-flat	13	5	Overture to Candide	9	5	Albanian Dance	5	8
Serenade in E-flat	10	4	Second Suite in F	8	4	Chorale and Alleluia	5	8
Come Sunday	7	3	Shenandoah (Thomas)	8	4	October	5	8
Dionysiaques	7	3	Fanfare Ritmico	7	4	Irish Tune from County Derry	4	6
First Suite in E-flat	7	3	Of Our New Day Begun	7	4	Prelude, Siciliano and Rondo	4	6
Music for Prague 1968	7	3	Pageant	7	4	Tight Squeeze	4	6
Rocky Point Holiday	7	3	Slava!	7	4	A Glimpse of the Eternal	3	5
An Outdoor Overture	6	2	Symphony No. 6 for Band	7	4	A Mother of a Revolution!	3	5
Downey Overture	6	2	Commando March	6	3	Festal Scenes	3	5
Festive Overture	6	2	Folk Song Suite	6	3	Lichtweg/Lightway	3	5
Fugue a la Gigue	6	2	George Washington Bridge	6	3	Mother Earth	3	5
Hammersmith	6	2	Lincolnshire Posy	6	3	Scarecrow Overture	3	5
Masks and Machines	6	2	Selections from "The Danserye" (Dunnigan)	6	3	Shadow Rituals	3	5
O Magnum Mysterium	6	2	Suite Française (Milhaud)	6	3	Shepherd's Hey	3	5
Octet for Wind Instruments	6	2	A Mother of a Revolution!	5	3	Unquiet Hours	3	5
Petite Symphonie	6	2	Canzona	5	3			
Profanation from Symphony No. 1	6	2	Carmina Burana	5	3			

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Serenade No. 10 in B-flat Major	6	2	Children's March	5	3			
Suite Française (Milhaud)	6	2	Colonial Song	5	3			
Symphony No. 4 (Maslanka)	6	2	Fanfare from "La Péri"	5	3			
The Good Soldier Schweik Suite	6	2	Festive Overture	5	3			
Anahita	5	2	Four Scottish Dances	5	3			
Bull's-Eye	5	2	In This Broad Earth	5	3			
Colonial Song	5	2	Old Wine in New Bottles	5	3			
Drei Lustige Märsche	5	2	One Life Beautiful	5	3			
Fantasia and Fugue in C Minor	5	2	Shoutout	5	3			
Intégrales	5	2	Sketches on a Tudor Psalm	5	3			
Kleine Dreigroschenmusik	5	2	Strange Humors	5	3			
Le Bal de Béatrice d'Este	5	2	Toccata Marziale	5	3			
Mother Goose Suite	5	2						
Selections from "The Danserye" (Dunnigan)	5	2						
Serenade in D Minor (Dvorak)	5	2						
Sweet Chariot	5	2						
Symphonic Dances from West Side Story	5	2						
Symphonies of Wind Instruments	5	2						

Table 5: *Most Frequently Performed Compositions by Ensemble Level in Current Study*

Results of Programming by Sub-Groups

I next examined the programming of diverse composers at each ensemble level, results seen in Table 6. For first level ensembles, White Men composers comprised 82% of programming, while White Women composers comprised 6%, Black Men 5%, East Asian Men 3%, Latino Men 2%, and East Asian Women 1%. Black Women, Intersectional Women, Intersectional Men, and South Asian Men all comprised less than 1% of total programming for first level ensembles. Second and third level ensembles had similar breakdowns: White Men composers comprised 76% of programming, with 10% White Women composers, 5% Black Men composers, and 4% East Asian Men composers. Not every demographic sub-group was represented at all ensemble levels, and the total percentage reflects a small rounding error in reporting the percentages.

First Level Ensemble			Second Level Ensemble			Third Level Ensemble		
<i>Composer</i>	<i>N</i>	<i>%</i>	<i>Composer</i>	<i>N</i>	<i>%</i>	<i>Composer</i>	<i>N</i>	<i>%</i>
White Men	1,170	82	White Men	966	76	White Men	389	76
White Women	86	6	White Women	121	10	White Women	49	10
Black Men	69	5	Black Men	74	6	Black Men	26	5
East Asian Men	42	3	East Asian Men	51	4	East Asian Men	21	4
Hispanic Men	31	2	Hispanic Men	31	2	East Asian Women	11	2
East Asian Women	20	1	East Asian Women	17	1	Hispanic Men	10	2
Black Women	6	0.4	Black Women	7	0.5	Black Women	2	0.4
Intersectional Women	2	0.1	Middle Eastern Women	2	0.2	Intersectional Men	1	0.2
Intersectional Men	1	0.07	Hispanic Women	1	0.07	First Nations Men	1	0.2
South Asian Men	1	0.07	South Asian Men	1	0.07			
Total	1,428	99.64	Total	1,271	99.84	Total	510	99.8

Table 6: *Number of Performances and Composer Diversity Percentage by Ensemble Level*

Analysis of composer diversity by ensemble level and academic year illustrates a shift in the percentage of programming of each demographic sub-group. For all ensemble levels, the percentage of White Men composers in overall programming decreased on an academic year-to-year basis. White Women and Black Men composers had the largest percentage increase on an academic year-to-year basis for each ensemble level. As shown in Figure 1, the overall proportion of diverse composers programmed over an academic year-to-year basis increased for each ensemble level. In AY 2017–2018, each ensemble level had between 5%–12% diverse composers, while in AY 2021–2022, the percentage grew to 27% for first level ensembles, below 38% for second level ensembles, and approaching 46% for third level ensembles.

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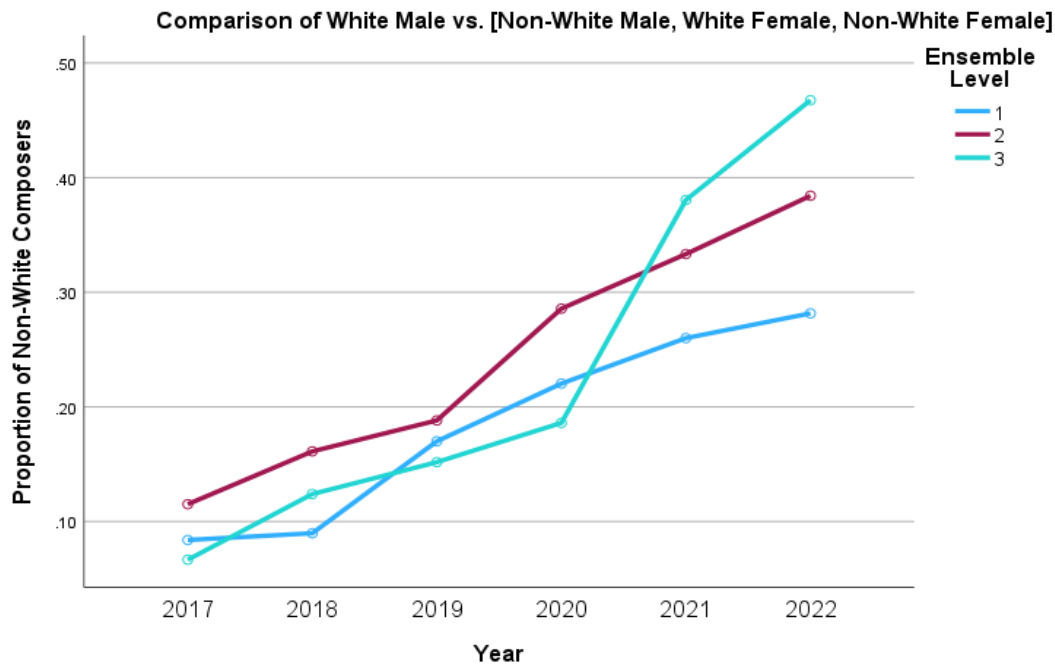


Figure 1: *Proportion of Diverse Composers by Academic Year and Ensemble Level*

I then examined the most frequently performed composers by different diversity sub-groups for all three ensemble levels. Some sub-groups had one or two composers that were programmed two or three times more than the next composer in the demographic group, while other groups had a more even distribution of frequency. A few sub-groups only had one, two, or four composers included, specifically South Asian and Middle Eastern Men composers or Black and Latina Women composers, respectively. I focus my discussion on White Women, Black Men, and East Asian Women composers since those illustrate a trend for one or two voices to receive significantly more performance than other composers in that group.

For White Women composers, Julie Giroux received 41 performances, over twice as many as the next composer, Jennifer Higdon (19). Other frequently performed White Women composers include Roshanne Etezady (17), Shelley Hanson (14), Kathryn Salfelder (12), and Nicole Piunno (11). For Black Men composers, Omar Thomas received 46 performances, with Kevin Day receiving 23. Additional Black Men composers that were included in B1G programs include Carlos Simon (12), Anthony Barfield (11), and Katahj Copley (11). Jennifer Jolley (23) was the most frequently performed East Asian Women composer, a demographic sub-group that includes Chen Yi (8), Shuying Li (6), Cait Nishimura (4), and Xi Wang (4). Refer to Appendix I for a list of top ten composers by performance frequency in each sub-group.

