

TOWARDS AN ANALYTICAL METHODOLOGY FOR VOCALISTS' LIVE MOVEMENTS IN EXTREME METAL

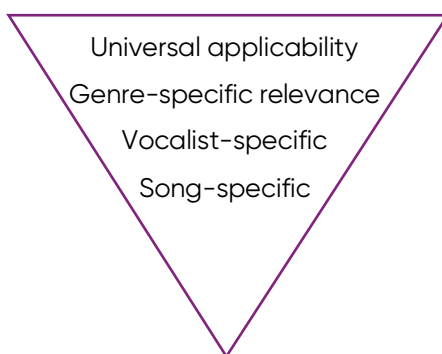
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INTRODUCTION

What can we learn from the bodily movements and gestures of vocalists? Instinctively, it is immediately apparent that a vocalist's physical presence can tell us a great deal since non-verbal communication and body language are integral to conveying emotions and refining speech, often without our conscious awareness. In some ways, physical movements provide too much information than is relevant or meaningful. In other ways, physical gestures provide too little. They may seem too subtle or ubiquitous to lend insights into a vocal performance or recording. Following the inspiration of research on gesture, such as Fernando Poyatos' (e.g., 1993, 2002) career-long work on paralanguage and Mariusz Kozak's (2015) study of performance gestures for the analysis of contemporary composition, we believe that there lies considerable potential in extracting analytical insights from the conscious and non-conscious movements of vocalists, depending on several factors and contexts that we outline below. Our approach is separate from, but complementary to, Stephen Hudson's analyses of the periodicity of headbanging in metal music (2022), which focus on rhythmic patterning and communal entrainment. It is similarly distinct from and complementary to Florian Heesch and Daniel Suer's research on the dance practices of metal fans (Heesch and Suer, *forthcoming*; Suer 2023). We focus on the physical movements, gestures, mannerisms, and body postures of vo-

calist performers in a broadly inductive way to glean insights into genre, individual artistry, and the rhetoric of specific songs.

Focusing on metal music, we parse our analyses into a series of shifts from universally shared movements to highly individual idiosyncrasies (Figure 1). Some movements, such as the need to inhale and exhale, are universally shared. Their ubiquity in performance can help visually observe musical phrasing by watching for breathing patterns and limb movements synchronized with them. Other aspects of physicality, like common stances shared between performers, provide insights into the semiotics of genre, suggesting how emotions factor into a performance or revealing implicit beliefs about authenticity. Accordingly, we use the stances and mannerisms of black metal and metalcore vocalists to make arguments about how their performances embody genre-specific kinds of musical expression and ideals of authenticity. Some observations are particular to individual vocalists. For instance, a vocalist's ›anchor stance,‹ a physical reference point of stability throughout a performance, will change from performer to performer. We use George »Corpsegrinder« Fisher of the death metal band Cannibal Corpse as an example to demonstrate how a vocalist's anchor stance can provide a baseline reference point for a music analyst who can then observe how the deviations from that stance connect with musical expression—of the lyrics, of the musical accompaniment, and of the stylistic rhetoric that drives musical form. At the most detailed, idiosyncratic level reside song-specific investigations of how vocalists move during performance. Using video footage of Cannibal Corpse's »Unleashing the Bloodthirsty« (1999) across multiple decades, we observe what lyrical dramatizations remain consistent over



multiple tours. This kind of data carries implications not only for those who wish to conduct close readings of artistic texts but also for more philosophical discussions about what constitutes the essence of a particular musical work.

Figure 1. Levels of generality, from universals to individual idiosyncrasies.

Our article proceeds through five investigations that build upon each other towards a holistic understanding of how vocalist movements during live performances can be used to infer conclusions about musical expression and genre. The first two establish some groundwork for this analysis: the first introduces a key relationship between physical movements and vowel for-

ments; the second establishes a baseline reference point called an anchor stance, against which subsequent investigations can be compared. The third and fourth investigations reveal how movements away from the anchor stance are useful for shedding light on hermeneutic aspects of songwriting and performance: the third shows how subtle changes in body position anticipate processes of intensification within song structures, while the fourth shows how gestures that act out lyrics occur in certain contexts related to cognitive thresholds around difficulty and related to vowel phonetics. We finish with an analysis of genre-specific mannerisms that sheds light on ideals of authenticity within those genres. Our methodology involves close examinations of audiovisual texts from live DVD footage, YouTube still shots, and open-ended Google Image searches such as »metalcore vocalist« to see what patterns arise.

FRANTIC DISEM-VOWEL-MENT: THE CORPOREAL ANALYSIS OF EXPRESSIVE VOWELS

Previous research by Eric Smialek and colleagues (Smialek et al. 2012a, 2012b, Smialek 2015, Smialek 2025), as well as the publications of Heesch (2018, §31) and Béranger Hainaut (2020: 154), have gathered a wide variety of evidence that vowel formants play an important role in extreme metal vocals. This section builds on those findings by focusing on how vocalists move their bodies when they draw upon vowels as an artistically expressive resource during their performances.

In »Unleashing the Bloodthirsty« by Cannibal Corpse, vocalist Fisher emphasizes the word »blood« each time it recurs in the chorus by sustaining the vowel for several seconds and by employing the higher of his two vocal registers. In this high register, the [ʌ] vowel that one might expect to hear in the word »blood« is replaced by the much brighter [a] vowel. Every time this moment occurs in the chorus, he also omits the final consonant, allowing the vowel to expressively trail away (Figure 2). The result is closer to »BLAAAAAH!« than »blood,« resulting in a dramatic exclamation at the expense of lyrical intelligibility.

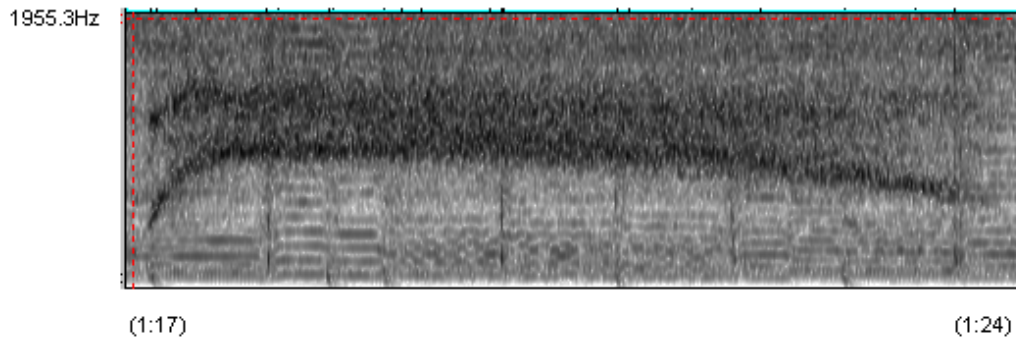


Figure 2. Spectrogram generated with Praat software showing vowel modification (brightening) in »Unleashing the Bloodthirsty.«

