ARTICULATING CONTINUUMS:
GESTURAL ANALYSIS OF WORKS BY STEVEN MACKEY, STRAVINSKY,
BRAHMS, AND MOZART

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Notice: This essay and the composition “Electric Guitar Concerto” together
constitute the dissertation but are otherwise unrelated.
ABSTRACT

This dissertation seeks to bring resonance and clarity to the notion of “gesture” as applied in music-analytic discourse. Exploring the element of *continuity* in sounding musical gestures, as first outlined by Robert S. Hatten, I describe the action that signifies strong gestural content in a musical moment or work as one in which musical continuums are articulated. To clarify musical gesture, I seek to clarify the role of continuums in theoretical discussions of musical parameters such as pitch, rhythm, harmony, dynamics, and events. All musical passages might be construed as “gestural” to some extent by virtue of the continuums embedded within musical elements; the relevant question becomes, when is a gestural perspective most revealing? What fresh insights can be found by translating musical parameters into the language of gesture? I seek to illuminate these questions in four case studies of music by Steven Mackey, Igor Stravinsky, Johannes Brahms, and Wolfgang Amadeus Mozart. By analyzing music that progresses backwards in historical time, I hope to show that gesture is a perspective relevant to contemporary music that nonetheless contains the capacity to create fresh re-hearings of older works, and can connect our musical present to its past.
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Introduction:

Gesture as a “Continuum Centric” Analytic Lens

Research on music and gesture abounds. In the past ten years, two dominant strands have emerged. One line of inquiry begins with concerns of the *musical body*, resonating with broader critical contemporary research on the body as a site of multivalent communicative acts. The second area of inquiry interrelates the study of cognitive science and musical perception, seeking quantitative results from links between, for example, a conductor’s or string quartet’s stage movements and the sounding result, much as a linguist might study the muscular movement of the mouth to gather data about language.¹

This dissertation seeks to further a different line of inquiry: what insights can the notions of “gesture” and “gestural” provide in the technical analysis of music, on the level of note, measure, phrase, section, movement, or work? How can “gesture” become a piece of useful vocabulary in a musical-analytic context, and how might such vocabulary enlighten events in music, contemplated during or after listening, with or without a score,

¹ For excellent examples of the first approach, see Doğantan-Dack, Mine, “In the Beginning was Gesture: Piano Touch and the Phenomenology of the Performing Body,” in *New Perspectives on Music and Gesture*, ed. Anthony Gritten et al. (Burlington: Ashgate Publishing Company, 2011), or Levitz, Tamara, “The Chosen One’s Choice,” in *Beyond Structural Listening? Postmodern Modes of Hearing*, ed. Andrew Dell’Antonio (Berkeley: University of California Press, 2004). For examples of the second, see essays by Geoff Luck and Lawrence Zbikowski in Gritten, 2011. Princeton Graduate Fellow Troy Herion is also currently conducting work in this area through an investigation of “visual music.”
by a musician of relatively high literacy (such as, for example, Lerhadl and Jackendoff’s “experienced listener”)?

My goal, in short, is to refine the notion of gesture so as to be useful in the extensive grammar of conceptualization employed in music analysis. As a project pertaining to such a piece of grammar, this inquiry is in some ways relevant to the field of music theory. Theories have a grammar; acts of analysis employ that grammar to tell stories about certain musical moments or works. I seek to add a more specific connotation to the word “gesture”, much as the words “chord”, “harmony”, “structural downbeat”, “escape tone”, “E-flat Major”, or “phrase” connote a rich array of musical concepts, moments, events, and experiences. Such connotations, when summoned by specific words, can be projected onto an encounter with a new musical experience.

The bulk of this dissertation concerns exactly this process: accumulating rich connotations to the word “gesture”, and carrying these perceptions through a series of analytic encounters with music. These analyses are results of a framework that incorporates “gesture” and “gestural” as essential pieces of grammar. By “musical analysis” I mean the activity of creating an understanding about some essential content of a work or section of a work, as mediated through its technical structure, as outlined by

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2 This question has previously been framed and explored to some extent in Robert S. Hatten, *Interpreting Musical Gestures, Topics, and Tropes* (Bloomington: Indiana University Press, 2004). Hatten’s wide-ranging volume offers multiple approaches to music and gesture, of which “purely musical” gesture is one. My approach differs from Hatten’s in its singular focus on sounding musical gestures, mostly unhinged from questions of period idiom or performative quality.

3 For an in-depth study of the structure of theories in general and music theories in particular, see Chapter 3 of Lawrence Zbikowski, *Conceptualizing Music: Cognitive Structure, Theory, and Analysis* (Oxford: Oxford University Press, 2009). In Zbikowski’s terms, we can imagine our task as developing a theory of “musical gesture” to solve certain conceptual problems that arise in acts of music analysis.
Kofi Agawu in “How We Got Out of Analysis and How to Get Back In Again.” Quoting Ian Bent, Agawu writes that, “Music analysis is that part of the study of music which takes as its starting point the music itself rather than external factors.”⁴ In his own words, Agawu writes, “analysis is ideally permanently open, [is] dynamic and on-going, [is] subject only to provisional closure.” Further, “there is…no final state to hearing, only the latest one.”⁵ Agawu also asserts that analysis can aid in discerning something of a work’s “truth content”, which I take to mean an essential existential quality or communicative concern of a work. It is towards this interpretive, open-ended, hearing enhancing, truth-content seeking activity that this work leans. Just as Steve Mackey’s “Dreamhouse”, Stravinsky’s “Agon”, Brahms’ “String Quintet”, and Mozart’s “Symphony no. 41” can be performed and listened to over and over, they can be analyzed time and again providing new insights, while in each instance revealing something essential. Here, insights will primarily pertain to gesture, with the goal of not only showing the usefulness of the concept, but also of bringing the reader back to the music with refreshed ears.

In his book “Interpreting Musical Gestures, Topics, and Tropes”, Robert S. Hatten offers a “preliminary list of perspectives on the concept of musical gesture”.⁷ Hatten’s twelve points contain the seeds of many of the ideas explored in the subsequent volumes

⁵ Ibid, 270-271.
⁶ Ibid, 271. Agawu acknowledges that it is generally agreed that analysis is an aid to perception, while it may be controversial to claim that analysis is an act of accessing truth content. I endorse both sides of Agawu’s argument: that analysis opens our ears, and that it can also succeed at elucidating the “excess” richness of works of art, an excess that helps them endure and is a part of their communicative “truth”.
⁷ Hatten, Interpreting Musical Gestures, Topics, and Tropes, 93.
of essays based on his work, “Music and Gesture” and “New Perspectives on Music and Gesture.” Relatively unexplored by other authors is his seventh perspective on musical gesture:

“7. When gestures encompass more than one musical event (a note, a chord, even a rest), they provide a nuanced continuity that binds together otherwise separate musical events into a continuous whole. Continuity in this sense is not equivalent to continuously sounding (as in legato); a discontinuous sequence of sounds (e.g. sounds separated by rests) may nonetheless be linked by a continuous thread of intentional and significant movement.”

The notion of gesture offers a continuum-centric view of musical parameters, and by doing so departs from theories that structure music (harmonies and rhythms in particular) as points. Much of our musical-theoretical vocabulary tends towards emphasizing points of connection, rather than elucidating ways of connecting and how those ways communicate. Gesture is a useful and flexible concept for orienting musical discourse towards connectedness and communication, emphasizing “harmonic motion” over “harmony”, “forming” over “form”, and “phrasing” over “phrase types”. In this sense, “gesture” might restore an “analog” notion of musical structure to the forefront of musical discourse, superceding “digital” understandings of isolated musical phenomena.

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8 Hatten, *Interpreting Musical Gestures, Topics, and Tropes*, 94.
9 I take the “analog” metaphor further by claiming that “gestural analysis” is a fundamentally humanistic approach in the concluding chapter.
Gestures in music can be thought of as *events that articulate continuums*. When we gesture to accompany speech, for example, we might move a hand through the air, articulating (moving through) a space continuum with it, and also a time continuum from when the gesture started to when it ended: the motion is what communicates, rather than any specific points in space or time. Music is full of parameters that can be thought of as continuums: time, pitch, dynamics, melodic shapes. When such continuums are brought to the fore of perception, I believe we can, and in many cases already do, speak of such moments as “gestural.”

Take, for example, the use of the dynamic marking *sfp* in some of Beethoven’s String Quartets. One expressive mark demands that the performers transmit a sound that *leaps across a continuum* of dynamics, from loud to soft almost at once. Dynamics, of course, exist in a relational continuum: there is no set decibel level for *mezzo-forte*. Beethoven’s *sfp* articulates this continuum in an instant. Because of this, we hear bars like these, the re-iterated cadence of the second theme of Opus 59 No. 1, as gestural. The accumulating energy of the *sfp* gestures combines with the canonic build of material to create a push and pull of momentum leading into the tonal confirmation.

![Figure i: Beethoven, Opus 59 no. 1, Bars 67-71](image)
Or, consider the uses of glissando in Ravel’s “Daphnis et Chloe”. In a glissando, the full continuum of non-tempered pitch is sounded between given poles of pitch. Even-tempered pitch space is a series of points with more or less precise frequencies attached; the continuum between such points is articulated with the glissando. This passage towards the end of Ravel’s work, employing unison violins, violas, cellos, and basses, sounds gestural. As with the Beethoven, the physical motions that the players need to execute such sounds might serve as a re-enforcement of a gestural hearing of the music. The glissando is accompanied by a sweep in dynamics; here both pitch and dynamic continuums are articulated.