Discussion

Frequency of Composers and Compositions by Ensemble Level

Repertoire performed in the B1G conference during AY 2017–2022 illustrates increased diversity of programming by diverse composers at all ensemble levels studied. Third level ensembles had the largest increase, followed closely by second level ensembles, and first level ensembles had the smallest increase. As noted, the larger difference of number of compositions between second and third level ensembles stems from the structure of B1G band programs—all programs have at least two ensembles that match the criteria of this study, while only a few institutions have a third ensemble that was included in this study. First level ensembles tend to perform more concerts over the course of the academic year than second ensemble, which most likely explains the higher number of entries.

The most frequently performed works and composers for first level ensembles follow trends established by previous repertoire studies, with works such as *Lincolnshire Posy*, *Symphony in B-flat*, *First Suite in E-flat*, and *Dionysiaques* among the top ten most frequently performed works. The increased frequency of *Music for Prague 1968* may be due to its 50th anniversary during the period studied. A notable new addition was *Come Sunday*, which had three B1G institutions on its consortium and was premiered during the period studied. The most frequently performed composers for first level ensembles also aligns with prior studies, with composers such as Grainger, Bach, Bernstein, Hindemith, and Maslanka appearing on multiple studies' top ten frequently performed composers. Out of 27 composers with ten or more performances for first level ensembles, only three are diverse including Omar Thomas, Viet Cuong, and Jennifer Higdon. Though diversity of programming is increasing for first level ensembles, core repertoire is still predominately white Men composers.

For second ensembles, their most frequent composers closely align with first ensembles, with Holst, Persichetti, and Thomas as new additions towards the top of the list, whose works such as both *First Suite in E-flat* and *Second Suite in F*, *Shenandoah* (arr. Thomas), *Of Our New Day Begun*, *Pageant* and *Symphony No. 6 for Band* were among the most frequently programmed by second level ensembles. Like first level ensembles, there are only three diverse composers who received more than ten performances out of 25 in that category, including Omar Thomas, Julie Giroux, and Jennifer Jolley.

For third ensembles, which comprise a significantly smaller portion of data with fewer contributing ensembles, the threshold for frequency was lowered to seven for composers and three for compositions. In addition to composers already highlighted in first and second ensembles, third ensembles' frequently programmed composers include Mackey, Giroux, Perrine, Reed, and Sousa. Out of 13 composers with seven or more performances, five are diverse including Julie Giroux, Kevin Day, Jennifer Jolley, Shelley Hanson, and Omar Thomas. For 17 works receiving three or more performances, six were composed by diverse composers, including the

top two most frequently performed in this category such as *Shenandoah* (arr. Thomas) and *Albanian Dance* by Shelley Hanson. The greater proportion of diverse composers for third level ensembles compared to first and second level ensembles may be due to several factors: the relative newness of repertoire for this ensemble level, the conductors' background for these ensemble levels, and the increased number of diverse composers writing music accessible to this level.

Programming of Diverse Composers by Ensemble Levels

Second and third level ensembles tend to have slightly more diverse programs than first ensembles. Both second and third ensembles averaged 24% diverse composers, while first level ensembles averaged 18% during this period. For all three ensembles, there were similar percentages by demographic sub-groups, as illustrated in Table 6. No ensemble had every demographic sub-group in the index included over the period studied. However, each ensemble level programmed White Women, Black Men, and East Asian Men composers over the period studied as the three top diverse composer backgrounds.

For all three ensembles, the percentage of White Men composers declined significantly over time. This illustrates a marked shift in diverse programming, with second and third level ensembles having the most change. Both White Women and Black Men composers had the largest increases in percentage of programming on an academic year-to-year basis for all three ensemble levels. Certain demographic groups, such as Hispanic Men and Women, East Asian Men and Women, and Black Women composers, all had either modest increases or were net neutral in percentage of programming over the period studied.

Examination of frequency of composer by diversity sub-group illustrates there is often one composer that receives significantly more performances than others in certain demographics. The disparity in frequency of performance between the leading composer and others could be attributed to a few factors. Some composers, such as Julie Giroux or Jennifer Jolley, have significantly more repertoire for wind bands at a variety of difficulty levels than their peers. For Black Men composers, part of the disparity may stem from the relative newness of younger composers, such as Kevin Day, Katahj Copley, and Quinn Mason. Omar Thomas has fewer works for wind band than Kevin Day or Katahj Copley, so those composers may likely increase in performance frequency over time.

However, data reveal a trend in relying on only a few composers in certain demographic sub-groups for most programming—a relative lack of breadth within underrepresented demographics. There are other diversity sub-groups that only had one or few composers represented in total, indicating areas for further commissioning and exploration of repertoire. Programming for all three ensemble levels became increasingly diverse from AY 2017–2022, yet within diverse demographics, there are certain composers that received significantly more performances than their peers while certain demographic sub-groups have little if no representation in programming included in the study.

Extramusical Influences on Programming Trends

There were several extramusical events during AY 2017–2022 that influenced certain programming trends, including the COVID-19 pandemic, passing of David Maslanka, and centenary celebration of Leonard Bernstein’s birth. Institutional response to the COVID-19 pandemic varied widely, with some institutions suspending ensemble music while others allowed for different sized chamber ensembles via social distancing and spacing guidelines. Folk and colleagues (2023) acknowledged the impact of the COVID-19 pandemic on programming, with a shifted emphasis on chamber works during AY 2020–2021 to follow health guidelines.¹⁰ For example, Strauss’ *Serenade in E-flat* received one performance in 2017, four in 2021 during the height of social distancing guidelines, and one in 2022 when ensembles began returning to normal. This suggests that chamber works comprised a greater proportion of programming during AY 2020–2021 than in other academic years in the study.

Significant composer events influenced programming trends in this study. The passing of David Maslanka in 2017 resulted in a momentary spike of programming of his works across all ensemble levels, as illustrated by Table 7. 2017–2019 had the three highest years of Maslanka works programmed, with 2017 as the peak. After a sharp decline in 2020 due to the COVID-19 pandemic, there was a post-pandemic resurgence. The centennial of Leonard Bernstein’s birth in 2018 resulted in a significant programming boom followed by a sharp decline and stabilization of frequency, as shown in Table 7. These composer-centered events, along with the COVID-19 pandemic, influenced certain programming trends during AY 2017–2022.

Composer	2017	2018	2019	2020	2021	2022
David Maslanka	12	9	10	4	8	5
Leonard Bernstein	12	38	5	3	6	4

Table 7: *Frequency of Maslanka and Bernstein Programming Across All Ensembles by Year*

Further Study

Additional studies are needed to track programming trends across conferences, school size, and geographic region to assess current trends in diverse programming as more diverse composers are receiving commissions, premieres, and repeated performances of their works. Expanding the scope of study to include campus/community bands would enrich the current data on programming trends. Examining diverse programming trends at the secondary school level, by studying programming at concert band festivals (e.g. University Interscholastic League, Indiana State School Music Association), could reveal broader impact of the consistent calls for increasing diverse programming from national music education organizations.

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Two programming variables not addressed in this study include piece duration and placement on concert programs. These variables can illustrate the impact of a piece on its concert program through its ratio to overall program duration and if it occupies placement that historically serves as a focal point for the program, for example a major symphonic work or concerto. Future studies that use piece length and placement on the program as the primary metric would be beneficial to understand the evolving nature of the wind band repertoire.

In addition to continued study of programming practice, there needs to be further study, commissioning, and performance of voices that are not as regularly programmed by collegiate band programs. As illustrated in the current study, certain composer sub-groups have significantly less representation in programming across multiple ensemble levels than other sub-groups, indicating a need to seek out and create new works from those voices. Reliance on a single voice or certain sub-groups for diversifying the repertoire only partially achieves the goals of this movement. The current study hopefully reveals opportunities for furthering the goals of diversity, inclusion, and belonging in the wind band repertoire.

Conclusion

Wind band repertoire is simultaneously changing and remaining static. There is a marked increase in programming by diverse composers at different ensemble levels, with second and third level ensembles illustrating a faster increase than first level ensembles. However, the most frequently performed composers and compositions at the first ensemble level have remained consistent between Powell (2009) and the current study, with notable exceptions involving works such as *Bull's-Eye* by Viet Cuong, *Sweet Chariot* by Carlos Simon, and *Anahita* by Roshanne Etezady. The core repertoire remains established at the first ensemble level, with newer voices and works making a great impact at second and third ensemble levels such as those of Julie Giroux, Jennifer Jolley, and Omar Thomas.