Especially when performing live, Fisher sometimes repeats this vowel modification with other lyrics that similarly call for climactic emphasis at the end of a passage. One such moment during the bridge involves rhyming lyrics that, in Fisher's American accent, should involve the same vowel: »Torn apart/Eat the heart.« However, his actual delivery of these words may differ substantially regarding vowel sounds. During live performances, he sometimes pronounces the first line with the extra heaviness of a lower-than-expected vowel¹ [ɔ] instead of [a] and delivers the second line with the heightened intensity of a higher-than-expected vowel [a] instead of [a]. Figure 3 uses arrows to show how these vowels shift from their expected, spoken positions in a »Smial-graph,« an adaptation of the International Phonetic Alphabet (IPA) vowel space for metal vocals (see Smialek 2025: 316–318 for a detailed explanation). Briefly summarized, it uses linguist Geoff Lindsey's (2013) condensed IPA space to prioritize sound over tongue position, rotates the traditional IPA space so that high vowels appear on top and low vowels appear near the bottom, and colors the corners to reflect how the cardinal vowels map onto genre: high black metal screams in black, low death metal growls in red, and pig squeals² in green to convey their uncanny combination of low and high formants. With this visualization, one can see how Fisher alters the vowel qualities of his lyrics for the aesthetic ideals of heaviness (lower) and intensity (higher) (Herbst & Mynett 2022a), corresponding to his two contrasting vocal registers. In some live performances, he even elides some of the words altogether so that »Eat the heart« sounds more like »Eat

1 In their empirical studies on metal music production, Herbst and Mynett (2022a, 2022b) find that a pronounced sonic weight is a central criterion for heaviness in metal. Similarly, performers or producers utilize techniques such as lowering the pitch and darkening the timbre to enhance heaviness.

2 Pig squeals are inhaled vocal techniques that manipulate the ventricular and aryepiglottic folds to create an uncanny [i] vowel sound that combines the heaviness of a low first formant with the intensity of a high second formant, resembling a squealing pig.

AAAAAH.« In each instance, one can clearly observe how the expressive qualities of the vowels supersede any interest in lyric comprehension.

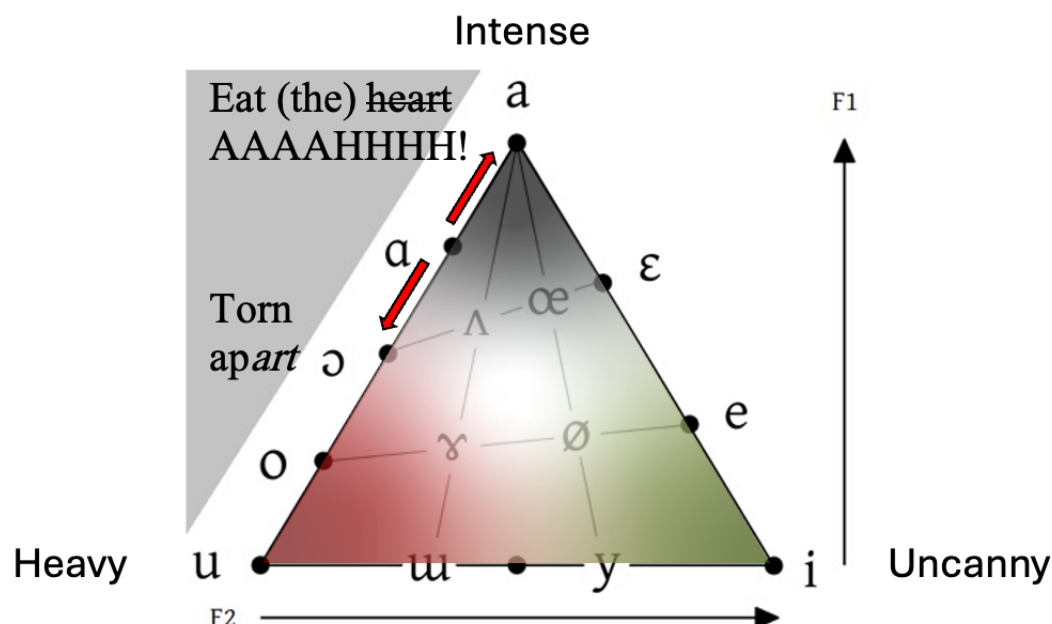


Figure 3. »Smial-graph« demonstrating vowel modulation in »Unleashing the Blood-thirsty.«

An important reason vowels might morph from their expected qualities in speech to more expressive alterations is because of the physiological affordances of different extremes within the space (i.e., the cardinal vowels). The [u] vowel results in rounding the lips, retracting the tongue, and lowering the larynx, thus maximizing the length of the vocal tract in imitation of a maximally large sound source in the service of heaviness (Herbst & Mynett 2022a, 2022b). The [a] vowel, favored alike by wailing babies and adults plummeting from a precipice, achieves its intensity largely by opening the jaw wide, facilitating maximum loudness. With the jaw opening corresponding with the vertical axis, one can better understand the significance of metal screams that exhibit an arching movement across the space, beginning with a closed jaw, opening it, and closing again. In practice, one often finds this accompanied by a gradual rounding of the lips so that the vowel sounds maximally heavy at its conclusion.

This was the finding that Smialek (2015: 252–69) observed in his corpus analysis of 85 songs that begin with wordless vocalizations on different vowel sounds. Within that corpus, the arching movement just described was most noticeable with the black metal band Dark Funeral (ibid.: 263), spurring our curiosity about how those sounds would relate to the vocalist's physical movements. During the live performance of Dark Funeral's »My Funeral«

(2009),³ vocalist Andreas »Heljarmadr« Vingbäck performs a slow, sustained scream near the very end of the song, the kind of idiomatic, textless vocalization that often signals a beginning or ending. The spectrogram below (Figure 4) shows how the vowel quality changes, sometimes suddenly and sometimes only after sustaining a sound for many seconds. A rapid change occurs from around 4:49.5 to 4:51.0, where the scream climbs upwards from the [i] space, staying briefly around [e], and quickly transitioning to a sustained [a] scream. A thick band of spectral energy between 1 and 1.5 kHz is visible in the spectrogram for this sustained vowel. Much less visually evident is the quick descent to [ʊ] that happens just after 4:58. The first formant (F1) becomes only slightly visible for that vowel, but in conjunction with the audio recording, it is clear that this vowel plays a concluding role by not only finishing the scream but also briefly descending within the vowel space, completing the arching shape shown by the arrow across the Smial-graph overlaid at the bottom of Figure 4.