The notion of “continuum” need not be so literal in its relevance to specific musical parameters. For example, a gesture may articulate a continuum of possible perceptual relationships. We can think of each of the three opening phrases of “Tristan

FIGURE ii: Ravel, “Daphnis et Chloé”, page 268
und Isolde” as beginning with the same gesture, an upward leap. Leaps are, in and of themselves, somewhat gestural: they cross an implicit continuum of pitch space, while not articulating the pitch continuum explicitly. Further, as each phrase begins anew, the listener perceives a continuum of related events, unfolding in time, reflecting relationally backwards and projecting forwards. This perception happens despite the fact that each instance of the gesture is somewhat different, unfolding on different pitch levels and outlining once a minor sixth and twice a major sixth. The rhythm of the third gesture is also expanded.

FIGURE iii: The Opening “Gesture” of Tristan und Isolde, “repeated” twice

All three above examples make clear that any conceptual continuum in music depends on a more fundamental one: the time continuum. Obvious as it may be, without the elapsing of musical time, there could be no perception of crossing a dynamic or pitch continuum, nor could there be any perception of a series of related events unfolding and gesturing towards and back to each other. Recognizing this, many analytical journeys in the following chapters take time and rhythm as points of departure, using rhythmic displacement or metrical and accentual irregularity to begin a discussion of a musical time continuum. When a musical gesture is displaced, whether a hemiola in Mozart or a rhythmic pattern in Stravinsky, strict poles of strong and weak beats can perceptually give way to a continuum of relational and relative accents. Any study of musical gesture
is to some extent the study of the cumulative effects of elapsed time, and as such touches on some of music’s most difficult and tangled questions.

What is not a “gesture” in music? There are two answers I would provide to this question, one simple, and one somewhat more involved. The simple answer would be another question: what is not a “phrase” in music? It is, of course, very difficult to provide any specific musical example that categorically could not be considered a phrase, and so with “gesture”. The difficulty lies in the desired level of parsing. A phrase might be two beats, two bars, or two sixteen bar sections, depending on what is useful to conceptualize for the musician (the “useful level”, in cognitive science terms\textsuperscript{10}). The same goes for gestures: they might be a single beat, a series of bars, or longer. Further, I will speak of notions such as “gestural harmony”, which articulates motion forward and backwards across perceptual continuums within an entire piece. I hope to show that the broadness of “gesture” as a category does not necessarily impede its usefulness. Rather, it is a bit of music theoretical grammar than does not tend towards reduction; its open character is suited to the open and interpretive quality of analysis.

A more in-depth answer to the question of “what is not a gesture” is as follows: all musical events could be heard to articulate some kind of continuum. A gestural analysis is one that brings the aspect of continuums to the fore. Musical events are made up of many different parameters and aspects, and some or many of those aspects might be considered in light of continuums; it follows that all musical events are gestural to some degree or another. The better questions might be: what is it that a uniquely gestural

\textsuperscript{10} Zbikoski, Conceptualizing Music: Cognitive Structure, Theory, and Analysis, 32.
analysis can tell us about a given musical event? Can we formalize what we mean when we speak of gesture in a given passage of music, and is it useful to do so? What are the aspects of a given musical event that yield to being spoken of in terms of continuums?

An analysis of the first four bars of Mozart’s Piano Sonata in A minor, K.310 might begin by noting that they constitute the opening of a sentence phrase structure, the harmony alternating from i to V7 each bar over a tonic pedal, and the melody containing a dotted rhythm that invokes a march topic.

FIGURE iv: Mozart, K310

From here, a gestural analysis might note the increased momentum of the melody in beats 3 and 4 of bar 3. Each sixteenth note in the scale is filled in, as the same “gesture” as the end of bar 1 grows in intensity. A similar gestural intensification might be heard to connect the rising D-B pick-up to bar 3 with the earlier D-sharp grace note pick-up to the first melody note in bar 1.

FIGURE v
The two gestural intensifications can be heard as related. The G-sharp in the melody in bar 2 is a leading tone in a V7 harmony, and the leapt-to D in beat 4 is the 7th. Both melodic notes remain unresolved for a number of beats, the G-sharp does not resolve up to A until the very end of bar 3, and the D does not resolve down to C until the 4th beat of bar 3. These melodic “tendency tones”, leading tone and seventh, resolve in the gesturally intensified cascade. Both the G-sharp and D are leapt from, projecting their strong tendency to resolve forward into the momentum of the next bar.

![FIGURE vi: Delayed melodic resolutions as propulsion for gesture expansions](image)

A gestural hearing, rather than hearing two blocks of two measures, or hearing oscillations from i to V7, focuses on teasing out the continuum that connects the cascade at the end of bar 3 to the end of bar 1, and the unresolved melodic dissonances that hold through bar 2 into the end of bar 3 to enforce the cascade. These expansions relate to each other to create a wholly gestural phrase, one that articulates a perceptual continuum between related events.

In the following four chapters I will explore such readings in depth pertaining to passages in Steve Mackey’s “Dreamhouse”, Stravinsky’s “Agon”, Brahms’ “String Quintet Opus 111”, and Mozart’s “Symphony no. 41”. The works examined progress backwards in time in part because I believe that gesture is key to understanding much
contemporary music, with its vocabulary of leaps, odd grooves, special effects, dynamic contrasts, hard-to-read harmonies, and generic references. But I also seek to illuminate the ways in which new music can make older, familiar music fresh again, by attuning perception to aspects that might feature more predominantly now. In this way my work seeks to articulate its own continuum from present to past in Western Art Music, gesturing between works separated in composition by hundreds of years but united in our omnivorous present moment.
Chapter 1:

Explore Freely: Rhythmically Displaced Gesture Recurrence in the first part of Steven Mackey’s “Dreamhouse”

“35 years ago in a Guitar Player magazine interview, B.B. King said something to the effect of, ‘The blues is a feeling not a scale.’ In fact, I heard that chestnut in many forms from many musicians and regarded it, at the time, as poetic and metaphorical. Over the years I’ve come to understand it as being technically apt…Pitch, pitch inflection, rhythm and tone color are inseparable aspects of a projected emotional gesture.”

- Steven Mackey

This observation about the blues — that an idealized understanding of its separate elements fails to address an essential and cumulative gestural quality — resonates with Steven Mackey’s own thematic inventions. Mackey’s thoughts come not only from formal musical study, but also from an electric guitarist’s muscle memory and deep bank of bluesy jams performed and remembered. A composer fluent in all manner of American modernist pitch manipulation as well as extended tonality and modality, Mackey nonetheless insists that the project of finding the next note be more holistic: “It is only the right note if I find the right rhythm, timbre and attitude”\(^\text{12}\), that is, the right gesture.

In the opening of “Part 1: From Above”, the first movement of Mackey’s 2003 “Dreamhouse” for orchestra, Synergy Vocals, vocal soloist Rindie Eckert, and Catch

\(^{11}\) Steven Mackey, “Memoir of a Mutt” (paper presented at Berkley University, Berkeley, California, October 2008).

\(^{12}\) Mackey, “Memoir of a Mutt”, 19.
Electric Guitar Quartet, a series of gestures develops from the harps and percussion to Eckert, and then from Eckert to the electric guitars.

FIGURE 1.1: “Dreamhouse”, bars 7-18.
Dreamhouse by Steven Mackey and Eckert Rindie
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We might think of a gesture in music as an intentional coalescing of musical parameters within a fixed temporal continuum. A gesture articulates a web of relationships between pitch, direction, rhythm, meter, timbre, inflection, articulation, and dynamics within a parse-able section of musical time. Intent speaks of subjective desire to communicate. Systems and patterns can also be designed to create a coalescing of musical parameters (as in serialist, minimalist, aleatoric techniques), but these are events that speak more of magic, nature, or the transcendent. Gestures have subjects; they have the “I find” and “attitude” from Mackey’s quote as well as the “rhythm” and “timbre.”

Over these twelve bars of “Dreamhouse” musical elements coalesce before our ears. The first gesture is a faltering rhythmic timbre trill of three pitch classes (D C B-flat) in an out-of-tempo “sluggish” bar 7; these same pitch classes find an order, direction, rhythm, octave, voice, and text in the immediately following “A tempo” bars. The vocal line, in high register and solo but for diminuendo-ing open strings in the cellos, floats above a vast, open musical space, painting the words, “Town and houses as seen from above.” As the theme is fixed in a few gestures, we also learn a little about the subjective presence: his relative position to what he is viewing.

The question of how timbre, inflection, and orchestration coalesce to articulate and develop the same theme (pitch, direction, and rhythmic accent) in bars 13-17 in the electric guitars is complex. These bars appear fully formed, three electric guitars working together to project a single musical line, yet also giving the impression that a single line has become a three-part glow of timbre and inflection.
Harmonics and bends double and triple each thematic note. The placements of doubling and tripling not only reinforce the outline of the theme, but also an unsettled quality in its rhythm.