Though diversity in programming has increased, there are some instances where one or two composers in a demographic sub-group have significantly higher number of performances than their peers. This reveals a lack of variety in some diverse sub-groups, which may be due to several factors: conductor's awareness of diverse composers, access to their compositions, or focus on living, active composers. Support of composers from across different racial, ethnic, and gender demographics through commissioning new works, repeated performances of recent works, and research to recover lost or forgotten works will continue furthering progress towards the wind band field's goal of pluralistic and artistic programming across all ability levels.

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Appendix I: Composer Frequency (Top 10) by Sub-Groups

Most Frequently Performed White Women Composers (across all ensemble levels)

<i>Composer</i>	<i>Number of Performances</i>
Julie Giroux	41
Jennifer Higdon	19
Roshanne Etezady	17
Shelley Hanson	14
Kathryn Salfelder	12
Nicole Piunno	11
Kimberly Archer	9
Alex Shapiro	9
Carolyn Bremer	7
Cindy McTee	7
Joan Tower	7

Most Frequently Performed Black Men Composers (across all ensemble levels)

<i>Composer</i>	<i>Number of Performances</i>
Omar Thomas	46
Kevin Day	23
Carlos Simon	12
Anthony Barfield	11
Katahj Copley	11
Dwayne S. Milburn	7
Adolphus Hailstork	6
Scott Joplin	6
Quinn Mason	6
William Grant Still	4

Most Frequently Performed Latino Men Composers (across all ensemble levels)

<i>Composer</i>	<i>Number of Performances</i>
Arturo Marquez	9
Reynaldo Hahn	6
Roberto Sierra	6
Ricardo Lorenz	5
Daniel Montoya Jr.	4
Silvestre Revueltas	4
Giovanni Santos	4
Alberto Ginastera	3
Astor Piazzolla	3

Programming Trends of the Big Ten Wind Band Programs from 2017-2022

Jaime Texidor	3
Victoriano Valencia	3

Most Frequently Performed South Asian Men Composers (across all ensemble levels)

<i>Composer</i>	<i>Number of Performances</i>
Narong Prangcharoen	2

Most Frequently Performed Middle Eastern Men Composers (across all ensemble levels)

<i>Composer</i>	<i>Number of Performances</i>
Nebal Maysaud	1
Daniel Reza Sabzghabaei	1

Most Frequently Performed First Nations Men Composers (across all ensemble levels)

<i>Composer</i>	<i>Number of Performances</i>
Brent Michael Davids	1

Most Frequently Performed East Asian Men Composers (across all ensemble levels)

<i>Composer</i>	<i>Number of Performances</i>
Viet Cuong	20
Roger Zare	14
Yasuhide Ito	10
Zhou Tian	10
Hirokazu Fukushima	6
Yo Goto	6
Toru Takemitsu	3
Shuhei Tamura	3
Satoshi Yagisawa	3
Chen Qian	2
Yosuke Fukuda	2
Jun Nagao	2
Tan Dun	2
Thomas Yee	2
Zhou Long	2

Most Frequently Performed Intersectional Men Composers (across all ensemble levels)

<i>Composer</i>	<i>Number of Performances</i>
Edmond Dede	1
Erik Santos	1

Brinberg

Most Frequently Performed Black Women Composers (across all ensemble levels)

<i>Composer</i>	<i>Number of Performances</i>
Valerie Coleman	11
Amanda Aldridge	2
Kathryn Bostic	1
Tania Leon	1

Most Frequently Performed Latina Women Composers (across all ensemble levels)

<i>Composer</i>	<i>Number of Performances</i>
Ivette Herryman Rodriguez	1

Most Frequently Performed East Asian Women Composers (across all ensemble levels)

<i>Composer</i>	<i>Number of Performances</i>
Jennifer Jolley	22
Chen Yi	8
Shuying Li	6
Cait Nishimura	4
Xi Wang	4
Kyong Mee Choi	1
Rika Ishige	1
Wenxin Li	1
Yunfei Li	1

Most Frequently Performed Intersectional Women Composers (across all ensemble levels)

<i>Composer</i>	<i>Number of Performances</i>
Gilda Lyons	1

Notes

¹ Robert Halseth, “The Impact of the College Band Directors National Association on Wind Band Repertoire” (Diss., University of Northern Colorado, 1987), 1–3.

² Frank Battisti, *The New Winds of Change* (Meredith Music: Gainesville FL, 2018), 46–47.

³ Battisti, *The New Winds of Change*, 68.

⁴ Karl Holvik, “An Emerging Band Repertory: A Survey of the Members of the College Band Directors National Association,” *Journal of Band Research* 6, no. 2 (Spring 1970), 19.

⁵ Christian Folk et. al, “Programming Trends of Power Five Conference University Wind Bands From 2011–2022,” *Journal of Band Research* 59, no. 1 (Fall 2023), 60.

⁶ Midwest Clinic rules for performance programming stipulate that at least one work must be composed by a diverse composer: <https://www.midwestclinic.org/programming-rules.html#:~:text=We%20require%20your%20Band%20or,%2C%20and%20For%20Pacific%20Islander.>

⁷ In CBDNA’s revised Vision Statement, there are multiple references to representation, such as “leaders who champion diversity, equity, inclusivity, and belonging in all aspects of our profession.”

⁸ Under the Professional Learning and Growth cornerstone of the Strategic Plan, NAFME calls for representation in several ways, such as “review and update NAFME’s repository of professional development resources to ensure they are current and advance diversity, equity, access, and inclusion” and “create relevant diversity, equity, access, and inclusion learning opportunities for the membership.”

⁹ Rob Deemer and Cory Meals, *2023 Orchestra Repertoire Report* (New York: Institute of Composer Diversity, 2023), 5.

¹⁰ Christian Folk et. al, “Programming Trends of Power Five Conference University Wind Bands From 2011–2022,” *Journal of Band Research* 59, no. 1 (Fall 2023), 64.

MULTIVARIATE SATISFICING: HOW INSTRUMENTAL MUSIC EDUCATORS EVALUATE AND REMEDIATE CONCURRENT ERRORS

Russell Greene

Skills critical to effective teaching from the podium include diagnosing students' musical challenges, identifying proximal goals, and proposing a course of action to remedy those challenges. Though simple in theory, these tasks are complex skills developed through experience (Byo, 1997; Gonzo, 1971) and thus have proved difficult for preservice teachers to acquire (Millican, 2014). Musical performance errors rarely occur in isolation. Whether in ensemble or solo performer settings, teachers must conduct micro-assessments of multiple targets to determine the most critical areas to address (Ambady & Rosenthal, 1992). For novice educators, parsing through the sea of stimuli on the podium may be a barrier to effective teaching. This study investigated how preservice and in-service teachers assess instrumental performances in multivariate situations through the *Multivariate Musical Assessment (MMA)*.

Identifying and bridging gaps in expertise is a principal focus of music teacher education. Effective teachers have a developed notion of ideal musical performance, know what to look for when anticipating student errors, and implement diverse strategies to remediate problems (Duke & Simmons, 2006). On the other hand, preservice and novice teachers often struggle to accurately diagnose causes of performance errors (Millican, 2014) and have limited pedagogical knowledge to address those causes (Rohwer, 2010). Music education courses with teaching lab components (e.g., wind/string/percussion methods) are ideal settings to address these deficits while preservice teachers develop their pedagogy and learn secondary instruments. Thus, it seems pertinent to investigate strategies that best enhance band and orchestra directors' discrimination abilities and pedagogical expertise in methods courses while offering a set of best practices to educators currently in the field.

An extensive body of research has incorporated the planting of controlled errors in musical excerpts to investigate factors that affect error detection acuity (awareness), accuracy, and hierarchies. When observing solo performers, rhythm may be easier to detect than pitch (Byo, 1997; Byo & Sheldon, 2000; Sheldon, 1998), but vice-versa in full ensemble settings (Waggoner, 2011). Texture and the number of parts seem to affect error detection acuity negatively (Byo, 1997; Crowe, 1996; Sheldon, 1998), while acuity is highest on the first listen compared to multiple listenings (Sheldon, 2004) and when listening to recordings instead of live performances (Waggoner, 2011). Research in this area has focused on detecting pitch and rhythm errors, leaving other aspects of music performance for further investigation.

Early attempts to develop training tools for error detection include the *Program in Error Detection* (Ramsey, 1979), a set of 135 music excerpts recorded by a 30-piece wind ensemble

with prepared pitch and rhythmic errors. Both the tool's paper and computer program versions (Deal, 1985) significantly improved error detection, with gains increasing through repeated and extended use. In addition to pitch and rhythm errors, the *Instrumental Music Error Detection Test* (Koner, 2012) added articulation errors to excerpts from Grade 3 band literature. Participation in the program also yielded significant gains in error detection acuity. The efficacious *MLR Visual Diagnostic Skills Test* (Froseth & Woods, 1983) is a visual tool for improving music educators' diagnosis of posture, embouchure, mouthpiece position, and instrument carriage problems. The program includes training slides demonstrating proper flute, clarinet, saxophone, trumpet, trombone, and horn techniques. The test portion contains 32 items, each showing a performance problem for 12 seconds, followed by a 20-second slide requiring the viewer to identify the problem and select an appropriate remedy. Reliability data for the *MLR Visual Diagnostic Skill Test*, from which the design of the present study (*Multivariate Musical Assessment*) draws, is provided in Table 1.