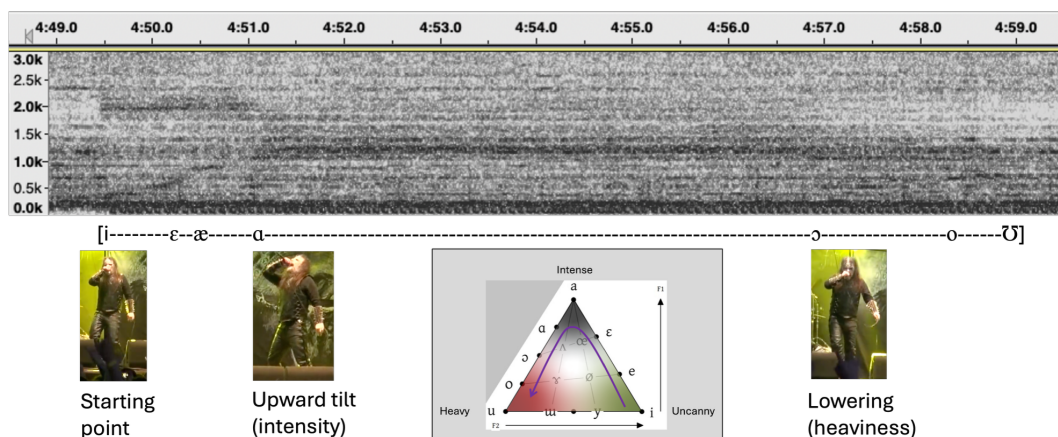


Figure 4. Sustained scream with changing vowel qualities in an arching shape in »My Funeral.«

Accompanying this arching motion are corresponding changes in head position. As the jaw opens and the vowels become higher, Vingbäck tilts his head back and his torso moves back with it. Once the arching motion descends and the jaw closes, he hunches forward again. We can think of these correspondences between vowel sounds and physical shifts in at least two ways. The head tilt may be partly a physiological corollary to vowel production in a comparable way to how jaw opening, lip rounding, and tongue position shape particular vowels. More likely, however, within this clip, the head and torso tilting seem to be hermeneutic corollaries. That is, they are ges-

3 »Dark Funeral—My Funeral Live At Metalhead Meeting Bucharest Romania 12-06-2015.« <https://www.youtube.com/watch?v=zPVFhO1pgfQ> (accessed 18 April 2024).

tural shifts that communicate a sense of intensification and emergence then recession and closure as the arching motion draws to an end. In other words, they are natural ways of embodying the expressive differences between intensity with high-frequency sounds and heaviness with low-frequency vowels. Such a vowel-oriented distinction between different kinds of gestural shifts will prove useful as tools to make observations about how processes of intensification and climax function in relation to song form on a local level.

AN ANCHOR STANCE: A STABLE REFERENCE POINT OF DEPARTURE AND RETURN

To further our analysis of vocalists' movements, we need to establish a baseline reference against which their subsequent movements can be compared. Returning to Fisher, whose vowel shifts we discussed above, we observe his default position during spoken concert banter and rapid verses filled with lyrics. With one foot on the monitor speaker, Fisher plants his legs wide for balance, one arm free or resting on his leg while the other holds the microphone (Figure 5). So consistently has he adopted this position that one finds it in fan art that depicts this pose (also in Figure 5).



Figure 5. George »Corpsegrinder« Fisher's anchor stance during a live performance (left) and in fan artwork (right).⁴

⁴ Live Metal. <https://live-metal.com/2021/11/19/george-corpsegrinder-fisher-to-release-debut-solo-album-on-feb-4> (accessed 18 April 2024). Deviant Art. <https://www.deviantart.com/betkaism/art/George-Corpsegrinder-Fisher-902716457> (accessed 18 April 2024).

In discussions on our preliminary research, singer Kate Holden pointed out that Fisher's use of a default position on stage seemed comparable to what she calls her anchor stance. She explained that she uses an anchor stance as a point of stability, occasionally moving away from it but consistently returning as a reference point. Fisher's similarly consistent use of a default stance provides a useful foundation around which to base a comparative analysis of his movements whenever he departs from his anchor stance. It provides the point of reference against which to compare temporary shifts of relative instability that harbor various kinds of significance.

For instance, one can observe how his torso might shift. Fisher may hunch over or lean forward. Depending on the context, these changes may represent increased exertion, increased musical heaviness (metaphorically embodied as downward shifts in weight), or a shift toward the audience in a light-hearted moment of engagement. Indeed, context matters a great deal here, for, as we will see with metalcore later on, vocalists in less tongue-in-cheek styles prioritize a different, highly emotive rapport with their audiences when they lean towards them.⁵ At other times, Fisher stands upright or leans back. In conjunction with subtle forms of arm movement, as we reveal further below, these shifts from his anchor stance anticipate moments of musical climax.

One universal trait of singing is the vocalist's need to breathe, which is sometimes reflected in the regular movement of Fisher's free arm within his anchor stance. Looking closely during the verse of the *Live Cannibalism* DVD

5 While much brutal death metal is deadly serious (e.g. Hate Eternal), the transgressive extremes of other bands can involve tongue-in-cheek humor. Cannibal Corpse's violence is frequently outlandish: »I Will Kill You« (1998) depicts injecting a human heart with gasoline; »Severed Head Stoning« (2004) involves breaking a man's jaw with his wife's severed head. The over-the-top quality recalls shock-humor games like »Cards Against Humanity« or youthful games where friends try to surpass each other by imagining increasingly shocking ways to die. By contrast, violence in metalcore is generally intended to be less cartoonish and more about realistic adversaries and frustrations. The music video for Lamb of God's »Laid to Rest« (2004) is an example of the latter (Smialek 2015: 90) with metalcore conceived broadly (Smialek 2023: 281).

There is also an aspect of transgressive comedy within many death metal song intros. These can involve an irreverent and voyeuristic fascination with sexual predation as one hears in the film and television samples used by Deaden to introduce their songs. Pornographic exhibitionism functions for humor in bands like Bookakee and Zuckuss, a cavalier stance that, alongside the neighboring subgenre of pornogrind, feminist scholars have criticized as reflective of deeply privileged and patriarchal attitudes (e.g. Shadrack 2021: 23–25, DiGioia 2021: 33–34). Misogyny in deathcore is less related to shock voyeurism around serial killers and more about direct antagonism towards a personal adversary, sometimes in the context of romantic pain (e.g. Heart of a Coward's »Suffer Bitch« t-shirt, referencing lyrics from their song »Shade« (2012); see Smialek 2023: 296, n. 8).

(2000) performance, one observes that Fisher's arm subtly pumps as he takes breaths. Accordingly, this arm movement's connection to his breath becomes useful for observing breathing patterns connected to vocal phrasing. The angle of his elbow also changes, a subtler movement particular to him that we will examine more closely in the following section.