Rhythmically displaced gesture recurrence is prominent component of Mackey’s language. Stravinsky is perhaps chief among Mackey’s precursors and influences in utilizing rhythmic displacement in his themes, and analysts have remarked on Stravinsky’s use of that technique. Peter C. van den Toorn defines displacement as “a shift in the accentual implications of a reiterated fragment.”\textsuperscript{13} Van den Toorn cites Stravinsky’s beamed-over-barline ostinatos and melodic writing from the Rite and Oedipus Rex. In these cases, displacements of fragments have “accentual implications”

for on-beat/off-beat status, or for heard metrical placement. They impact, in other words, structural elements of the music’s rhythm.

Substituting “gesture” for “fragment”, Van den Toorn’s definition of displacement offers a useful frame for parsing metrical ambiguity in EX 2. With a nod to Van den Toorn, below is a plausible and very modest re-barring of the phrase.

This barring reflects the fact that the point of recurrence of pitch order is at odds with the accentual implications of the orchestration. Hearing the first bar as 4/4, beat 1 of the second measure is instrumentally tripled, while beat 4 of the first measure sounds alone: the downbeat is more heavily accented than its upbeat, a perceptually consonant state of affairs. The harmonics in electric guitar 1 accent the same dotted-quarter plus quarter plus eighth pattern as in the first measure; the bends in electric guitar 3 also reinforce these accents, creating a rhythm pattern that repeats measure to measure until measure three rudely interrupts.

There is no question of downbeat placement in the third measure. Here orchestral accent and pitch order recurrence align, even if the downbeat is instrumentally doubled, not tripled. As accentual factors re-align to produce a clear
downbeat, the metrical ambiguity of the previous two bars is felt with retrospective force. We know that a clear downbeat can result from an alignment of pitch order recurrence with orchestrational accent; we also know that we haven’t heard such an alignment for 7 beats. This suggests not only an unequal subdivision of those 7 beats, but also no clear way of knowing where that subdivision should be made; is it 3/4 plus 4/4 or the reverse?

While the third measure of the theme has an accentually aligned downbeat, it does further confound metrical perception by stretching the accentual dotted-quarter plus quarter plus eighth pattern from the first two measures. The second accent lasts twice as long as before, and the last eighth of the pattern, already dually implying strong and weak beats in bars 1 and 2, now accents the unclassifiable off-beat, beat 4, in a 5/4 bar. Metrical disorientation accumulates into the fourth bar, where no new information indicates whether the last quarter note begins a new bar or is an upbeat, as notated. The gesture sends a collection of mixed signals.
FIGURE 1.4: The first three bars of the theme “aligned” to show accentual recurrences

Two rhythmically displaced gesture recurrences—the shifting of the dotted-quarter plus quarter plus eighth accent pattern by one beat in the first and second bar, and the stretching out of this pattern to dotted quarter plus half note plus dotted quarter in the third bar—exert a force over perception of meter throughout the phrase. These displacements dislocate the structure of the larger gesture’s rhythm—meter, and more generally strong and weak beats—from perceptual clarity.

While Mackey’s displaced gestures create implications for perception of structural rhythm, his immersion in the electric guitar and blues suggest another, complementary, set of implications. In a blues solo, reiterated fragments are key building blocks. Take a descending three note pentatonic pattern, A G E: it might be repeated over
and over again in succession, over varying chords, in shifting rhythmic positions. Certain pitches may be held for different values upon repetition, re-attacked, expressively inflected, or left out of the pattern. When I was learning to improvise blues solos, a teacher had me first restrict my improvisations to two pitches. By limiting pitches (creating fragments) and focusing on the expressive potential of rhythmic displacements and other gestural parameters, I gradually learned the idioms.

In a blues solo, what are the implications of rhythmic displacements? In most cases, a rock-solid metrical structure is being provided during a solo by a prominent rhythm section (some combination of drums, bass, keys, rhythm guitar) or else by a regular song structure implicitly operating in the background. Thus, there is no real question of rhythmically displaced fragments creating implication for metrical structure or on-beat/off-beat considerations: these are laid virtually in stone. Unlike Stravinsky’s practice, a displaced blues solo fragment does not impact structural elements of the music’s rhythm.

Certainly, we can state the reverse: that the structure of blues rhythm has implications for the perception of a displaced fragment. Thinking of our three note pentatonic pattern A-G-E in consecutive sixteenth notes, it makes sense that these three notes “feel” different depending whether they are being pulsed by a bass drum (generically, on beats 1 or 3) or cut through by a snare (beats 2 or 4), or played on the beat or off. Our perception of the notes will be affected by the structure of the song’s rhythm, and all that accompanies it (timbre patterns, relative beat strength, etc).

If we maintain, however, that in a blues solo a displaced fragment does not change perception of metrical structure, and that metrical structure is supplied by a
drummer’s kick and snare hits, then is it fair to say that the displaced solo fragment has no implications for the drummer’s kick and snare hits? Clearly not. In fact, the drummer keeping time reacts to the shifting melody, subtly loosening or tightening the four beats, accenting some more than others, shifting emphases. This phenomenon is as real as any assured metrical structure, if not more so. The players in a real blues band listen, react, and shift to one another; a solo does not occur in a musical vacuum. The singer, having listened to the solo, might upon his entrance pick up the momentum created by the displaced phrasing, and inflect the post-solo verse differently. And so on. (Time hangs suspended for a few bars after the solo in Led Zeppelin’s “Since I’ve Been Loving You”, for instance, Jimmy Page’s thrashing rhythms having perpetuated a disruption in instrumental flow, Robert Plant’s voice wailing alone.)

Recalling that a gesture is a coalescing of musical elements in a given time, a kind of *fixing* of musical elements in space, then rhythmic displacement is a kind of *un-fixing* of gesture cohesion. In blues solos, the un-fixing of a gesture from a rhythmic space is a *mining of that gesture for further expressive potential*. It’s almost as if the soloist is going *back inside* the gesture, moving it around, moving around inside it, seeing what expression it has yet to yield. Dislocating is mining for expressive potential.

If the elements of a gesture can become unhinged from one another, then might other previously *fixed* elements in musical space also become unhinged and rendered expressive? Think here of the drummer’s kick to snare pattern, articulating a fixed metrical structure. Might rhythmic dislocations in a guitar solo create an environment where this most fixed musical structure becomes expressive, subtly expanding and
contracting with the breath of the song? Might these dislocations create musical space where a final verse, same as the first, wanders unhinged to expressive singularity?

In the guitar theme from “Part 1: From Above”, rhythmic displacements open a musical terrain where the fixed can become un-fixed and rendered expressive. Mackey’s setting of the guitar theme creates a complex web of interactions among timbre and accent by doubling each melodically prominent note with either a bend or natural harmonic. Both additions contribute timbre expressiveness: the electric guitar’s natural harmonics have a bell-like emergent quality and generally need to be articulated with a sharp attack, while bends have a moaning, vocal, behind-the-beat imperfection.

Further, the harmonics and bends also accomplish a dislocation of tuning. Natural harmonics are all slightly out of tune to our even-tempered scale, and bends pass through microtonal space en route to their targets. Besides inflecting timbre, the doubling electric guitars de-center thematic pitch frequencies, articulating instead a frequency continuum.

Fixing and un-fixing, centered and unhinged, stretched and compressed: if these actions can frame rhythmic phenomena and tuning, then they might serve as a frame for a discussion of pitch content in the first movement of “Dreamhouse” as well. In bars 8 through 10 from EX 1, we hear a descending series of whole steps, D C B-flat A-flat, spanning an augmented fourth; the most accented pitches span the major third from D to B-flat. The intervals and span suggest a whole-tone color, though the rising half-step G to A-flat tag in bar 11 undercuts descending whole-tone motion. When the guitars sound this theme in the following bars, they add a consequent gesture in bars 16-18 in EX 1, C-sharp F-sharp G F-sharp G-sharp. The rising fourth and series of half steps are also non-
whole tone intervals, though they end on the enharmonic equivalent of the antecedent phrase via whole step rise from F-sharp to G-sharp/A-flat.

FIGURE 1.5: A pitch, rhythm, and direction reduction of the theme

The perfect symmetry of the whole tone scale equalizes relationships between pitches in a similar way to the chromatic scale; it is a scale in which music can become static or stuck. In fact, the vocalist’s third phrase, “A vast static grid of houses”, is exclusively on this whole-tone portion of the theme (no tag, no consequent). Already within the theme’s pitch order there is a small un-fixing of this whole-tone world via answering gestures in half-steps and a perfect fourth.

In subsequent recurrences of theme, pitch relationships become displaced from their original values. When three others in measure 33 join the soloist’s voice, the pitch range broadens with the orchestration, its sweep expanding both upwards and downwards by a half-step.

FIGURE 1.6: The theme and its first development: stretched intervals
The theme re-fixes itself into its original pitch class and order in the immediately following bars, a solo trumpet wafting above guitars now augmented with percussion and solo viola. In the next statement of the theme, the vocal soloist and guitars sound together for the first time. The pitch classes from the consequent phrase F-sharp, G, A-flat, and C-sharp are here displaced into the opening part of the theme, with the result that prominent intervals contract into half-steps, and the prominent span becomes a diminished third.