Table 1
Reliability Coefficient, Means, and Standard Deviations of the MLR Visual Diagnostics Test

<i>N</i>	<i>r</i>	Pretest		Posttest	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
77	.80	31.13	7.46	36.85	8.17

Note. Reprinted from Froseth, J. O., & Woods, J. R. (1983). *MLR visual diagnostic skills test*. GIA Publication, 11.

Prior error detection training programs have typically focused on identifying one isolated error at a time rather than a confluence of errors. This mirrors the methodologies broadly utilized in extant error detection research. However, factors affecting the diagnosis of simultaneous performance errors remain under-researched. Furthermore, there has been little investigation into error magnitude (severity). This study underscores the need for further research in these areas, which could significantly enhance our understanding of music education and the processes for organizing concurrent errors into a remediation plan.

Determining causality requires an understanding of multivariable relationships. Band and orchestra settings present the conductor with many variables to evaluate, ranging from individual errors such as pitch, rhythm, or tone quality to group errors such as balance, expression, or timing (among others). Research into multivariate reasoning has indicated that when considering related variables known to affect a specific outcome, individuals tend to assign causation to the most apparent or egregious variable rather than a proportionality of multiple causes, a phenomenon known as *satisficing* (Fay & Klahr, 1996; Kuhn, 2001; Kuhn & Pease, 2008; Simon, 1956). The term, coined by political scientist Herbert Simon, is a blending of *satisfy* and *suffice* to explain how decision-makers select the first solution that meets a satisfactory threshold of rationality rather than exploring more complex or optimal hypotheses. A common adage of instrumental teachers is *more air* when solving a variety of tone and balance-related problems.

However, this is an oversimplification of the multiple facets of tone production, such as airspeed, tongue arch, and embouchure, to name a few.

When determining cause and effect, many struggle to calculate how multiple causes contribute towards a specific outcome. As a result, observers gravitate towards the most straightforward explanation that meets their satisfaction of causality. Fortunately, it seems the ability to consider multiple interacting variables is a skill that can be developed (Kuhn & Dean, 2005). Considering individuals' tendencies to *satisfice* when evaluating complex systems, it is reasonable to wonder what band and orchestra directors are drawn towards when evaluating multivariate errors. By determining factors that impact performance error detection, diagnostic tools and programs of study may be developed to improve deductive reasoning skills. Furthermore, investigations into multivariate analysis of solo performances are necessary to design investigations into full ensemble settings effectively.

This study examined how the magnitude and confluence of performance errors affect instrumental music educators' evaluations of solo student performances and prioritization of eight remediation targets (tone, pitch, rhythm, articulation, tempo, embouchure, carriage, and posture). The objectives of the study were addressed through the following research questions:

1. How does the magnitude of performance errors affect instrumental music educators' ratings of performances and prioritization of remediation targets?
2. How do concurrent pairings of audio and visual performance errors affect instrumental music educators' ratings of performances and prioritization of remediation targets?
3. How do preservice and in-service instrumental music educators compare in their ratings of performances and prioritization of remediation targets?

Method

The University of Alabama Institutional Review Board granted permission to conduct this study on February 8, 2022. The parents of the minors in this study provided assent and consent forms, and participants signed a waiver of informed consent.

Participants

Preservice instrumental music teachers ($n = 146$) enrolled in six undergraduate music education programs in the southeastern United States, and in-service instrumental music teachers ($n = 60$) across the United States participated in the study. All participants either held or were in the process of earning an undergraduate degree in instrumental music education.

Multivariate Satisficing: Music Educators Evaluate and Remediate Concurrent Errors

To maximize the recruitment of preservice teachers, three distribution methods were recommended to participating universities: (1) *Multivariate Musical Assessment (MMA)* distributed in-person during music education courses or convocations while I supervised, and (2) *MMA* distributed by professors without direct contact from me. Five universities chose method 1, and one chose method 2. All preservice teachers solicited from participating universities responded the survey ($n = 163$).

In-service teachers were solicited via email invitation through four distribution methods: (1) nationwide distribution to a randomized sample of 10,000 secondary-level band and orchestra teachers via the National Association for Music Education (NAfME) Research Assistance program, delivered in the summer of 2022; (2) nationwide distribution to all 19,595 band and orchestra teachers via the NAfME Research Assistance program, delivered in November 2022; (3) statewide distribution to 3075 Alabama Music Educators Association (AMEA) members via monthly email newsletter, delivered in October 2022; and (4) direct email distribution to 40 Alabama band/orchestra directors professionally known by me, delivered in September 2022. To encourage further participation, a “thank you” letter at the end of the *MMA* also asked participants to invite their peers to participate via a direct web link.

Participants individually received a URL to a Qualtrics survey containing the *MMA* and were instructed to complete it on their laptop or desktop computer with headphones for an optimal experience. They also had the option to participate on their mobile device.

Data collection ran from April to November 2022, during which 355 individuals responded to the survey (preservice, $n = 163$; in-service, $n = 140$; unlisted, $n = 52$). Data from 206 respondents were deemed viable for this study after additional screening for a survey completion threshold of 91%, band/orchestra teachers, and instrumental music education majors. Among the preservice participants ($n = 146$), 23 were first-year students, 25 were sophomores, 37 were juniors, and 61 were seniors. The initial phases of data analysis sought differences based on pre-service teachers’ college classification or participation in error detection courses. However, no significant differences were observed in these areas. As such, the preservice teachers were grouped to compare with the in-service teachers.

Materials

The *Multivariate Musical Assessment* comprised 56 videos, each with a still-image visual stimulus (see Figure 1) of a middle school French horn player in a seated playing position and an audio stimulus of a four-measure excerpt recorded by a doctoral horn major. Fifty-five videos concurrently presented two of eight possible error types, and one video presented no errors. Eight error types were classified into two groups: audio (tone, pitch, rhythm, tempo, and articulation) and visual (embouchure, carriage, and posture). Error pairs were presented at matching levels of error magnitude, while the remaining six were unaffected. For example, a high error magnitude (HEM) pitch error was presented in concurrence with a HEM tempo error, while the other six

error types were presented with no errors. Conversely, a low error magnitude pitch error (LEM) was presented with a LEM tempo error. Examples of error-type pairings are listed in Table 2, and error magnitude representations are shown in Table 3. The embouchure and carriage variables were limited to HEM representations through variable validation and consolidation in pilot studies.

Figure 1

Errorless Visual Stimulus Sample with Sheet Music of the Audio Stimulus

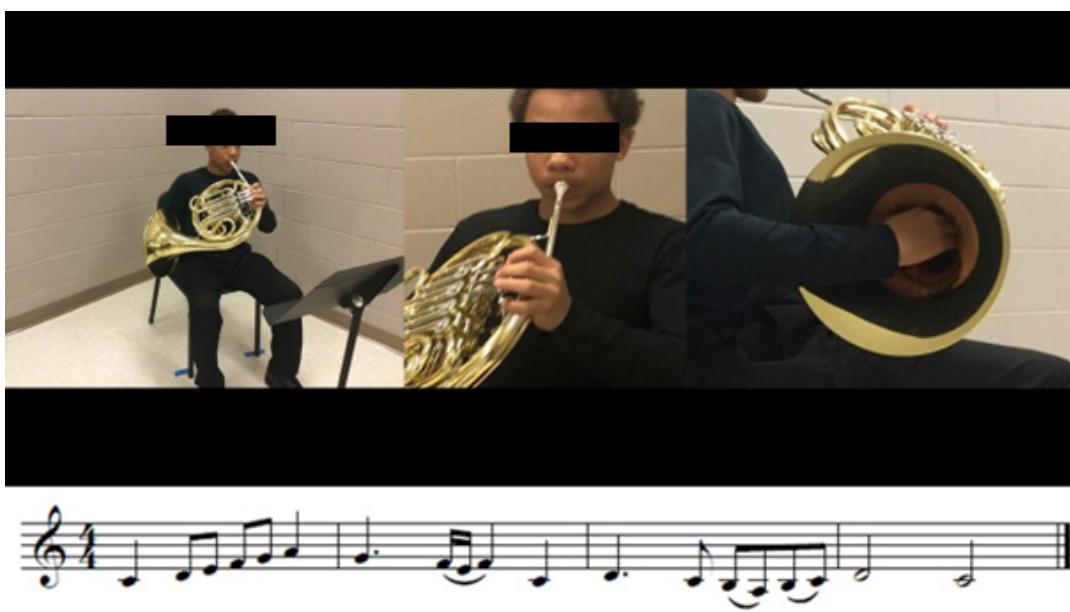


Table 2

Examples of Stimulus Video Error Pairings

Stimulus Video Number	Error A	Error B
1 (Errorless)	None	None
2	HEM Pitch	HEM Rhythm
10	HEM Rhythm	HEM Tone
33	LEM Pitch	LEM Articulation
37	LEM Rhythm	LEM Tempo
56	Carriage	LEM Posture