PREPARATORY MOVEMENTS THAT ANTICIPATE A MEANINGFUL MOMENT

Combining the previous observations about the expressive role of vowel formants and the stable reference of an anchor stance, we are now able to analyze more subtle aspects of expressive movements. Previously, we established a moment of intensification with how Fisher shifts the vowels within the word »blood.« Here, we note the physical gesture that accompanies that moment. Departing from his anchor stance, Fisher leans back, raises his microphone arm, and dramatically screams the word »blood« towards the ceiling (Figure 6). His change marks a memorable moment within the song that begins the chorus and recurs within it. In fact, there is an eponymous significance to this moment within the album as a whole. »Blood!« is effectively when the song title »Unleashing the Bloodthirsty« appears within the chorus, and that song title, in the same indirect way, is effectively the title track for the *Bloodthirst* (Cannibal Corpse 1999) album. One could argue that it is among the most memorable moments in the entire album.

With this significance in mind, we can use this dramatic gesture to capture some subtleties within live performance. Notably, Fisher's dramatic tilt backwards does not happen precisely as he screams »blood.« Rather, he begins part of the movement early and, in so doing, provides corporeal cues related to performer anticipation. Examining still shots from a single live performance, Cannibal Corpse's *Live Cannibalism* DVD (2000), permits for a comparison of anticipatory movements across different moments within the form of a song (Figure 6).⁶ We proceed by first observing Fisher's movements at the end of the verse, leading to the chorus.

Even though the dim lighting makes it difficult to see (Figure 6), the first photo reveals his anchor stance, as it appeared above in the fan art with the forearm at a 90° angle (Figure 5 above). As the next images in Figure 6

⁶ The relevant clip from the Live Cannibalism DVD is available here: <https://www.youtube.com/watch?v=xd9V8MWjCks> (accessed 1 May 2024).

indicate, Fisher initiates his climactic lean gesture early, prior to the dramatic »blood!« exclamation that marks the onset of the chorus. We contend that the early change of the arm gesture is not merely a physical preparation for the dramatic gesture to come on the downbeat. That is, the gesture of anticipation is not merely a practical stage movement but also an artistically expressive one. By comparison, consider the stylistic convention of building momentum with a drum fill at the end of a song section or cycle of repetition within it. At least two observations indicate that Fisher's vocals similarly build momentum toward the onset of the chorus: as shown by the boldface lyrics in Figure 7, the verse lyrics adopt an accelerating rhyme scheme at this point; they also add rhythmic density as they fill in spaces that had previously been occupied by rests or agogic durations that separated phrases (also in Figure 7). These vocal intensifications build momentum toward the chorus at the exact point where Fisher's body position changes.



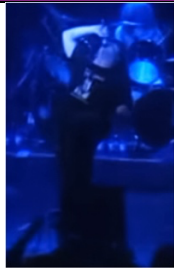
FIRST VERSE		
		
Anchor stance (0:21:44)	Anticipation (0:21:53)	Climactic Lean (0:22:03) ⁷
First Verse Lyrics		Chorus Onset
Murderers Subconscious attraction on their graves Blood will now spill Ancient bones		<i>Reform in grounds below</i> <i>Born as the blood will flow</i> <i>Killing is all they know</i> BLOOD! BLAAAAH!

Figure 6. Gestures of intensification. Left: anchor stance; middle: raised arm more up-right; right: climactic »Blood!.«

A variation of this anticipatory movement occurs in the second verse. At this point, the angle of his arm is lowered, like the live photo of Fisher's anchor stance in Figure 5 above, pointing downwards (Figure 8, left). This downward angle contrasts with the more pronounced 90° angle of Fisher's raised arm in the middle image. It is here that his position matches the momentum increase near the end of the verse and prepares for when his arm will be fully rotated with the climactic lean of his head and torso. To this point in the

⁷ The filming cuts to another camera at the onset of the chorus so this image comes from the second time the climactic »blood« scream occurs.

song, then, we have observed two separate but related gestures that both reflect Fisher's anticipation of the chorus: an early adoption of the climactic lean in the first verse and a distinct raising of his elbow and forearm angle at the same point in the second verse.

1. Mur - der - ers, Sub - con - scious at - trac - tion
2. Liv - vid beasts, Ris - ing now for re - venge

on their graves, Blood will now spill.
from their past, Hate comes a - live.

An - cient bones, Re - form in grounds be - low,
Ten - e - brous, Re - sur - rect e - vil - ones,

Accelerating rhymes fill in spaces that were previously rests or agogic accents.

Born as the blood will flow, Kill - ing is all they know,
The de - mons' time will come, Cruel - ty has just be - gun,

Blood!

Figure 7. Intensification as the end of Verse 1 builds momentum towards the onset of the chorus (at »Blood!«).



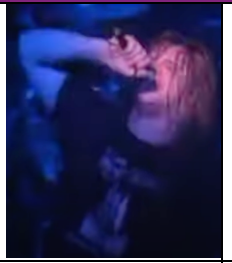

SECOND VERSE			
			
Anchor stance (0:22:23)	Arm Anticipation (0:22:25)	Lean Anticipation (0:22:27)	Climactic Lean (0:22:27)
Second Verse Lyrics			Chorus Onset
Livid beasts Rising now for revenge from the past Hate comes alive Tenebrous	<i>Resurrect evil ones</i> <i>The demons will come</i>	<i>Cruelty has just begun</i>	<i>BLOOD!</i> <i>BLAAAAH!</i>

Figure 8. Gestures of intensification. Left: lowered arm hunched; middle-left: raised arm more upright; middle-right: lean begins; right: climactic »Blood!«

This consistent anticipation is useful to observe because it reveals connections between other sections of the song with a less obviously parallel relationship than one finds between the first and second verses. Throughout the song, different sections contrast in meter and tempo, creating a distinct feel with each change: a brisk compound meter during the verse starkly contrasts with the slow, sixteenth-note groove of the chorus, compromising with a blend of both in a slower but rhythmically dense bridge. In this setting, the intensifications analyzed earlier are less obvious, with less clear gaps between phrases and without the accelerating rhymes near the end. Yet Fisher performs here with an identical arm shift and anticipatory lean as the bridge leads to the guitar solo. Despite the alterations to the tempo and meter within this distinct song section, it seems that Fisher's anticipatory movements remain consistent at analogous points in the form where momentum builds toward the onset of a high point in the song.

Taken together, we understand these three song sections and their varied instances of anticipation to be converging evidence of Fisher's capacity for convincing musical expression within his style of vocal performance. Having performed with Cannibal Corpse since 1995 and with other bands like Monstrosity (1990–1995) beforehand, Fisher is highly familiar with death metal in general and the song specifically, having performed it for decades. We contend that his anticipatory movements reflect his immersion in the rhetoric of the song, felt and expressed in performance by anticipating intensifications and responding accordingly with preparatory movements. One could object that there is a pragmatic dimension in that he is preparing for necessary action, similar to a vocalist taking a drink of water and then returning to the microphone in preparation to sing again. However, we believe his anticipatory movements are not solely practical and pragmatic. By analogy, experienced roller-coaster riders anticipate the customary initial drop during the slow, first climb. To a certain extent, one observes a similar kind of anticipation towards intensity with vocalists' movements that reflect that anticipation, which we can observe and study.