![Figure 1.7: The theme crunched into pitches of the consequent](image)

The end of this thematic statement coincides with an entrance of the theme as stated in the four voices in Figure 1.6. This entrance is displaced by some unknown number of beats, for it enters in the middle of the tag bar of the previous phrase. Consequently, it ends on the off-beat of a clear downbeat and thematic recurrence in bar 47. The four voices stumble in at the wrong point again in bar 50, this time starting their phrase on the tag and ending in the middle of the consequent. Beginnings and endings, antecedents and consequents, interval attributes of thematic segments: all are slowly dislodged from perceptual certainty and mined for expression. Symptomatic of this environment, in bars 56 and 57, the gesture that opened the movement in bars 1 and 2, a string swell followed by moaning brass glissandi, recurs backwards, brass introducing strings.
The next two thematic pitch dislocations restore the melodically prominent major third (written as a diminished fourth), but keep the compressed half-step distance, no longer dividing the third evenly. The theme becomes profoundly uneven, almost lopsided; no longer a static floating descent, it develops a faltering, asymmetrical gait.

FIGURE 1.8: Further interval dislocations

In its final expansion, the prominent interval spans a fourth from the high point E down to B. In the following seven recurrences of the theme at this pitch level, all tags and consequent phrases disappear or morph into orchestral declamations. Without tags or consequents, phrase recurrences, stacked back to back, acquire a new element of shock. This shock is heightened by a diminution of metric ambiguity by half: besides strong/weak beat considerations, 5/8 bars introduce the possibility for on/off beat dislocations. While the prominent melodic interval has become more stable and perfect, rhythmic displacements intensify.

FIGURE 1.9: The theme at high point, now dislocated onto offbeats
In this discussion I have omitted a few recurrences where the theme returns to its original pitch classes and order. An accurate account of the fixing and un-fixing of the theme’s pitches illustrates not only the themes dislocations but also its relocations; as with rhythmic displacement, the story of pitch is one of a push and pull towards and from regularity.

FIGURE 1.10: Push and pull of pitch material throughout “From Above”

While “From Above” swallows its own tail and returns to a state of regularity, or at least balanced irregularity, the second part of Dreamhouse’s opening movement, “No Matter How Precisely” is a rhapsody of contrasts, sudden shifts, and dissolving patterns. The music and text, “No matter how precisely strings are laid there will be foundation flaws”, paint the possibilities of dissolution. Here the regularly recurring material from
“From Above” itself becomes unhinged and looses identity. The consequent phrase is fragmented and repeated; the first section of the phrase is struck up as a grotesque big-band accompaniment. More subtly, fragments recur almost unrecognizably, as in this pitch order and register jumbling of the consequent,

![Figure 1.11](image1.png)

FIGURE 1.11

Or this scrambling of pitch and dissolution of rhythmic difference in a repeating pattern of three guitars, blurring all distinction between consequent pitch material (guitar 3) and pitch material from the E D B high point of the first part of the theme (guitars 1 and 2).

![Figure 1.12](image2.png)

FIGURE 1.12
These variations represent perhaps the furthest possible displacements of gesture: the dissolution into the seeming randomness of pure sound from which they came. “No Matter How Precisely” hints at the impossibility of ever permanently preventing a collapse into chaos. This is a displacement on a much larger scale: the cumulative irregularities of “From Above” tumble apart into the second section’s murk. Harkening back to the blues, imagine a guitar solo with so much held tension that a following song finds the drummer tapping with brushes, now taking a solo on the cymbals, now striking up a march, looking for some explanation, unable to find reassurance.

The possibility of dissolution reminds us that music contains continuums spanning order and chaos, from pitch to noise, from Boulez’s smooth (unmeasured) to striated (measured) time, and so on. The fixed-ness of a gesture might also run across a continuum; some gestures seem more fixed with parameters than others. I have speculated how rhythmically displaced gesture recurrence, by un-fixing a previously fixed parameter, can perpetuate an environment where other fixed elements stretch, compress, dislocate, unhinge, and un-fix. What might a less-fixed or semi-formed gesture recurrence create by environmental implication? What consequence might flow from a gesture in a tenuous state of fixed-ness? What is a tenuous gesture, anyway? It is these fragile questions that offer perhaps the most exciting possibilities for a gesture-based analysis.

In “Part II: Framing/Her Gaze” from Dreamhouse, there is a magical moment when a light haze of oscillating woodwinds and held string harmonics dissolve into two flutes blowing amplified whistle tones, with instructions reading “freely explore
overtones flowing smoothly from one note to the next but not hurried.” Part of what makes this dissolution transpire in such seamlessness is the semi-fixed-ness of the gesture from which it originates. The most articulate voices are low-register piccolos, a breathy and hollow sound. Underneath are a supporting bed of two piano bassoons and one oboe, whose slurred pulse lacks clear pitch centricity, bassoons creating an augmented triad, piccolos and oboe adding notes from the other whole-tone collection, articulating a pitch cloud. Held string harmonics create a quiet sheen.

The piccolo line’s identity is only semi-fixed. In what metrical position does it begin? Does it begin with two quarter notes or one? Where does the eight-note descent from E to A fall, is this fall slurred or un-slurred? How many eighth notes oscillations between E and C happen before the E to A conclusion?

Yet clearly certain elements are fixed: the pitches and directions stay the same, the gesture is some combination of longer opening notes and shorter subsequent notes. It is a somewhat formed gesture, yet opens a door to the ease of dissolve.
FIGURE 1.13: Part II: A semi-formed gesture dissolves into whistle tones
Rhythmically displaced gesture recurrences assume thematic importance in quite a few large pieces in Mackey’s output, including the opening of his electric guitar concerto “Tuck and Roll”, the final movement of “Micro-Concerto”, and the opening movement of “Indigenous Instruments”, as well as throughout the second half of “Dreamhouse.” Mackey’s music demands an analytic bent that is sensitive to gestures and their implications, and I have sought here to sketch a few possibilities for such analysis. Beyond that, I have tried to show the imaginative spark and alertness to potential implications of material that distinguishes Mackey’s language. In the above dissolution in “Part II”, there is no air of tragedy. This is not the dissolution of triumphant, self-important material, rather a transcendent slipping from one state to another. The words “freely explore” in the whistle tone instructions are an admonition to enjoy the moment, be it psychedelic, haunting, scary, or beautiful. In his music, Mackey himself is a free explorer, boldly letting elements of material bump against another, open to the appearance of an unwieldy gesture, unafraid of where the music might be going.
Chapter 2:

Dancing Through Continuums: The Opening Movement of

Igor Stravinsky’s “Agon”

“Stravinsky made time—not big, grand time, but time that worked with the small parts of how our bodies are made.”

- George Balanchine

“Agon” is Balanchine’s closest collaboration with Stravinsky, and begins not with music but rather with two silent dance motions. In the opening “Pas de Quatre”, four male dancers signal the start of action by rotating in unison from their backwards-facing positions to face the audience. Then, also in unison, on the musically silent downbeat, the dancers execute a plié: a smooth, continuous motion in which dancers bend their knees to a low point and, just as smoothly and continuously, straighten them again. For the dancers, the plié is count one, the downbeat of the ballet, the impulse that sets their dance and the music in motion. The plié is repeated twice in the following eight count dance phrase, each time during the split-second rest in the music.

Dance is an expression of embodied gestures, that is, sequences of actions across continuums. In this case, the plié gesture can be thought of as action across a continuum from straight leg to bent knees and back again. More broadly, a plié is typically a gesture

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that is a fixed part of musical-choreographic rhetoric; the low point of a plié traditionally corresponds to music’s articulated downbeat. If Stravinsky’s first three bars each begin with a sixteenth rest, the music that sounds on the second sixteenth note of each bar will likely sound like a downbeat. If the dancers articulate only the silent (written) downbeat, but not the heard downbeat, then it’s fair to say that the plié has some relationship to “the downbeat”, a relationship un-fixed from perceptual clarity. Balanchine’s opening choreography provides a gesturally embodied metaphor for Stravinsky’s music, in which the musical gestures articulate a continuum of relationships to a fixed, metrical structure.

The first sound of Stravinsky’s score begins on an offbeat sixteenth note, un-fixing the heard from the written downbeat. Accented orchestrationally by forte plucked strings, harp, and piano, the three trumpet sixteenth notes and following sixteenth-note rest articulate an even group of events (4 sixteenths), starting with an accent and ending in silence, despite the fact that this group crosses the written barline. The second sixteenth of bar two is identically accented, with no audible information signifying that it is a displaced, rather than authentic, downbeat. Rather than an even four sixteenth-note group, this second group articulates an uneven five sixteenth notes plus three sixteenth note triplets. As Van den Toorn notes, these triplets begin perceptually on an offbeat, creating an unsettled momentum that carries over into the following few bars16 (and, I will argue, the entire movement).

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FIGURE 2.1: Agon, Pas-de-Quatre, bars 1-9
Agon by Igor Straninsky
Copyright 1957 by Hawkes and Son (London) Ltd.
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The continuum articulated by the rhythmic displacement in the opening three bars is a continuum of musical events *somewhere* in a metrical time structure. The gestures thwart any fixed accentual-metrical interpretation. Here, Lerdahl and Jackendoff’s notion of perceptual preference rules or heuristics is clarifying. Lerdahl and Jackendoff posit rules (restricted to canonical Western art music) for the listener and analyst, based on cognitive theories of language processing, that prefer hearing certain types of musical events as accented versus un-accented. For example, Metrical Preference Rule 3 is “Prefer a metrical structure in which beats of level L that coincide with the inception of pitch-events are strong beats of L.” Or, Rule 10: “Prefer metrical structures in which at each level every other beat is strong.”