Note. HEM = High Error Magnitude, LEM = Low Error Magnitude

Table 3

Performance Error Magnitude Representations

Error Type	LEM Representation	HEM Representation
Tone	50% closed jaw and pinched sound	90% closed jaw, very pinched sound
Pitch	Two incorrect pitches	Five incorrect pitches
Rhythm	Two incorrect rhythms	Five incorrect rhythms
Tempo	10 bpm deceleration for one measure, then return to the original tempo	30 bpm deceleration for one measure, then return to the original tempo
Articulation	Inconsistent use of the tongue	No use of the tongue
Embouchure	NONE	Mouthpiece ½ in. vertically off-center
Carriage	NONE	Right hand 2 in. too far in/out bell
Posture	Neck & shoulder contorted 1° – 5°	Neck & shoulder contorted > 5°

The visual stimulus (see Figure 1) included three still images placed above a cropped image of the music excerpt, showing a full-body view of the student, a close-up of their left hand and embouchure, and a close-up of their right hand. The foci of these images were selected based on the visual stimuli in the *MLR Visual Diagnostic Skills Test* (Froseth & Woods, 1983). Additionally, still images were opted for over live video of student performances to improve variable control and limit visual biases regarding the student performers' behavior, movement, or expressivity (Juchniewicz, 2008; Morrison et al., 2009; Thompson et al., 2005; Wapnick et al., 1997/1998/2000). The audio stimulus comprised a 12-second melody at 80 bpm set in the comfortable range of a typical secondary-level horn student. The length of the excerpt was inspired by the *MLR* (Froseth & Woods, 1983), in which, through four pilot studies, the researchers adjusted the allotted time for stimulus assessment to 12 seconds to optimize test administration. A tempo of 80 bpm was selected in line with extant research suggesting musicians prefer moderate or faster tempi (Confredo et al., 2021; Johnson & Geringer, 2007) and are more cognizant of beat and subdivision at 80 bpm compared to quicker or slower tempi (Duke, 1989). A two-measure tap-off at the start of the stimulus established a tempo reference for the participant.

Only one instrument (horn) was used in this study to control the effect of participants' primary instruments on their perception of performance problems (DeCarbo, 1984; Ihas, 2006) and limit the number of required stimuli. The selections of a solo performer rather than an ensemble for both the audio and visual stimuli were made to control participants' focus of attention and account for the negative effect of texture and number of parts on error detection accuracy (Byo, 1997; Byo & Sheldon, 2000; Crowe, 1996; Sheldon, 1998; Waggoner, 2011). This study's findings will be the foundation for exploring multivariate error detection in ensemble settings. Furthermore, it was deemed necessary for proper variable isolation and manipulation for the performer of the audio samples to be a university-trained musician rather than a middle school student. A doctoral horn performance major at The University of Alabama – who could adequately simulate each performance error on demand with my direction and

feedback – performed the audio stimulus recordings. In a local band program, middle school students were recruited to simulate posture, embouchure, and instrument carriage errors authentic at the secondary level (Froseth & Woods, 1983). It is important to note that audio and visual stimuli were present in every video; there were no videos in which there was audio-only/no-visual or visual-only/no-audio. To that end, this study attempted to simulate authentic classroom multi-variate diagnostics by presenting all variables concurrently.

The *Multivariate Musical Assessment* was developed and validated through four pilot studies: (1) determination of error types and magnitude levels, (2) validation of audio and visual stimuli, (3) evaluation of survey model, and (4) evaluation of error representations. Greater detail of the pilot studies can be found in the dissertation from which this article is derived (Greene, 2023). Content of the *MMA* was evaluated by a panel of music educators ($n = 12$) with brass instrument primaries, with representation from collegiate horn instructors ($n = 4$) and middle school ($n = 3$), high school ($n = 3$), and combined MS/HS band directors ($n = 2$). The validity measurements employed in the *MLR* (Froseth & Woods, 1983) were adopted for the present study in which participants rated on a three-point scale how well each example represented the designated error type (1- Inadequate Representation, 2- Adequate Representation, 3- Excellent Representation). Any error representations with a mean rating under 2.00 would be replaced, reevaluated, or eliminated. All selected representations passed the threshold for inclusion in the study. A focus group of undergraduate ($n = 3$) and graduate ($n = 3$) of horn performance majors evaluated the content of the tutorial video (1 – poorly, 5 – very well) for demonstrations of proper horn technique ($M = 4.67$, $SD = 0.52$), clarity of instruction ($M = 5.00$, $SD = 0.00$), and visual clarity ($M = 4.67$, $SD = 0.52$). A final focus group ($N = 15$) rated all proposed error representations to ensure the optimal selection of errorless, LEM, and HEM magnitude examples.

Procedure

The first page of the survey displayed a brief description of the study, followed by the participant consent information. Participants then responded to demographic questions indicating their (a) undergraduate major, (b) status as a preservice or in-service teacher, (c) job title, (d) year in college, (e) years of teaching experience, and (f) primary instrument. Participants then viewed a tutorial video demonstrating proper French horn embouchure formation, instrument carriage, and posture. A subsequent video instructed participants to calibrate their audio levels, defined the terminology of the study, and demonstrated how to respond to the questions using a sample of the errorless stimulus.

Each participant viewed a randomized collection of 11 of the 56 stimulus videos presented via a double-layer randomizer in Qualtrics. In a randomized order, the first layer delivered the three stimulus categories (HEM pairs, LEM pairs, and errorless). The second layer presented five random selections within the HEM and LEM categories. The double-layer randomization resulted in each participant observing the errorless stimulus, five HEM stimuli, and five LEM stimuli. An option within Qualtrics entitled *evenly present elements* was selected to guarantee even distribution of all 56 videos among participants.

Participants were asked to view the videos in full-screen mode, ensure their audio was on, and provide their responses after only one viewing to measure their initial reactions. Two questions followed each stimulus video. The first generated the Performance Rating variable, in which participants gave an overall rating of the stimulus performance on a 5-point scale (shown to participants as 1 – major performance issues, 5 – ideal performance). The second question generated the Remediation Ranking variable, in which participants indicated the importance of addressing each of the eight performance variables with the performer by dragging them into a vertically descending order of importance (output coded as 1 – most important, 8 – least important).

Results

Three independent variables were analyzed for main and interaction effects: *error magnitude* (errorless, LEM, HEM), *pairing type* (errorless, audio-audio, audio-visual, visual-visual), and *teaching status* (preservice, in-service). Three dependent variables included mean *performance rating* (1 – major performance issues, 5 – ideal performance), mean *remediation ranking* (1 – most important, 8 – least important) of error macro groups (audio and visual), and mean *remediation ranking* of individual error types (tone, pitch, rhythm, articulation, tempo, embouchure, carriage, and posture).

Effect of magnitude

A significant effect of error magnitude on mean performance ratings was observed, $F(2, 2245) = 522.3, p < .001, \eta_p^2 = .318$. Performance ratings significantly decreased as error magnitude increased (errorless > LEM > HEM). Performance ratings are shown in Table 3.

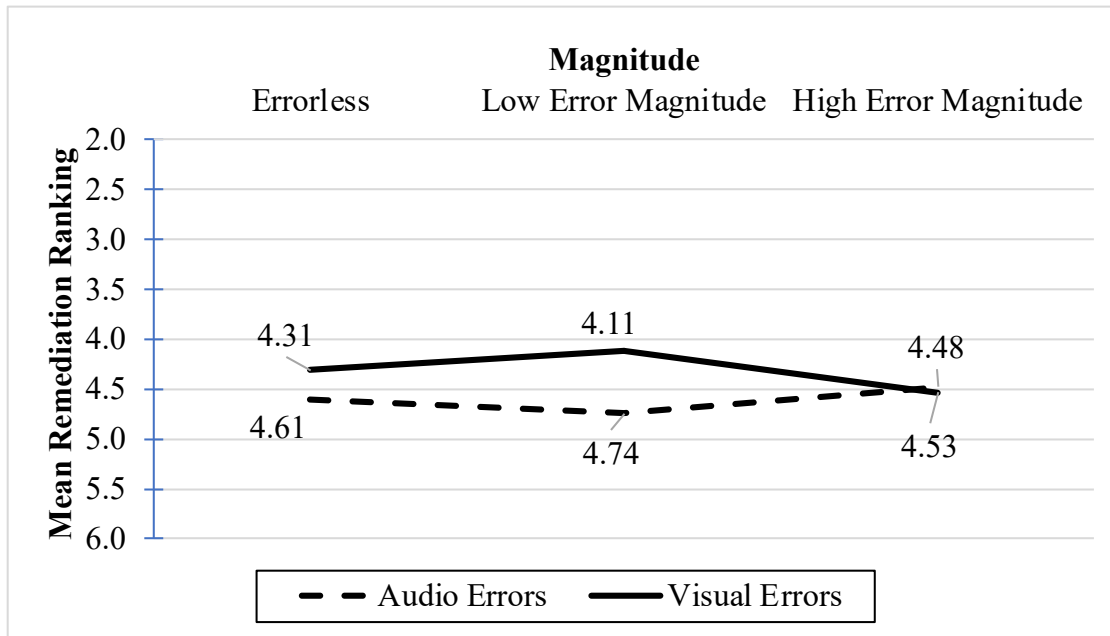
Table 3
Performance Ratings by Error Magnitude and Pairing Type