In their cognitive experiments on emotional responses to orchestral music, Meghan Goodchild, Jonathan Wild, and Stephen McAdams (2019) found a stark difference in behaviors among their participants between groups of musicians and groups of non-musicians. Musicians noticed stylistic cues in the score that indicated the impending arrival of a dramatic event. By contrast, non-musicians reacted rather than anticipated (Goodchild et al. 2019: 40–41). With this difference in mind, it seems likely that Fisher's preparatory arm motion and early body tilts are indications of this kind of musicianly listening.

EXPRESSIVE GESTURES THAT DRAMATIZE LYRICS

One advantage of analyzing »Unleashing the Bloodthirsty« is that video footage now spans multiple decades of live performances of the song. Some of the gestures available to study remain used a decade or more later, suggesting their significance within Fisher's procedural memory but also highlighting moments in the lyrical narrative that Fisher consistently dramatizes.

Take, for instance, the live performance of »Unleashing the Bloodthirsty« at Scion Rock Fest in Columbus, Ohio on March 13, 2010.⁸ Between 2:26 and 2:35 of the video clip, Fisher's gestures directly imitate the lyrics in a slightly exaggerated, theatrical way that reflects some of the more exaggerated, cartoonish violence found in Cannibal Corpse lyrics (Figure 9). To dramatize the words »vessels burst,« Fisher lifts his free arm up and forward, popping his hand open in a bursting gesture. For »torn apart,« he tenses his fingers to form claws in both hands, crossing his arms over his chest, then violently spreads his arms open and outward as though he were ripping apart his ribcage (not included in Figure 9 because this gesture finishes off camera). Finally, with the words »eat the heart,« his free hand quickly moves from his chest upwards, as though ripping out his own heart and displaying it.

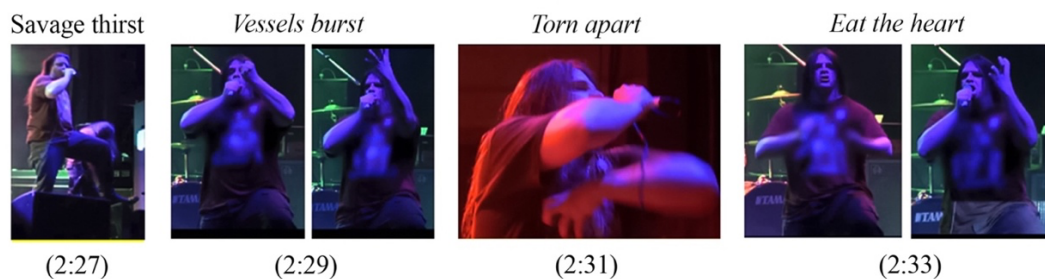


Figure 9. Gestures imitative of lyrics. Left: anchor stance. Each subsequent image: imitative gestures.

Twelve years later, in 2022, Cannibal Corpse performed »Unleashing the Bloodthirsty« at the Mercury Ballroom in Louisville, Kentucky.⁹ In this remarkably clear footage with a fixed video camera angle, one can see exactly

8 »Cannibal Corpse—Unleashing The Bloodthirsty—Live at Scion Fest 2010.« <https://www.youtube.com/watch?v=kXP3-zQ-cnM> (accessed 29 April 2024).

9 »Cannibal Corpse Unleashing The Bloodthirsty Live 3-22-22 Mercury Ballroom Louisville KY 60fps.« <https://www.youtube.com/watch?v=KrTXGWcd17s> (accessed 29 April 2024).

which imitative gestures Fisher has preserved over the decades. Both the »vessels burst« and »torn apart« gestures remain in the Louisville performance, while the »eat the heart« gesture gets omitted along with a casual slurring of the lyrics: »Eat AAAAAH!«

As to why, the above observations about climatic intensity and vowels apply and we have two instances to compare: lyrics pronounced with relative fidelity to their spoken vowels, gestured imitatively, and lyrics pronounced with altered vowels for musical reasons where Fisher no longer bothers with mimetic gestures. There seems to be a consistent pairing between clear pronunciation and mimetic gestures.

Such moments where vocalists imitate the meaning of their lyrics are most likely to occur during relatively non-demanding passages. By the time of the 2010 and 2022 live clips, Fisher had developed an ease with the song that is apparent in his stage presence. He could detach from the demands of recalling and reciting lyrics to focus instead on aspects of creative interaction with his audience, both spontaneous and ritualized. The DVD performance (Cannibal Corpse 2000) appears less relaxed—perhaps partly because of the pressure of DVD filming, perhaps because of the relative newness of the song (released in 1999). In that performance, no such mimetic gestures appear during this passage. With considerations of technical difficulty in mind, one notes that the verse sections of the song are even faster, with more condensed lyrics to deliver. One is unlikely to find mimetic gestures in those moments where a vocalist must concentrate on technical challenges.

Together, these factors suggest conducive conditions for studying mimetic gestures as a window into lyrical significance. Passages that are relatively non-demanding in a technical sense offer more imitative affordance to vocalists than passages with fast, dense demands for lyrical delivery or other high demands on skill. Passages that are not demanding, then, are promising for using mimetic gestures to study lyrical narratives. Gestures that act out lyrics, especially consistently across performances, offer more of an indication that the performer's sense of the lyrics is direct or literal rather than impressionistic or abstract. They may likewise offer some consistency that contributes to the impression of a linear narrative across the song's lyrics rather than a diffuse, poetic one that involves non-linear timelines or storylines. We raise these possibilities not just with hermeneutic exploration in mind but also because many fans, critics, and scholars are concerned with the sociopolitical implications of artistic intent. While acknowledging the inevitable complexity and uncertainty involved in such matters, it may be useful to deliberately focus on mimetic gestures during

relatively easy moments for a vocalist to perform. In other words, consider a performer's cognitive thresholds, which will limit gestural creativity to less mentally taxing passages, at least ones that do not demand full concentration merely to meet their technical demands.

Revisiting »My Funeral« at this point allows for a demonstration of gestural word painting, a creative practice that one can broadly find in numerous vocal traditions. With Renaissance madrigals, pop songs, and black metal alike, one commonly finds vocalists adding special expression to the words »high« and »low.« In pitched singing, a singer may add madrigalisms or word painting by leaping to the peak of their range on the word »high« or descending to a bass note for the word »low.« In an inharmonic style, such as black metal vocals, a similar kind of inharmonic madrigalism is possible. The formant frequency of vowels takes on the word-painting role as the vocalist sacrifices lyrical intelligibility for the expressive potential of vowels.