What might Lerdahl and Jackendoff-style preference rules for Stravinsky’s passage look like?

—Prefer retrospectively hearing a silent sixteenth note downbeat to hearing offbeat triplets. Or:
—Prefer hearing odd numbered eighth-note groupings (here, 5/8 + 3/8, see ex. 2) to hearing offbeat triplets.

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FIGURE 2.2: A complicating and unhelpful re-barring of bars 1-3 that nonetheless puts the initial attack and triplets on the perceptual and notated downbeats.

There are difficulties (really, delightful perceptual ambiguities) in any hearing of the opening; even following a recording along with the score, I struggle to hear the first three bars as written, even if I can hear it this way in my “mind’s ear” while looking at the score and not actually listening to a recording. None of the above preference rules seem to accurately capture the effect of the rhythm; in a way, such moments are nearly “beyond the cognitive” in their invocation of continuums. Perhaps the best we can say is that each of the first three bars feel like upbeat gestures, each expanding a little bit, their displacement from the downbeat serving to reinforce a landing on bar 4. Like the continuum of possible relationships between the choreographed plié and “the downbeat”, there is a continuum of relationships between the opening gestures and perceived
metrically structured time, regardless of whether we are aware of how the music is notated. Because it articulates such a continuum, the displaced opening rhythm becomes gestural: the “off-beat triplets” stumble, stutter, and create uncertain momentum that spills over into the music that follows.

If the opening of the “Pas de Quatre” articulates a gestural rhythmic domain, analysis of other musical domains might similarly yield gestural qualities, creating the possibility of re-integrating hearings of musical parameters into a gestural hearing of “the music” holistically. The unsettled, bustling momentum of the opening phrase results from a coalescing of parameters including but not limited to rhythm. Harmony, orchestration, and thematic development all “gesture” in these opening bars.

The repeated opening harmony forms Forte PC Set 3-4 (0,1,5); however, the note in the bass is important here and provides centricity: these are not hierarchically equal pitches and this music is not “atonal”. Given the strong F in the basses, cellos, piano, and harp, the passage evokes a Lydian sound defined by the augmented 4th above the bass (B), here distinctively clashing with the perfect fifth above the bass (C). This reading of the opening harmony is sympathetic to other evocations of Renaissance style in the work, such as the upcoming Landini Cadence, or the canon at the fifth between mandolin and harp throughout the entirety of the “Gailliarde” (Stravinsky was inspired by French Renaissance musical treatises while working on “Agon”\(^{18}\)).

Whether we note via the “interval vector” that the 0,1,5 set contains a tri-tone and a half step, or that these intervals suggest a Lydian modality, the important thing is not

terminology but the activating effect of the strong dissonances caused by the note B both above the bass F and below the trumpet C. The dissonance caused by the middle-register B renders the sonority as a whole somewhere between stable and unstable: the C above the bass forms a stable P5, the B, an unstable A4. Unlike “common practice” usage of dissonance above the bass, this note does not arise by special voice leadings or resolve; it is orchestrated rather as a chord tone. Because the chord F B C articulates a continuum between harmonic stability and instability, it can be heard as a gestural harmony.

If Stravinsky’s opening harmony “gestures”, then the stuttering rhythm of the trumpet line might be heard as an activation of inherent harmonic tension. Indeed, hearing Stravinsky’s off-beat triplets metaphorically as “beats”, the out of sync phase patterns caused by two relatively close simultaneously sounding pitches, offers a way of conceptualizing the analogous gestures that rhythm and harmony articulate. If the rate of perceived “beats” equals the difference between two frequencies, here we would have (C5 = 523hz) – (B4 = 247hz) = 276. The fact that the difference here is close to half of the upper frequency reflects the fact that B4 to C5 is close to an octave but not quite; the pitches invoke the possibility of even-ness just as the meter does by beginning with an audible group of four sixteenth notes. Harmony and rhythm simultaneously and sympathetically “gesture.”
FIGURE 2.3: Sine waves in an *almost* 2:1 ratio as an analog to Stravinsky’s opening rhythm

The F that provides centricity via bass prominence disappears in bar 4 and French horns articulate F-sharps in bars 5 and 6 and they move to the Landini cadence on C on the offbeat 16\textsuperscript{th} note. In terms of macro-harmony\textsuperscript{19}, F Lydian in bars 1 to 3 gives way to C Lydian in bars 4-6, the F to F-sharp adjustment destabilizing the initial modal center. Just as the C Lydian Landini cadence is articulated, an F-natural in the English horn undercuts the modality, re-establishing a white note collection through bars 7-9. The pitch F first un-fixes from centricity, then shifts to F-sharp, and back down again.

The chord in upper winds on bar 7, with the English horn as a weak bass, is, low to high, F G C (PC set 0, 2, 7). The similarity of this chord to the opening chord, each having an outer low F and high C with a dissonant 2\textsuperscript{nd} somewhere between, suggests a gestural connection to the opening bars. Looking only at the harmony, that which “gestured” in the opening, the B between the stable P5, now analogously “gestures” as G, this time closer to the low bass pitch than the upper pitch: the harmonic gesture inverts.

Here it is worth viewing bars 7-9 holistically; if we do, we can find not only a harmonic gestural inversion but also a gestural inversion of “the music” with respect to bars 1-3. The instruments providing the harmony sustain rather than attack; in physical terms, they are blown rather than struck. The rhythmically active instruments, here basses rather than trumpet, articulate harmonic tension from below rather than above, here both B and G in the basses clashing against the P5 F to C. The basses also sound relatively harmonically unstable tones (G and B below held F and C), while opening the trumpet sounds a relatively stable tone (C above plucked F). Unsteady alternating movements emanate from the basses, while the trumpet projects stasis.

FIGURE 2.4: Diagram of gestural inversion 1-3 to 8-9

The G in the basses, harmonically unstable in bars 7-9, becomes the stable root of a G Lydian macro-harmony in bars 10-13. The ascending fifth harmonic shifts in bars 1-
13, F to C to G Lydian, also tell a story of central pitches becoming de-centered through chromatic alteration: F becomes F-sharp in C Lydian, C becomes C-sharp in G Lydian. The G-sharp in the left hand of the harp in bars 11 and 12, therefore, continues a de-centering harmonic rhetoric, though this time the de-centering occurs within centricity: G-sharp appears in a G Lydian context. Like the chords in bars 1-3 and 7-9, here macro-harmony G Lydian articulates a continuum between stability and instability, becoming gestural.

Hearing the harmony in bars 10-13 as gestural (here, relatively unstable) correlates with observing that the root note G in the low piano and basses is displaced first from the downbeats and the harp and mandolin cadence, the element of surprise re-enforced by the marking \textit{sf} in both instruments. The strong syntactical function as bass, combined with accent and weak metric position, seems to turn the whole texture into a single plucked instrument. An off beat bass note is something that one might find in guitar music where the melody happens on the strong beats and the thumb plucks the bass note whenever it can, giving the texture an off-kilter lightness. These low, harmonically centering notes in the piano and bass articulate a continuum between \textit{accented} and \textit{un-accented}, with the music floating somewhere in between. The note resonates with the gestural quality of the macro-harmony, which threatens to float up another fifth to D Lydian due to the G-sharp.
Gestural hearings of harmonic events illuminate two consecutive sections later in the movement. In bars 30-31, we hear a varied restatement of the opening bars, this time with clarinets on the rhythmically active pitch C. As in the opening, this harmony is the Lydian PC set 0,1,5, transposed up by half-step (F B C becomes G-flat C D-flat). Here, however, the rhythmically active line in sixteenth notes articulates not the stable fifth above the bass (C above F), but rather the de-stabilizing half step and tri-tone below the harmony (C below D-flat and G-flat). The gesture sounds a continuum of roles and orchestrations for a rhythmically active pitch C in a 0,1,5 harmonic context.

These repeated C’s in the clarinets tumble into trumpet and horn motives in bars 32-34, landing on a new harmony in bars 35-38: the F G C (0, 2, 7) wind chord from bars 7-9 (already having recurred in bars 19-22) here is transposed down a whole step to E-flat
F B-flat (still 0, 2, 7) in a repeat of the gesturally inverted version of the opening bars.

This transposition creates a new set of dissonances against the simultaneously repeated G B figure in the basses. Similar to the continuum above, this transposition of earlier material sounds a continuum of harmonic contextualization for the active pitches G and B.

This continuum is sounded explicitly in the following bars 39-42, when the two versions of the harmony, un-transposed and transposed, alternate with each other. Here, transposed versions of the same chord literally “gesture” (note the hairpins, adding dynamic motion). Not only do these transposed and un-transposed versions articulate a continuum of pitch relationships, but they also articulate the continuum of time in the piece, gesturing between an initial harmonic context and a later re-contextualization. Here, for the first time, the bass figure locks into a relationship with the chord above, bass B sounding with F G C, bass G sounding with E-flat F B-flat.
In his introduction to motive variation in “Fundamentals of Musical Composition”, Schoenberg writes, “Consciously used, the motive should produce unity, relationship, coherence, logic, comprehensibility, and fluency.”20 Throughout the opening “Pas-de-Quatre” from “Agon”, thematic unity, like harmonic stability or metric-accentual clarity, is continually and simultaneously invoked and thwarted. Stravinsky’s use of motive throughout the movement articulates themes somewhere in the continuum between unified and un-unified, coherent and incoherent, comprehensible and incomprehensible. In his thematic gestures, Stravinsky sounds a continuum between identity and non-identity.