Stimulus Condition	Performance Rating		
	<i>N</i>	<i>M</i>	<i>SD</i>
Errorless	202	4.59	0.53
Error Magnitude			
LEM	1027	3.43	0.80
HEM	1019	2.69	0.89
Pairing Type			
Visual-Visual	182	3.75	0.85
Audio-Visual	1119	3.17	0.85
Audio-Audio	745	2.72	0.92

Note. Significant differences in mean performance ratings were observed between all error magnitude and pairing type conditions, $p > .05$.

Participants' remediation rankings of error macro groups (see Figure 2) were found to be significantly affected by error magnitude, $F(2, 2245) = 20.45, p < .001, \eta_p^2 = .018$. Participants prioritized the remediation of visual errors in LEM stimuli ($M = 4.11, SD = 1.42$) over audio errors ($M = 4.74, SD = 0.85$), $t(1026) = 8.89, p < .001, d = 2.27$; however, there was no difference in the remediation rankings of audio and visual errors in the errorless stimulus or HEM stimuli.

Figure 2
Remediation Rankings of Error Macro Groups by Error Magnitude



Note. The Y-axis is inverted to show that as the arithmetic mean ranking decreases, its remediation priority increases (1 – high priority, 8 – low priority).

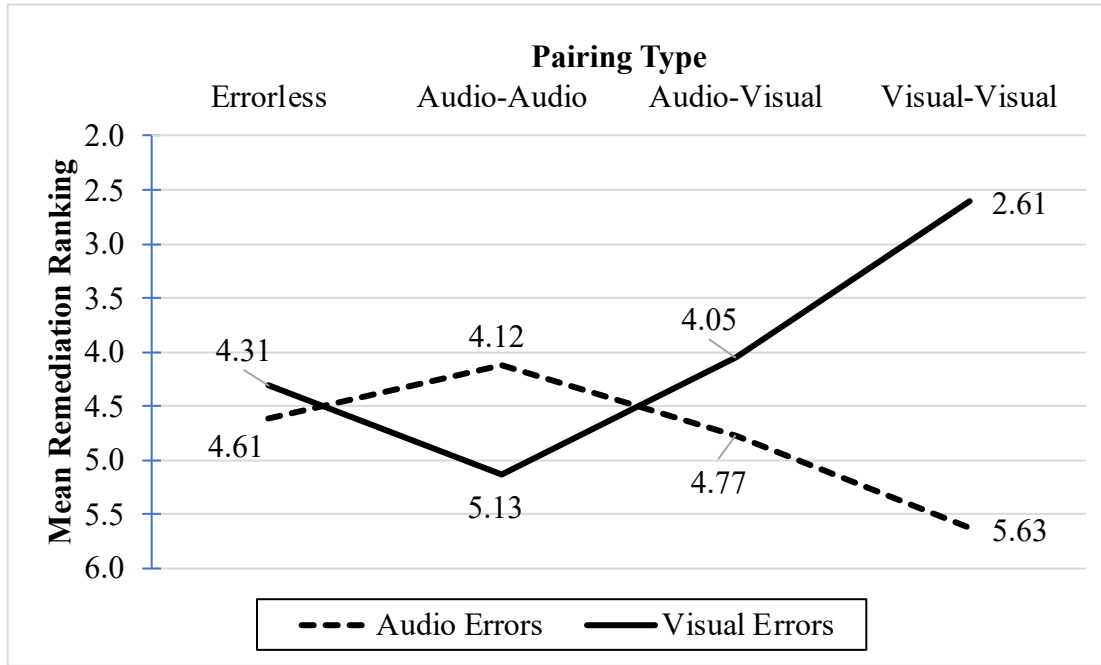
Effect of pairing type

A significant main effect of pairing type on mean performance ratings was observed, $F(2, 2244) = 283.71, p < .001, \eta_p^2 = .275$. Participants rated performances lower as the inclusion of audio errors increased (visual-visual > audio-visual > audio-audio).

Participants' remediation rankings of error macro groups (see Figure 3) were found to be significantly affected by pairing type, $F(2, 2244) = 208.70, p < .001, \eta_p^2 = .218$. Participants increased their priority of remediating audio errors as the inclusion of audio errors increased (visual-visual < audio-visual < audio-audio). The same was true for the remediation priority of visual errors as the inclusion of visual errors increased (audio-audio < audio-visual < visual-visual). However, participants were more likely to remediate visual errors than audio errors in visual-visual and audio-visual stimuli, while audio errors were prioritized in audio-audio stimuli. There was no statistical difference between audio and visual error remediation rankings in the errorless stimulus.

Figure 3

Remediation Rankings of Error Macro Groups by Pairing Type

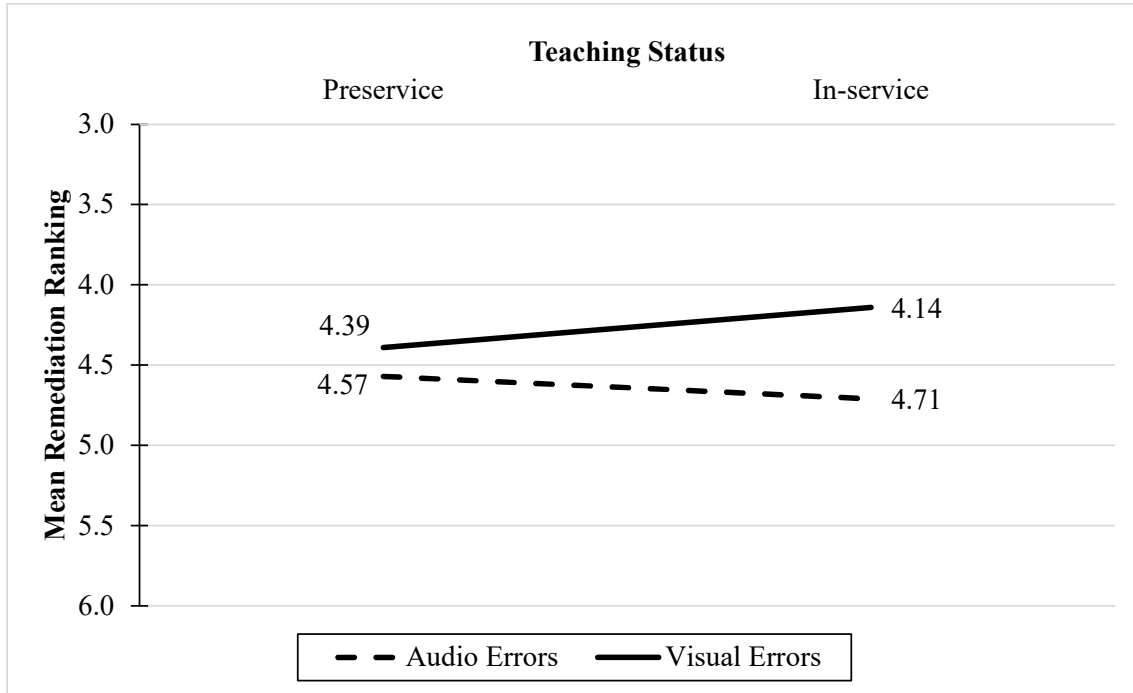


Note. The Y-axis is inverted to show that as the arithmetic mean ranking decreases, its remediation priority increases (1 – high priority, 8 – low priority).

Effect of teaching status

Preservice and in-service teachers' performance ratings of the errorless performance were not significantly different from each other, $t(200) = 0.63, p = .528$. Participants rated the errorless excerpt as an ideal or near-ideal performance ($M = 4.59, SD = 0.53$). No significant main effects of teaching status on performance ratings were observed to be significant, $p > .05$.

Preservice and in-service teacher rankings of error macro groups (see Figure 4) were found to be significantly different from each other. In-service teachers prioritized the remediation of visual errors more than preservice teachers, $t(1262) = 3.58, p = <.001, d = 1.50$; while preservice teachers prioritized remediating audio errors more than in-service teachers, $t(1262) = 3.58, p = <.001, d = 0.90$. Both groups were observed to significantly prioritize the remediation of visual errors over audio errors: Preservice, $t(1594) = 2.97, p = .003, d = 2.43$; In-service, $t(652) = 6.30, p < .001, d = 2.32$.