Figure 11 returns to Dark Funeral's 2015 Bucharest concert, showing Vingbäck outstretched and gesturing upwards in one image and pointing forward in the other. The stances are strikingly comparable to Fisher's previous ones: a climactic lean and a foot position similar to Fisher's anchor stance. As with Fisher before, Vingbäck's two poses respectively represent opposite expressive poles of intensification and heaviness. The word-painting aspect relates to how the upwards reach occurs with the lyrics »Hold my head *high*« (at 4:25) and how the downwards pointing gesture and slight crouch happens with the words »Evil ones that lurk down *below*« (at 2:00). A chain of signifiers can be traced here: a literal embodiment of holding one's head upwards + connotations of pride/striving/reaching/confidence + spatial metaphors for sound (i.e. high frequencies) + acoustical properties of vowel formants (i.e. the high formant frequencies in [a] at the start of »high« [hai]). The opposite chain: a literal embodiment of hunching over and pointing below + a theological relegation of evil to the *underworld* + connotations of deviousness with lurking + low formant qualities heard throughout the entire phrase, which we will elaborate upon.

While comparing the vocal delivery of these two moments, one may hear a generally high quality to the »Hold my head *high*« lyrics and low quality to the vocalization of »Evil ones that lurk down below,« as they depict strident intensity and menacing evil, respectively. What is useful to note here is how each phrase ends with a sustained vowel that adds to the word painting. At the end of the first phrase, the contrasting vowels between »head« and »high« create an ascending leap in F1 frequency from [ɛ] to [a] (Figure 10), sustaining the higher of the two vowels. By contrast, during the second, low

phrase, a dramatic drop in F2 frequency occurs as the contrasting vowels between »be-« and »-low« glide downwards from [i] to a long sustained [o].

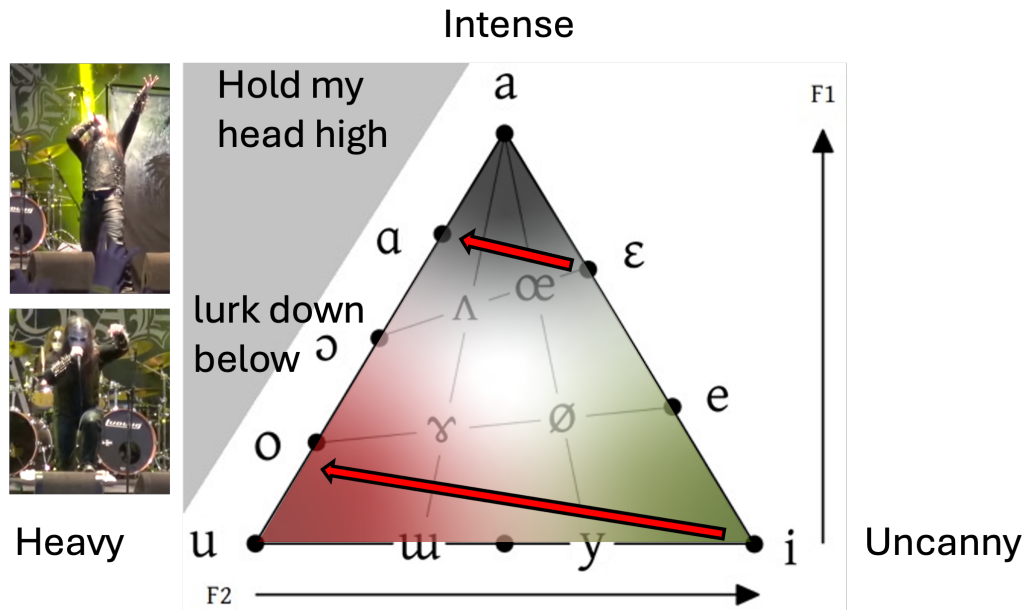


Figure 10. Word painting with vowel formant frequencies and mimetic gestures in a live performance of Dark Funeral's »My Funeral.«

Taken together, these two examples from different subgenres of extreme metal illustrate how mimetic gestures can be applied to the study of musical expression to varied ends. The Cannibal Corpse example is one of enduring ritual, whereby the vocalist repeats his mimetic gestures over several years of performances. It provides a consistent set of staged lyrical enactments that, at least within performance contexts that are not prohibitively demanding (too fast or dense with lyrics), can be looked to by critics and analysts concerned with hermeneutics and narrative theory. In other words, one can use these consistent gestures to more confidently infer that a vocalist has a literal, or at least theatrical, interpretation of the lyrics in mind during performance. While a complete examination of all the confounding variables involved in such an inference is beyond the scope of this article, we at least see the potential for gestures to be applied this way in broader, inductive studies of lyrical meaning.

The Dark Funeral example shows not only that word-painting traditions carry over into black metal but also that vocal word painting does not need to be melodic. The clear upwards and downwards gestures that mapped onto the corresponding lyrics also mapped onto more connotative meanings. In so doing, the vocalist drew upon expressive resources within black metal that are roughly analogous to melodic high and low points, namely

the expressive potential of high and low vowel formant frequencies, sometimes inherent in the phonemes within the lyrics, sometimes altered at the expense of intelligibility. As with all word-painting contexts, this example involves a clever blend of the poetic word and its musical realization so that lyrical intelligibility and expressive vowels work together and are visually brought to life on the stage with gestures.

GENRE-SPECIFIC STAGE MANNERISMS: THE »BLACK METAL CROON« AND THE »METALCORE CROUCH«

In his reception study of genre descriptors within online fan reviews, Smialek (2015: 121) compared descriptive adjectives between black metal and death metal, which revealed several descriptions that accord with black metal's general reputation, such as »dark,« »atmospheric,« and »cold« (Figure 11). Other terms, however, may be less obvious to anyone unfamiliar with this music personally, such as »melodic,« »epic,« and »beautiful.« Still others occurred with less frequency and addressed a rather sensual interpretation of black metal: »haunting,« »slow,« »pure,« »simple,« and »emotion.« This aspect of the genre, which may be less obvious to non-fans than its more aggressive and abrasive features (Hagen 2011; Reyes 2013), can be readily observed by studying the mannerisms of black metal vocalists during key moments of on-stage performance.

One such example comes from a live performance of »Reptile« by Dimmu Borgir at Harpos Concert Theatre in Detroit, Michigan, on September 11th, 1999. In the still frame of the performance given in Figure 12, vocalist Stian »Shagrath« Thoresen's (bottom right) mannerisms bear a striking resemblance to folk singer Cara Dillon (top right) and two stock photos of singers.