Like a parse-able metric structure hinted at and abandoned, or a perfect fifth de-stabilized by a tri-tone, Stravinsky dissolves the identity of his motive directly on the heels of its presentation. In fact, one way to parse exactly what Stravinsky’s motive is invokes negation: the motive in bar 4 in the trumpet—descending whole step, ascending triplet outlining a minor third, same descending whole step—only appears once in bar 4, and never again throughout the entirety of the movement until the final bars, where it accumulates in *stretto*.

![Figure 2.8: “The Motive” in bar 4, motive diagrams of bars 56-60](image)

In fact, directly after bar 4, in bars 5-6, this theme is presented in a fragmented, inverted, augmented, and generally barely recognizable *stretto* between the trumpets and horns. This quasi-imitative brass passagework becomes an important force for momentum throughout the movement, sounding thematic and rhythmic instability following relatively more stable sections. The most recognizable imitation is the lower
trumpet in bar 5. Indeed, the lower trumpet actually begins imitation a bar earlier in bar 4; like the upper trumpet, its motive tumbles out of “off-beat” triplets. In bar 5, one note is deleted from the motive, and the following note raised a step. The “missing” descending whole step that should have started the motive appears in bar 6, at the end, transposed down a whole step. In the upper horn, the whole step motion is augmented, the passing motion up the minor third is deleted, and the ascending minor third motive is repeated to create the Landini cadence. In the lower horn, the ascending third is spread across the bar in an uneven rhythm, and the falling whole step helps articulate the cadence. Viewed in these terms, the Landini cadence arises as a contrapuntal combination of the salient motive motions: descending whole step, rising minor third. There is some evidence that Stravinsky himself viewed melody as extended and elaborated cadences.21

FIGURE 2.9: Bars 4–6 with motive diagrams

There are three similar brass passages throughout the movement; each time, the melodies articulate music in a continuum between recognizable and unrecognizable

21 See, for example, Igor Stravinsky, Poetics of Music: In the form of Six Lessons (Cambridge: Harvard University Press, 1970), 41.
motive fragments, never stating the motive as a fixed identity. The motive exists as a hinted at yet undermined possibility.

![Figure 2.10: Bars 16-19 with motive diagrams](image)

FIGURE 2.10: Bars 16-19 with motive diagrams

The recurring harp and mandolin melody (bars 10-13, 23-25) similarly exists somewhere between being a recognizable and unrecognizable variation of the motive. Here, the whole step motion is inverted (ascends rather than descends), as is the minor third motion (descends rather than ascends). The minor third motion is also conjoined with the whole step motion.

![Figure 2.11: Harp and mandolin melody, bars 10-13](image)

FIGURE 2.11: Harp and mandolin melody, bars 10-13

More clearly related to the motive, but still in a continuum between comprehensible and in comprehensible as an audible variation thereof, is the horn line that coincides with the return of a prominent F harmony in the bass. Here, as in bars 10-13,
the motive is directionally inverted. The whole step and minor third motion are separate, however, placing this recurrence closer to the original theme.

FIGURE 2.12: Horn melodic inversion, bars 43-45

The most striking invocation of a motive continuum occurs simultaneous to the explicit sounding of the harmonic continuum in bars 39-42. Here, if the minor third is a prominent motive throughout the piece, invoked by the trumpets at the beginning and end, varied in the main theme of the harp and mandolin, made to produce the distinctive Landini cadence, then this passage poses the question: Is the motive an ascending or descending minor third? Which direction, up or down, characterizes the motive use in this passage? Or is it impossible to say which is the more prominent direction, and can we characterize this moment as gestural?

FIGURE 2.13 Upper winds, bars 39-42

One goal of my analysis has been to show how three parameters of musical discourse—rhythm, harmony, and thematic development—all gesture in the opening of “Agon”. Having pointed to gestural hearings of these parameters, a complete analysis of the movement would invoke a re-integration of these parameters in a “gestural” hearing
of the music as a whole. The opening gestural harmony F B C can be heard linearly in the stuttering off-beat triplet rhythm, which then tumbles into the quickly disintegrating motive, whose immediate *stretto* imitations land only tentatively on a rhythmically displaced Landini cadence, itself a contrapuntal version of motive fragments. A gestural inversion of the opening music follows, where what was above the harmony moves below it, what was plucked is sustained, and so on.

Rather than progress through the whole movement with such a hearing, I think it more promising to leave such a hearing to each subjective listener. Instead, I would like to point out the most elusive continuum yet, a continuum that a gestural hearing attempts to grasp. There exists a continuum in music between what the analyst construes as rhythm, harmony, and motive. In the act of listening, these strands of musical discourse are integrated and heard in continual relationship. Attempting to articulate this continuum is one of the most fleeting yet rewarding gestures of musical analysis.

I have also taken a cue from Balanchine, quoted at the start of this chapter, that Stravinsky understood the *scale* of human gesture and that his music embodies this understanding. Balanchine claims that Stravinsky’s constructed time is neither “big” nor “grand” but sympathetic to the “small” parts of how bodies are made. Looking at the unfolding of time on a small scale in “Agon” reveals a universe of gestures. Therefore, in my gestural analysis, I have not only sought to approach a hearing that integrates strata of musical discourse, but also to locate the useful scale for musical analysis in this movement. In Stravinsky, a gestural hearing reveals music in the continuums between the points (metrical, harmonic, thematic), just as the dance exists between the articulated positions of the body.
Listening for the small music between the articulated points allows for a final insight into Stravinsky’s opening. Certain passages of Stravinsky’s music (such as the opening of “Agon”) can seem at first hearing to articulate rigid juxtapositions of musical-textural blocks: bold, orchestrationally and rhythmically defined sectional objects follow one after the next. Listening to gesture and momentum, however, reveals how seamlessly energy flows from section to section. A gestural hearing asks the listener to be attentive for those small moments between sections. Does the eighth note rest that begins bar 10 (and a new section) separate two blocks of textural material, or rather is it filled with the momentum of the gesturally dense preceding music? In Stravinsky, as Balanchine wrote, “Life goes on within each silence.”

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Chapter 3:
Dramatizing Perceptual Continuums:

Gestural Harmonic Motion in Brahms’ String Quintet Opus 111

“In such a soul [Brahms] the pictures of the present cannot appear in their simple and natural colors, for the ever-present past will cast a peculiar reflection which renders these colors entirely personal and individual.”

-Paul Henry Lang

[Emphasis added]

Aping a line from Harold Bloom about Hamlet, it is interesting to imagine that Brahms is a composer who overhears himself: his creations often perceive their own motions, continually listening backwards even as they flow ahead. In his String Quintet Opus 111, Brahms’ orchestrational trajectories and harmonic motions create a play of time within the work, sounding music that mirrors our perception’s ability to simultaneously hear forwards and understand backwards.

In recent years, David Lewin and others have brought proposed models of perception to bear on music analysis. In his influential essay “Music Theory, Phenomenology, and Modes of Perception”, Lewin utilizes elements of computer science and philosophy to create a model for perception (p) that seeks to take into account a

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23 Paul Henry Lang, Music In Western Civilization (New York: W W Norton and Company, 1941), 897
musical event (EV), its context (CXT), the relationship of the perception to an outcome or action (PR-List), and the technical name relevant to the event in a given musical language (ST-List). Lewin’s “p-model” offers a precise yet flexible parsing of observations related to how a particular musical event sounds in different perceptual contexts.

Lewin succinctly demonstrates the role of context in musical perception by contrasting how a single a-minor triad sounds different in isolation than it does in the context of a deceptive cadence. The same chord, in different contexts, “sounds” different (Lewin uses quotes); this emphasis on how “the same” isolated event “sounds” different in context gets at the root of what might be termed a phenomenological exploration of music. In Lewin’s involved discussion of Schubert’s “Morgengruess”, he allows context to color events further than in the example of a deceptive cadence, for here he allows music to be re-contextualized and re-heard backwards. For clarity, I will stick with the example of the deceptive cadence to illustrate Lewin’s point. The musical event, “a-minor triad”, can perceptually sound different if followed by a ii—V—I cadence in C major versus if it is followed by a ii—V—I cadence in A minor. The event sounds different in the context of a musical memory that seeks to understand as it simultaneously listens forwards; musical perception includes a backward-gazing understanding of events.

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I propose that there are harmonic events that so strongly articulate this continuum through backwards and forwards time that it is useful to think of them as *gestural*. One familiar example of this phenomenon is a modulation that employs a “pivot chord”. In the first Prelude from the Well-Tempered Clavier Book I, in the modulation from C major to G major, Bach employs such a chord, in this case a minor6 in bar 5, that functions both in the old key and the new key, smoothly connecting the two. The a-minor6 functions as vi6 in C major and ii6 in G major.