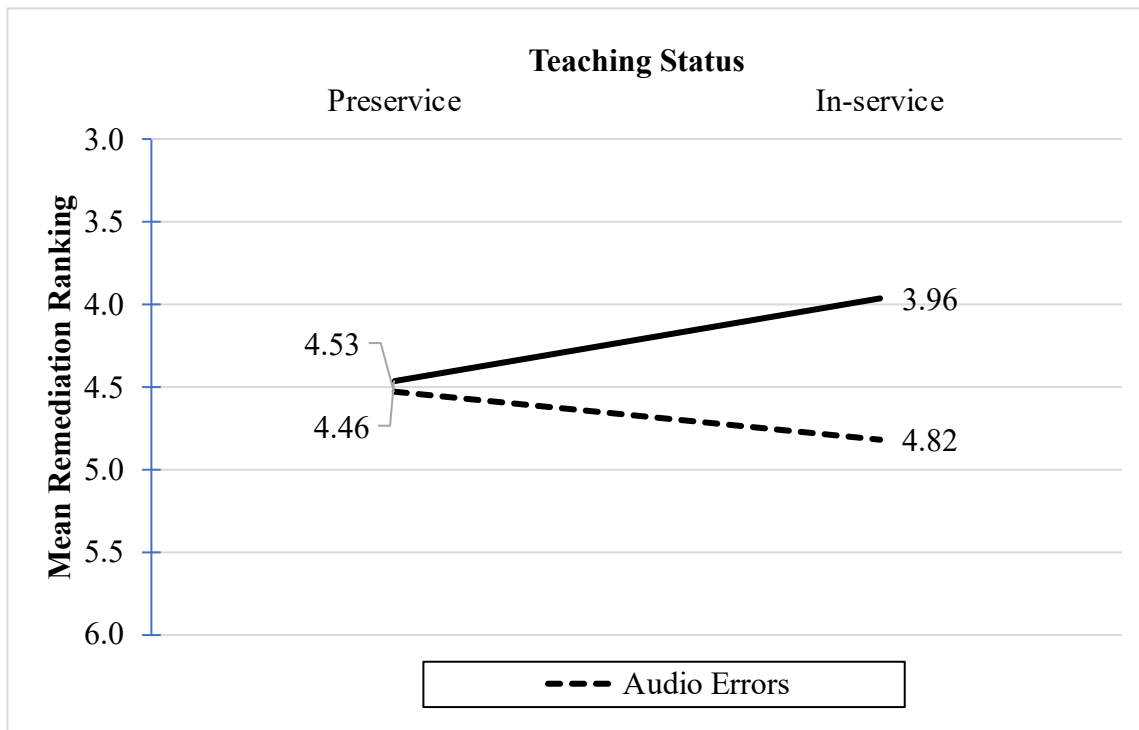
Figure 4*Remediation Rankings of Error Macro Groups by Teaching Status*

Note. The Y-axis is inverted to show that as the arithmetic mean ranking decreases, its remediation priority increases (1 – high priority, 8 – low priority).

Preservice and in-service rankings of error macro groups in the errorless stimulus (see Figure 5) were significantly different, $t(200) = 2.02, p = .045, d = 1.58$. In-service teachers prioritized the remediation of visual errors over audio errors, $t(57) = 2.83, p = .007, d = 2.33$; however, a similar prioritization was not found for preservice teachers, who showed no preference towards the remediation of visual errors or audio errors, $t(143) = 0.33, p = .746$.

Figure 5

Errorless Stimulus Remediation Rankings of Error Macro Groups by Teaching Status

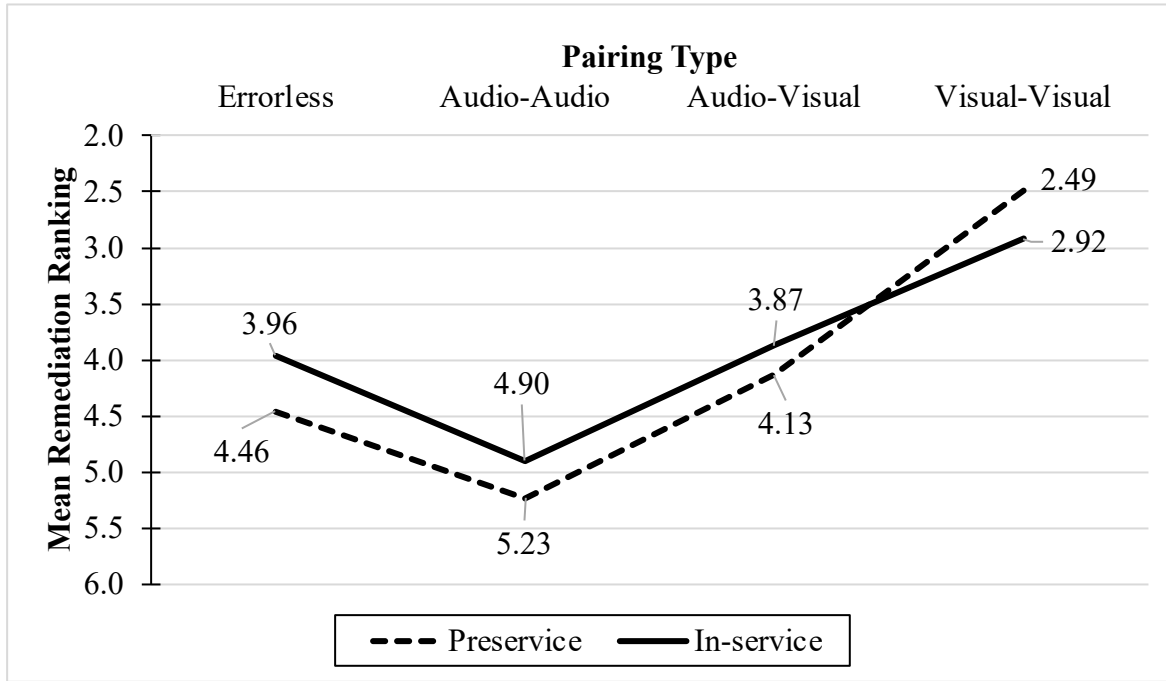


Note. The Y-axis is inverted to show that as the arithmetic mean ranking decreases, its remediation priority increases (1 – high priority, 8 – low priority).

A small but significant interaction effect of teaching status and pairing type on mean remediation rankings of performance error macro groups was observed, $F(3, 2240) = 3.86, p = .009, \eta_p^2 = .005$ (see Figure 6). For errorless, audio-audio, and audio-visual stimuli, in-service teachers demonstrated a higher prioritization of remediating visual errors than preservice teachers; however, for visual-visual stimuli, preservice teachers increased their focus on remediating visual errors at a greater rate. The inverse was true that preservice teachers showed greater prioritization of remediating audio errors than in-service teachers for errorless, audio-audio, and audio-visual stimuli and decreased their prioritization of audio errors at a greater rate for visual-visual stimuli.

Figure 6

Interaction of Teaching Status and Pairing Type on Visual Error Remediation Rankings



Note. The Y-axis is inverted to show that as the arithmetic mean ranking decreases, its remediation priority increases (1 – high priority, 8 – low priority).

Teaching status significantly affected the remediation rankings of articulation, tempo, embouchure, and carriage (See Table 4). Preservice teachers placed a higher remediation priority on audio variables (articulation and tempo). In comparison, in-service teachers placed a higher priority on certain visual variables (embouchure and carriage). No significant differences were observed for tone, pitch, rhythm, and posture, $p > .05$.

Table 4

Remediation Rankings of Error Types by Teaching Status

Error Type	Ranking				Difference			
	Preservice		In-service		<i>df</i>	<i>t</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Tone	4.07	2.15	3.98	2.09	1244	0.91	.364	
Pitch	4.74	2.37	4.72	2.40	2246	0.11	.916	
Rhythm	4.54	2.39	4.63	2.48	1173	0.80	.424	
Articulation	4.14	1.94	4.47	1.97	2246	3.67	<.001	1.95
Tempo	5.36	2.26	5.77	2.20	1244	4.00	<.001	2.24
Embouchure	4.37	2.15	4.03	1.98	1312	3.57	<.001	2.10
Carriage	4.04	2.26	3.74	2.14	1276	2.97	.003	2.23
Posture	4.76	2.47	4.66	2.42	2246	0.85	.396	

Note. As the arithmetic mean decreases, its remediation priority increases. (1 – high priority, 8 – low priority)

Discussion

Effective band and orchestra instruction involves the discrimination of musical errors and the prescription of solutions. Extant error detection research has historically investigated the detection of singular errors; however, authentic performance errors rarely occur in isolation but rather in tandem with other variables and at varying levels of severity. Research outside of the music field has investigated the tendency of individuals to attribute observed effects to the causes of extreme values of a particular variable rather than a confluence of many factors (Kuhn, 2007; Kuhn & Pease, 2008). The present study investigated how preservice and in-service band and orchestra directors compare in their assessment of performance errors at varying degrees of error magnitudes and when different errors occur together.