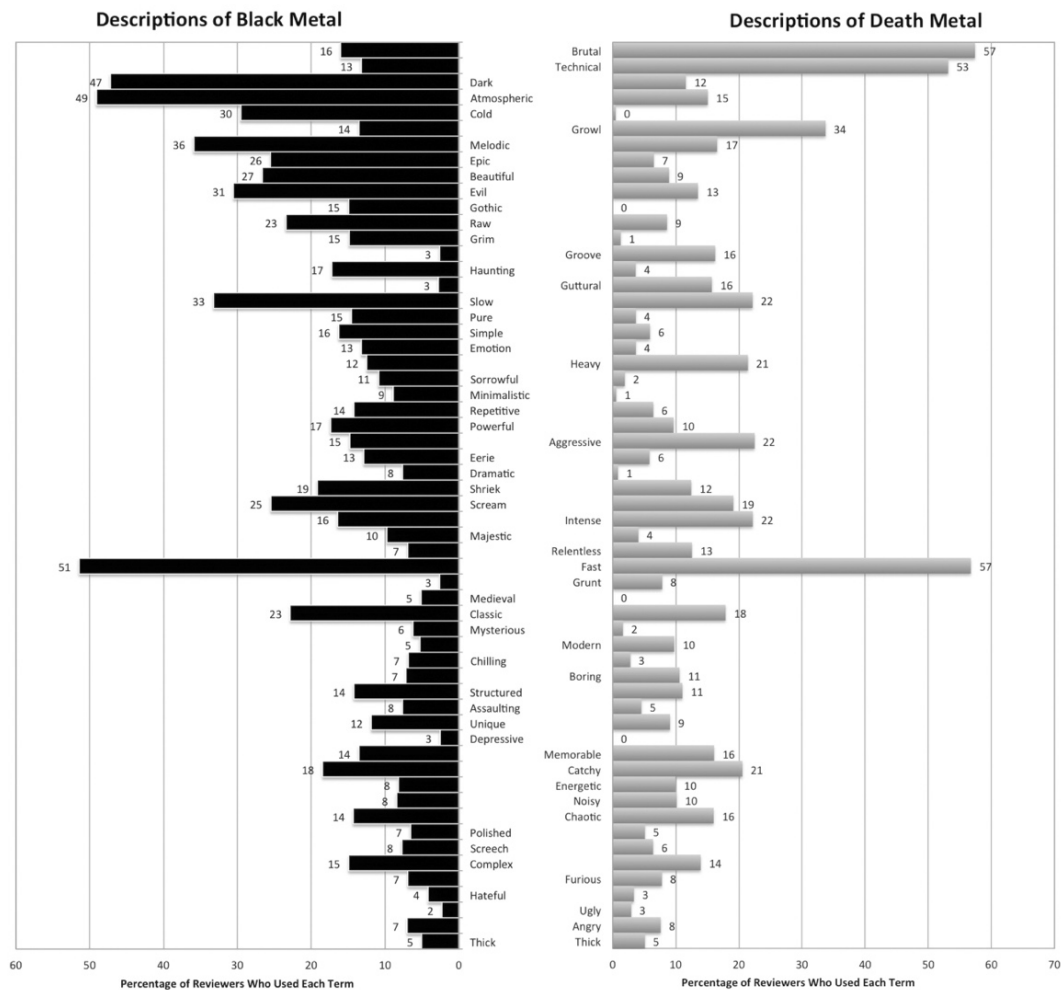


Figure 11. Comparison of fan descriptions for black and death metal, from Smialek (2015: 121).

Like the three other images, Thorsen appears equally transfixed in a moment of heartfelt emotion, focusing inwards with eyes closed, still, and cradling the microphone while carefully shaping a sound. Unlike the others, however, his vocals involve the gritty, inharmonic sounds of black metal yet seem to be embodied in an analogously gentle way. Thorsen's eyebrows are not as obviously upturned with vulnerability and sincerity, but the rest of his posture seems to occupy that general emotive vicinity.



Figure 12. A black-metal vocalist (bottom-right) compared with Google Images results for »singer eyes closed.«¹⁰

Some musical and lyrical contexts may clarify why this delicate expression makes sense. The line he performs—»Bastards in the shape of angels, holding my hands/Passing me what's left of the wine«—is filled with sensual imagery appropriate to a Satanic ceremony, in classic black metal tradition (Hillier 2020, 10). Wine, with its connotations of sophistication, richness, intoxication, and romance, is received. Touch is depicted in an almost nurturing way with the kind of stillness that soothes a lover or guides a child. All this is narrated from the point of view of submission to the sublime, a sense of awe towards these supernatural beings, and terror implicit in the corrupted manner of their description.

Musically, Thoresen delivers these lyrics with black metal vocals but only after they have been first sung by the more overtly emotive tenor voice of Dimmu Borgir's other vocalist (and bass player) Simen Hestnæs (pseud. ICS Vortex). Throughout the albums where Hestnæs appears, he is often used as a strident, heroic voice that stylistically and emotively extends the song with a contrasting, sung counterpart to Thoresen labeled »clean vocals« over his lyrics within the liner notes. What is notable here is how Thoresen not only repeats Hestnæs' part but also partially overlaps with it, connecting his

¹⁰ Figures displayed: top-left (stock image of male singer); top-right (Cara Dillon); bottom-left (Cliff Richard); bottom-right (Shagrath of Dimmu Borgir in a live performance of their song »Reptile«, screenshot at 4:44): <https://www.youtube.com/watch?v=eA6wDbs7ooc> (all accessed on 1 May 2024, most links are no longer accessible and have therefore been removed).

black metal vocals expressively with Hestnæs' clean singing and the eerie chromaticism it affords. It is one such example, among many (Smialek 2015, 209–11, 278–81), where an unpitched style of metal vocals contextually borrows from pitched melodies, implicitly taking on their expressive resources. The physical mannerisms exhibited by Thoresen add a visual dimension of clarity to that stylized expressiveness.

The subgenre name, *symphonic* black metal, evokes a host of associations one might pair with the nineteenth-century romantic symphony orchestra: lush, expansive, sensual, romantic, etc. Indeed, this defining characteristic of theatricality, sought by the expansive resources of hi-fi music production (Smialek 2015: 148–149; Hillier 2020: 10) and extended instrumentation such as keyboards and sometimes hired orchestras, distinguishes symphonic black metal from its equally theatrical counterpart of lo-fi, minimalist, *raw* black metal (Hagen 2011; Reyes 2013). The mannerism we have analyzed above, what we may nickname the »black metal croon,« we might expect to appear more frequently in symphonic black metal than its raw counterpart. Such subtle but observable mannerisms are a useful way to tease apart the nuanced distinctions between musical expression at this level of subgenre division. In this way, physical movements can extend the existing evidence of these genre features previously studied by Smialek (2015: 116–24), Ross Hagen (2011), and Ian Reyes (2013).

Stage mannerisms can also be useful for discerning information about performance techniques and genre-specific ideals of authenticity. For instance, with hardcore and metalcore vocalists, one can often see signs of visible exertion on their faces during vocal performance. Some metalcore vocalists are red in the face from strain. At other times, they reveal visibly strained neck tendons and vein protrusion in their face and neck (Figure 13). Such strain is not present with the less forceful airflow of inhaled vocals (Smialek 2015: 242–43; Wallmark 2018: 73). Accordingly, we can infer that vocalists who show this kind of strain in their faces and neck are likely using a more forceful, exhaled delivery.