When first heard, “the harmony of bar 5” is understood as a vi chord in a C major context; however, when we hear “the harmony in bar 6”, and if we are fluent in the possibilities of functional harmony, the D-dominant 2 chord casts a retrospective color back onto “the harmony in bar 5”, and an understanding is created in the listener’s perception that the a-minor6 also functions as a ii chord in G major.
Yet the harmony in bar 6, V2 in G major, throws perception forwards as much if not more than backwards. As a dominant chord, it is the most highly “predictive” chord in tonal syntax, and indeed a G chord follows in bar 7, with the 7\textsuperscript{th} in the bass voice resolving down and the leading tone resolving up, as they “should”.

Harmonies that point music forward and backward simultaneously articulate the temporal continuum of our musical perception in which our ear moves forward with the music while simultaneously understanding and revising those understandings. In the Bach, the “harmony in bar 5” marks an expansion of the gestural language in the figuration as well. The upper voices, closed in the first four bars, open to an airy fifth and octave, a moment of buoyancy that ignites a sequence of gestures that alternate between open and closed chord voicings.

Such gestural harmonic motion can be recursive. In Schubert’s “Meeres Stille”, a chord that first appears to be a secondary dominant is revealed to be embedded in a larger harmonic progression as a subdominant. Schubert’s song begins in C major, and the F-sharp diminished triad in bar 6 would most commonly function as vii/V; here it becomes ii-half-diminished leading to V—I in E major.

FIGURE 3.3: Schubert, Meeres Stille
Here the triad in bar 6 points forward to an arrival that never comes, and is re-contextualized by the forward pointing dominant that follows. Such motion temporarily upends whatever hierarchical difference may exist between subdominant and dominant functions in tonal syntax, instead revealing a continuum of functional perceptions through time. One can easily imagine how the melody in bar 6 could resolve in the next measure to a G, harmonized with V or I6/4 in C major. Instead Schubert uses the ambiguous nature of the diminished triad, and the fact that, when lacking a 7th, it can act as ii or vii, to create an effect that is wild, strange, and yet entirely coherent.

Certainly it is nothing new to point out the harmonic subtlety of such a moment. Yet by identifying the continuum of perceptual relationships that these types of harmonic motions articulate, one can hear (imagine?) harmony gesturing forwards and backwards. In our perception, the chord becomes like a flag rippling above still waters, vibrating and oscillating with implication in several directions. As in the Bach prelude, this harmonic moment in Schubert’s song is marked with gestural distinction, as the voice leaps upwards by a 4th the first time on the word “Regung” or “movement”. And as the vocal phrase concludes on “Meer” or “sea”, we hear a continuum of harmonic interpretations of the melody note E; it begins as the 3rd of C and ends as root, traveling a distance only to be re-contextualized. “Stille” indeed.

Brahms certainly utilized such local moments of gestural harmonic motion. Peter H. Smith notes, for example, “harmonic bivalence” in the Adagio of Opus 111, observing that “it is possible to interpret the movement’s initial progression as either tonic-dominant in D or subdominant-tonic in A… What is crucial is the fact that Brahms creates
a theme in which there are cues for both possibilities.”26 Smith traces some of those cues throughout the theme and variation movement. In a discussion of metric ambiguity in Brahms’ piano quartet in C minor, Smith articulates a language of continuums that I find very close to the effect of such harmonic passages:

“With respect to rhythmic issues, we might consider the piano quartet’s basic idea in light of a continuum extending from materials that are metrically unequivocal to those that are a-metric; that is, situations in which there is absolute clarity one way or the other. The quartet’s motive stands between these extremes…”27

One can imagine a continuum extending from poles of clearly defined tonics and dominants, and that Opus 111’s Adagio theme falls somewhere between the two extremes, un-fixed from clarity, gesturing from one pole to the next.

FIGURE 3.4: Brahms, Opus 111, Adagio, bars 1-2

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Sometimes Brahms writes whole passages of such gesturing harmony. In the opening of the Intermezzo in B minor, Opus 119, Brahms unveils harmony one pitch at a time in a series of falling thirds. Descending thirds are one of the key motions that characterize functional tonal movement, and here a new root could be heard with the recurrence of each new note. However, as triads, 7\textsuperscript{th}, and 9\textsuperscript{th} chords are themselves stacks of thirds, one could equally plausibly assert one chord per bar. I find my ear constantly trying to understand these opening bars \textit{backward}, searching through each plausible parsing point for what it might reveal about musical meaning. Note that the inherently gestural leaps, in thirds, give way to steps in bar 4 as the harmonic progression and forward motion becomes clear.

\textbf{FIGURE 3.5: Brahms, OPUS 119 no 1, bars 1-4}

In such passages Brahms reaches beyond the act of engaging our perception’s ability to listen forwards and understand backwards. Opus 119 no. 1 \textit{dramatizes}, through what we might think of as a texture of unfolding, this quality of perception by creating music that \textit{itself} seems to move backwards while moving forwards. This music continually re-understands itself in different ways as each new note unfolds, bringing the ever-present past to the fore, creating an eerie awareness of the time continuum connecting each musical event.
To bridge the gap between the abstractly and more concretely gestural (between what we might call “harmony” and “surface feature”), we might note that this passage from Opus 119 lacks a true bass. As the line descends, melody seems to become harmony, reaching down for a contextualizing bass note, only to leap upwards and begin as melody again. This kind of textural ambiguity sits naturally on a piano, with its relatively uniform tone throughout register, and ease with which it blends notes. How might such a tenuous flickering between melody, bass, and projected harmony translate orchestrationally into chamber music?

In the opening Allegro non troppo from Opus 111, the cello starts as a bass (I-V; V-I) in bars 1 to 3, and then becomes something like melody and the bass together in bars 3 to 5. The cello here seems to gesture within a continuum of melody—an ascending third motive—and bass—big, low chords in root position. In bars 6 to 9, the cello becomes untethered from bass function, precariously leaving that role to flickering viola tremolos. In bars 10 to 11, the cello relinquishes its melodic prominence to the first violin through a magical sleight of hand, the cello descending as the violin ascends to become the high voice on the downbeat of 10. By the end of bar 11, the first violin is clearly the melody with the heroic leap and stepwise descent that the cello had outlined in bar 9 (itsel recalled from bar 7). The cello in these bars is masked in the texture, not quite bass, not melody. In bar 14, the cello returns unequivocally as bass with the big low C, echoing bar 5.
FIGURE 3.6: “String Quintet”, Opus 111, Johannes Brahms. Bars 1-16
Hearing the cello wildly articulate this continuum between melody and bass gets at its gestural quality and the way its motions effect the motion of the music as a whole. The steadiness and occasional flickering of the accompaniment in the other instruments matches and is colored by the vacillations of the cello on its journey through musical roles.

When the cello abandons its bass role, the projected harmony gains a light and tenuous quality. From the low C in bar 5 to the low C in bar 14, the music seems to lack any “true” bass, the efforts of the violas notwithstanding. The effect is of a big subdominant prolongation. If we were somehow unaware that the bass has gone missing, when the low C returns in bar 14, it reminds us of where exactly we might have lost it.

Other musical elements gesture across related continuums. For example, what are we to make harmonically of the cello’s opening two notes? The cello’s opening gesture inverts the more common pick-up leap from dominant note to tonic note; here the cello lands on a low D, creating a I6/4 harmony on the strong beat of the phrase. This is a gestural melding of tonic and dominant, recalling Smith’s similar observations about the Adagio movement. The cello’s initial pick-up note, the low G, is also the goal note of its first phrase three beats later, somehow erasing differentiation between beginning and end. Combining this thought with the above observations about the importance of landings on low C, it is possible to hear another layer of meaning to the cello’s first note: in relation to the coming Cs, it is in fact a pick-up leap from “dominant” (G) to a strong beat “tonic” (C).
A similar upending of polarities occurs in the transition into the opening movement’s second theme, bars 25 to 26. The first violin plays, in bar 25, a cadential figure (half-cadence in D) that is identical to the start of the main theme in the first viola in bar 26. In other words, the same pitches, rhythms, and articulations provide cadence and new beginning, closure and projection. This theme, conjuring a Viennese waltz, is so smoothly elided with the end of the “medial caesura” that points of formal articulation seem to dissolve into the perception of an unfolding musical continuum. The cello stays on the dominant pitch, blurring the harmonic resolution from dominant to tonic by refusing bass motion.

![FIGURE 3.7: 1st Movement, Bars 25-27](image)

Brahms employs a similarly resonant muddling of endings and beginnings in the second theme group of the final movement. Here phrase endings continually “resolve” into the beginnings of phrases that follow, often employing chromatic neighbor tones. Such strong “tendency tones” on the ends of a melodic phrase create an ending only in the sense that they are follow by a pause; otherwise they reach forward through their silence to the note that follows.

![FIGURE 3.8: 4th Movement, bars 40-48, Melody](image)
In the theme that follows, Brahms disrupts a jaunty I—IV—I—V harmonic rhythm by putting the arrival of the V chord over a leap to a low I or D in the cello. Such a move not only dislodges the harmonic pattern from perceptual clarity, it blurs the crucial and motivating difference between tonic and dominant that drives the tonal system forward.