Effect of error magnitude

Error magnitude significantly affected how participants rated musical performances and had varying degrees of effect on remediation targets depending on the error type. Analysis of error macro group remediation rankings suggests shifting priorities at different levels of error magnitude. Visual error remediation took priority in instances of low error magnitude; however, in errorless and high error magnitude stimuli, remediation priority approached 50% distribution between visual and audio errors. It seems intuitive to split remediation targets when no errors are present, as teachers may default to their remediation hierarchies for musical or technical skills. Additionally, participants may infer non-existent errors when there are no apparent flaws

in the performance, as evidenced in prior error detection research (Sheldon, 2004). The shifting calculus of remediation priority suggests teachers' perceptions of causality may be contingent upon the severity of performance errors. Participants were likelier to address causal relationships between proper instrumental technique (visual errors) and musical mistakes (audio errors) at low degrees of error magnitude. However, at high error magnitude, they shifted their focus to remediating the most egregious errors before addressing underlying relationships.

Effect of pairing type

Pairing type significantly affected performance ratings and remediation targets differently, providing insight into how participants diagnose problems. Performance ratings decreased across all pairing types compared to the errorless stimulus and seemed to decrease as the presence of audio errors increased (errorless > visual-visual > audio-visual > audio-audio). The remediation priority of error macro groups (audio and visual) increased as the presence of that error type increased; however, visual errors received the highest remediation priority in all pairing types except audio-audio. Considering audio errors received lower performance ratings while visual errors received higher remediation priority, participants may have partially attributed causes of audio errors to underlying errors in embouchure, carriage, or posture. These findings suggest that a hierarchy of error type detection and remediation exists, which has been observed to varying degrees in extant research (Blocher, 1986; Byo, 1993/1997; Byo & Sheldon, 2000; Groulx, 2013; Waggoner, 2011).

Effect of teaching status

Analysis indicated no significant differences in performance ratings between preservice and in-service teachers. This suggests that both groups are part of the same population regarding the performance rating dependent variable and that remediation rankings may be more valid for assessing differences between groups. In other words, both preservice and in-service teachers were equally capable of detecting and quantifying their abstract notions of diminishing performance quality. However, differences remain in how they diagnose and address those problems.

Both groups were shown to prioritize the remediation of visual errors; however, in-service teachers were significantly more likely to do so than preservice teachers. This echoes the findings that visual errors were more targeted for remediation despite audio errors receiving a lower performance rating. Therefore, participants – particularly in-service teachers – may have associated causes of audio errors with underlying embouchure, carriage, or posture issues.

The tendencies of preservice teachers to remediate audio errors were evidenced through their focus on articulation and tempo, while the tendencies of in-service teachers to remediate visual errors were evidenced through embouchure and carriage. This suggests preservice teachers are less familiar with observing proper instrument technique. Their focus on musical details

reflects the demands of their undergraduate environment in which they are rigorously involved in music study and music making. Preservice teachers are steeped in musical knowledge acquisition through their undergraduate curricula but have fewer authentic and guided experiences in diagnosing and remediating technical issues – experiences that may not frequently occur until their internship or first job placement (Killian et al., 2013). Unsurprisingly, preservice teachers default to what they are most comfortable doing: analyzing music. These findings reinforce extant research suggesting preservice teachers lack the sophistication to diagnose and remediate underlying causes of instrumental performance errors (Millican, 2014; Rohwer, 2010) and thus require more authentic teaching experiences to develop these skills before employment (Berliner, 2001; Millican & Forrester, 2019).

Analysis of the errorless stimulus showed interesting differences in preservice and in-service teacher remediation priorities. In-service teachers significantly focused on the remediation of visual errors over audio errors, while preservice teachers were indiscriminate in their remediation strategy. This suggests that in-service teachers have a default remediation behavior that seeks to reinforce proper embouchure, carriage, and posture without other targets. On the contrary, preservice teachers seemed to lack direction for what to address when they could not perceive an error. In-service teachers may understand the importance of repeatedly addressing fundamental skills before tackling musical issues (Duke, 2019). In-service teachers may develop these behaviors by managing their classroom environment, as the remediation of visual errors is affiliated with commonplace classroom rules and expectations. For example, band directors often get their students' attention with a reminder to sit up in their chairs, eyes directed towards the podium, holding their instruments properly, and other disciplinary checks. These findings reinforce what Duke (2019, p. 93) offers as one of the chief components of effective teaching: building students' "habit strength" resulting in "...consistent, productive repetition over time."

Differences observed between preservice and in-service teachers support research implying expertise may not only affect error detection acuity and accuracy (Brand & Burnsed, 1981; Byo, 1997; DeCarbo, 1984; Gonzo, 1971; Killian, 1991; Larson, 1977) but also how underlying causes are identified and remediated (Millican, 2014; Millican & Forrester, 2019). Both groups seemed to satisfice (Fay & Klahr, 1996; Kuhn, 2001) high magnitude errors, however, in-service teachers tended to consider correlated causes, choosing to remediate embouchure, carriage, and posture to address audio performance issues. This is concurrent with eye-gaze tracking research, which suggests expert teachers scan a more comprehensive range of target areas and can focus on the most critical issues, while novices are more drawn to distractors (Duke & Marcum, 2016; Todd, 2017; Wolff et al., 2016).

Recommendations for Future Research

Research into multivariate processing and deductive reasoning has found that individuals better understand variable intensity and confluence when manipulating variables and observing

the results (Kuhn & Dean, 2005; Wilson et al., 2010). Future research can assist with developing training tools by addressing the breaking points at which error magnitude and confluence impact the focus of attention. Undergraduate programs may consider implementing activities that allow preservice teachers to tinker with several performance variables and measure the observed effects. Teaching labs or dedicated ensembles for music education majors can enable preservice teachers to exercise their problem-solving skills in a controlled environment. Expanding authentic-context teaching scenarios can help bridge the expertise gap between preservice and in-service teachers, thus encouraging early success in the profession.

The chief aim of incorporating error magnitude in this study was to identify the breaking points that shift the focus of attention from one error type to another. An area that may need further refinement is the delineation of gradient and dichotomous depictions of error magnitude. Pitch and rhythm errors, for example, were depicted with increasing numbers of errors (0, 2, 5). There remains a question of whether pitch and rhythm error remediation priority is merely an issue of frequency within a given passage or the egregiousness of an error. Tone, articulation, embouchure, carriage, and posture were presented dichotomously but existed continuously throughout an excerpt rather than at isolated moments. Differences in the focus of attention and remediation priority of intermittent and continuous error types require further investigation.

A possibility remains that the design of visual and audio stimuli may have biased participants towards the remediation of visual errors. While this study's results confidently suggest in-service teachers' tendency to prioritize visual error remediation over audio errors, further validation with eye-gaze tracking technology is warranted. The results of this study may even clarify extant music education eye-gaze research. Previous findings point to novice teachers directing their gaze towards distractors in the classroom (Wolff et al., 2016) and being more haphazard in their focus (Duke & Marcum, 2016), while experts are more capable of scanning several areas and homing in to identify causal relationships (Todd, 2017). Music educator eye-gaze research is novel and has yet to incorporate error magnitude or confluence. That teachers prioritize the remediation of visual errors also adds credence to programmed drill materials that train the identification of posture, carriage, and embouchure errors (Froseth & Woods, 1983). Considering the benefits of error detection acuity observed in recorded and lab scenarios over live performances (Waggoner, 2011), it stands to reason that a blending of eye-gaze research with programmed drill materials may help train preservice teachers where to look, what to look/listen for, and how to remediate performance errors. Further research in this area would also benefit from the manipulation of other visual variables known to impact evaluations of live performances, such as performer gender, attractiveness, expressivity, and movement (Juchniewicz, 2008; Morrison et al., 2009; Thompson et al., 2005; Wapnick et al., 1997, 1998, 2000).

This study presented only two errors concurrently, while the remaining six were left unaltered. Increasing levels of error confluence will need to be incorporated to investigate further the effects of magnitude and confluence observed in non-musical fields of research (Ambady &

Rosenthal, 1992; Fay & Klahr, 1996; Kuhn, 2001; Kuhn, 2007; Kuhn & Pease, 2008). Authentic teaching experiences present many variables simultaneously, requiring teachers to quickly detect errors and prioritize high-value remediation goals before instructing students. This is even more true in ensemble settings, where teachers must assess multiple students. The findings from this study may be further refined through broader investigations into ensemble multivariate analysis.

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