Such intense effort and strain parallels notions of punk authenticity within hardcore and metalcore vocals. As Marcus Erbe has argued within a chapter on deathcore narratives about male romantic frustration, authenticity within hybrid genres of metal and punk centers on »personal experience and serious soul searching« (Erbe 2016: 188). In a comparable way to folk singers and singer-songwriters, the deathcore vocalists Erbe interviewed stressed the importance of autobiography in song, an honest expression of their thoughts and feelings in the lyrical narratives, in their cases around romantic hurt.



Figure 13. Images from a Google image search for »metalcore vocalist« showing visible neck tendons and veins.¹¹

When these narratives are dramatized in vocal performance, the vocalist's body communicates that idealized emotional intensity so that both the resulting sound and visual appearance are compelling to audiences. Hence, there are visible signs of exertion in facial redness, protruding veins, and visible neck tendons. What is more, metalcore vocalists embody this intensity alongside additional stage mannerisms that promote feelings of relatability (Figure 14). Again, like folk singers, metalcore vocalists combine a sense of lyrical directness with an aura of relatable approachability that minimizes the literal and figurative distance between the audience and the performer. Thus, one finds metalcore vocalists crouching near the front of the stage, nose crinkled, and eyes squinted with intensity, jaw wide-open, with one hand gripping the microphone right at the end, pushed against their face, in a combined display of emotional intensity and intimacy with the audience. In this way, the »metalcore crouch,« as we call it, embodies several kinds of authenticity that popular music scholars have theorized: Allan F. Moore's (2007, 211-14) »first-person« authenticity, their strain indicating that their autobiographical personhood is invested in the lyrical subject matter, and Keir

¹¹ Order top left, top right, bottom left, bottom right: Kyle Pavone of We Came As Romans; Jacob Bannon of Converge; Oliver Sykes of Bring Me The Horizon; Alex Varkatzas of Atreyu (all accessed on 1 May 2024, links are no longer accessible and have therefore been removed).

Keightley's (2001, 137) »romantic authenticity,« their proximity to the stage showing a prioritization of community, populism, sincerity, and directness.



Figure 14. The »metalcore crouch.« Center: fan artwork of the metalcore band Converge; outer images: photos from a Google image search for »metalcore vocalist live.«¹²

DISCUSSION AND CONCLUSION

Throughout our analysis of vocalist's movements in extreme metal performance, we used varying levels of generality to uncover various applications for our observations. Certain aspects of vocalist movements are either universal or near-universal in their applicability to everyone. The need to breathe, for instance, is a clear example that restricts the types of movements that vocalists can make. This is evident, and useful, in the way that vocalists' movements sometimes mirror breath patterns and phrasing. Although it was not a primary focus during this article, we note that Fisher of Cannibal Corpse synchronizes his arm movements with his breathing, sometimes reflecting musical meter. Cognitive thresholds are similarly universal.

¹² Order top left, top right, bottom left, bottom right: Oliver Sykes of Bring Me The Horizon; Judd Wrighton of The Ocean Between Us; Mike Hranica of The Devil Wears Prada; Tatiana Shmayluk of Jinjer (all accessed on 1 May 2024, links are no longer accessible and have therefore been removed).

To varying degrees, challenging performance demands will restrict any vocalist's freedom to improvise or creatively express different aspects of gestures, leading them to return to an anchor stance of stability rather than creatively varying their gestures. Certain sections, such as verses, typically contain more lyrics than others like the chorus. Accordingly, unless a vocalist is especially invested in narrating a verse with imitative gestures, one might expect to encounter fewer such gestures in those portions of the song. More examples would be needed to provide conclusive evidence to support and generalize this observation, but as a hypothesis, it may eventually serve as a principle for guiding hermeneutic analyses of lyrical meaning, especially as they pertain to vocalist intent.

Shifting one step further in detail along our levels of generality, vocalist movements also shed light on aspects of genre. Certain gestures, mannerisms, and postures vocalists make are genre-specific and can provide insight into meaning within those genres. We have given nicknames to some of these movements in our analysis, such as the »black metal croon.« Perhaps surprisingly, given black metal's abrasive sound and extreme visuals, this mannerism is characterized by a relaxed and calm mood, as well as sensuality. It involves carefully refining and shaping the sound, often through inhaled vocals that gradually sculpt the airflow and resulting sound. Another genre-specific mannerism we observed was the »metalcore crouch.« This mannerism involves the vocalist moving closer to the audience at the front of the stage while also displaying intense emotion through facial and neck strain, a visible and significant force with exhaled vocals. The desire for close proximity with fans and a forceful display of emotion together reflect a particular punk-derived ideal of authenticity specific to metalcore and quite distinct from the supernatural lyrical themes of black metal and much death metal. These genre-specific mannerisms thus provide more evidence for scholars interested in revealing broad distinctions between the kinds of authenticity ideals that fans and musicians variously construct according to separate performance traditions.

Further still along the narrowing levels of generality, individual vocalists also exhibit idiosyncratic movements that are worth observing. For instance, Fisher prominently extends his arm at the angle of his elbow, occasionally moving in synchrony with his breathing in ways that reflect anticipation. That provides insights into aspects specific to a song—our final and most detailed level of generality—and aids in analyzing individual performances, such as how a vocalist might experience that song. We have argued that it reflects a musicianly experience of anticipation, which provides a window not only

into Fisher's skill as a musician but also into the stylistic codes of songwriting within metal (and rock traditions more broadly).

There are several limitations to our exploratory analysis. Due to space constraints, we chose to limit the number of case studies to go into greater detail. We selected examples for which we have a close familiarity to facilitate insights. Our intent is not to promote metal canons but to draw from widely recognizable samples that reflect widespread conventions. One obvious shortcoming and desideratum is that only one of the examples we analyzed includes women, and only does so in a minor capacity. This raises the question of who should be considered representative of the different genres when analyzing genre-specific mannerism. Within melodic death metal, for instance, Arch Enemy's Angela Gossow and Alissa White-Gluz provide high-profile examples for further research that have been widely influential for a new generation of female metal fans and vocalists. Some relevant research is currently emerging, such as Lori Burns' detailed case study of Tatiana Shmayluk, vocalist of the Ukrainian metalcore band Jinjer (Burns 2023). At the same time, some fundamental unknowns remain about how women's practices compare with male vocalists in extreme metal, including the study of physical gestures, stage mannerisms, and movements. While we expect there to be considerable overlap, it would nevertheless be intriguing to explore potential differences. While research on the voice in metal has proliferated in the past half-decade and made significant progress in both scope and sophistication, there are still numerous avenues to explore, especially concerning developing our awareness of stage presence and vocalist movements.

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