FIGURE 3.9: 4th Movement, bars 53-56, Outer Voices

I take pains over such details because taken together they reveal something of the language of the composer with regards to moments or motions that could be regarded as gestural. When I hear, for example, the phrase above ending on a V chord simultaneous to the accented low D in the cello, my perception vibrates with the irreconcilable mixed signals. I also believe that such moments subtly unseat cognitive categories that form the boundaries of informed musical perception such as “tonic” and “dominant”, and instead reveal a larger continuum of possibilities in between. Similarly, if such categories as “end of phrase” and “beginning of phrase” can become diluted in listening to a melodic line, we can start to hear the music gesture as it articulates a continuum of musical flow.

Such local observations are perhaps the building blocks of an argument about continuums of harmonic motion. The more we tune in to the experience of, for example, the Quintet’s first two cello notes revealing a continuum of tonic and dominant meanings, the more we might recognize the dramatization of such perceptual events in larger scale swaths of harmonic movement.
The opening theme is remarkable for the way in which Brahms deploys gestural harmonic motions that alternate between pushing forwards and backwards, dramatizing the play of perception and understanding. It must be stated that this argument rests on the metaphor of functional tonality being a means of pushing music forward, a metaphor embedded in ways of talking about tonality: $I$ leads to $ii$, $ii$ leads to $V$, $V$ leads strongly back to $I$, etc. Therefore, when these motions are reversed, as in $ii$ moving to $I$ or movement in ascending fifth, we might conceptualize this as metaphorical backwards movement.

The opening cello melody arches heroically over the first seven bars, stretching through harmonic changes that yearn forward. Starting in G major, with a briefly affirming $V—I$, the harmony moves quickly to the subdominant through a $V7/IV—IV$ motion. Pivoting on the melodically prominent $E$ over the $C$ major harmony, the music pushes to $V7/vi$ to $vi$ or $E$ minor. The phrase ends on the dominant of $E$ minor, $B$ major.

The opening melody over-shoots its goal. After all, the traditional model of an opening phrase has something to do with establishing the tonic key. This one blows past that marker with a brief $V—I$, moving quickly onward to reach further harmonic terrain. What follows this progression is a corrective to the heroic reach of the tune, climbing ever upward.

In bar 8 Brahms takes a step-wise ascending third motive from bar 5 and begins a harmonic sequence. Here, after three “successful” forward-pushing $V—I$ motions in the first seven bars, Brahms’ harmony starts moving “backwards” with three ascending fifth motions: $I—V$, $V—ii$, $IV—I$, in $B$ major. Harmonic progression become retrogression.
Here the ascending step-wise third motive is used to create a falling backwards motion, like a parachute wafting back and forth on a descent to the ground. The hero, having reached the summit, jumps. Motive and harmonic gesture are metaphorically unified in this passage, for “ascending thirds” is a backward harmonic motion (descending thirds being the norm) in functional harmony, just as are “ascending fifths.” The ascending fifth sequence repeats in bars 10 and 11, though this time shifting keys. Passages of music rushing forward and falling back invoke rich gestural metaphor through the invocation of the continuum of motion that music can express.

To shift the momentum of the music forward again, Brahms employs one of the bivalent harmonic moves discussed above. The beginning of a sequence, vii/V—V, vii/vi, in bars 11-13, lead us to expect a landing on vi in bar 14. Instead, Brahms lands on a C chord (IV), which we can understand as a “deceptive” resolution of the sequence to a harmony a third lower than expected. This deceptive resolution causes a re-hearing backwards of the harmony in bar 13; the diminished chord becomes something like a common-tone diminished chord to the following C major. At this point, C major leads to D major (and that low C in the cello finally makes its return, having arrived as a
deception), sounding a visceral and boot-strapping movement from IV—V, and with this the music hurtles forward once more through a G major cadence.

FIGURE 3.11: Bars 11-15

A sequence is quickly established in bars 18-20 the affirms the key through functional-tonal means, first I—IV—V—I and then descending fifths, I—IV—vii—iii—vi—II (or V/V, to tonicize V), and further, the melodic unit of this sequence is now a stepwise falling third. Just as they rising stepwise third plays a prominent melodic role in the “backwards” sequence, here a falling third is the essential voice-leading unit of a forward moving, functional-tonal sequence. Motive and harmonic gesture remain joined. Pushing forward towards the cadence, and a filled-in medial caesura, the music tumbles onward in a rush of energy.

FIGURE 3.8: Bars 18-21, Reduction

The idea that descending and ascending stepwise melodic thirds are somehow related to a push and pull of musical motion is explicit in the last movement of Opus 111,
a peasant-dance Vivace. The opening motive of the movement is a misaligned voice exchange, ascending and descending thirds not quite on top of each other, whose offset rhythms lie squarely in the middle of a continuum between metrically clear and opaque. Gestural motion here has more to do with rhythm than harmony, but the fusion of rising and falling thirds with the push and pull of momentum is thematic.

![FIGURE 3.9: Vivace Movement, bars 1-4, Outer voice reduction](image)

Returning to the first movement, Brahms’ harmony elaborates a gestural drama between forward and backward motion throughout the development section. Let us dwell here on a further detail of the first theme. In the first theme, Brahms’ cello melody quickly progresses from G major in bar 1 to B major in bar 8, where the first sequence begins. I will borrow a Neo-Riemannian term and call such a major third harmonic relationship a “transformation”. Such moves evoke neither forwards nor backwards functional tonal motion, rather they seem to be a magical transformation of the present: a G major chord shifts by two subtle semitone movements to B major, the one harmony mutating into the other. Gesturally, such transformations might represent the literal present moment, with movement neither towards the past or future. Thus, we might propose a metaphorical structure, with types of harmonic motions representing types of movement through a time continuum.
If Brahms’ manipulation of harmonic motions in some ways dramatizes our own perceptual trips through time, memory, and understanding, we might map the above diagram further onto a model of perception through time.

### Harmonic Motions

<table>
<thead>
<tr>
<th>Backward Motion</th>
<th>Static, Transformative Motion</th>
<th>Forward Motion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ascending Fifth, Third</td>
<td>Major-Third Triad Relationships</td>
<td>Descending Fifth, Third</td>
</tr>
</tbody>
</table>

### Musical Perception

- **Retrospective Understanding**
- **Listening in the Moment**
- **Projected expectation**

In the development, just as in bars 1-8, the shift from forward motion to backward motion breaks on such a “transformation” of the present moment; here it’s another major third shift from G major to E-flat major in bar 82. This transformation is integrated into a compositional concern ingrained in classical developments; the return of the tonic must be sufficiently delayed lest it ruin the impact of the thematic return at the start of the recapitulation. In this case, Brahms’ development moves through harmonies by descending fifth and descending third, and arrives on G major in the start of bar 82. An enormous—and gestural—E-flat major quadruple-stop in the cello breaks through a bed of Gs in the upper voices like a flash of light. It is a moment of magic, of an incomprehensibly and shatteringly present musical event that re-ignites action in the development and begins a backwards journey through harmonic motion. The transformation, as in the opening theme, is a moment of reversal.
FORWARD MOVING HARMONY:
Descending Fifths

Bar 72: D9
Bar 74: G9
Bar 76: C9
Bar 78: B-flat G E-flat C A F D B-flat G E-flat

TRANSFORMATIVE, STATIC HARMONY (central axis in development)

G Minor
Bar 82: E-Flat Major

BACKWARDS MOVING HARMONY:
Ascending Fifths

G-Flat
D-flat

Bar 88: A-flat

TRANSFORMATION:

E Major
B Major
G Minor

BAR 108: E-flat Major G major

TRANSFORMATION (to begin recapitulation)

FIGURE 3.10.1: Development, bars 72-109
FIGURE 3.10.2: Table.

The possibility of such a moment of harmonic transformation becomes the dilemma of the final movement, in which the first theme begins in B minor before magically slipping in G major: which key is the first theme area presenting? The second theme area in D major provides no clarification, for D major functions as a secondary harmonic area both for G major and B minor. The development section of the movement provides a unique solution to this bivalent harmonic paradigm.

At bar 131 of the final movement, Brahms presents a fragmentation of the opening theme, tossed back and forth between cello and a violin and viola duo. Presented on both beats one and two of a 2/4 bar, the fragment echoes the metric ambiguity of the original theme, here becoming both upbeat and downbeat. Over the following bars, Brahms presents the fragment in a block of keys related by major third: A minor, F minor, and C-sharp minor. This block of harmony related by transformation, rather than...
movement, articulates a gestural language that seems stuck in the present, ever striving for motion. Brahms’ solution is to create forward movement on the scale of this block of harmonies. Each of the three major-third related harmonies are transposed a descending fifth, the paradigmatic functional “forward” move. First we hear B-flat minor (from F), then F-sharp minor (from C-sharp), and finally, in a transformative and structural moment, a long pedal on D major (from A), which serves as a dominant pedal leading to a G major recapitulation.

FIGURE 3.11: Development of 4th Movement from letter F

Here, Brahms deploys distinct types of harmonic motion in this movement that articulate a continuum between static and forward moving progressions. In a classical gesture, Brahms “resolves” the block of static harmony by descending fifth to another block of harmony, which becomes forward moving through its dominant relationship with the tonic goal of the piece, G major. The release of the music into the D major pedal
is a rush of released energy and a runway for building momentum that spills into the Quintet’s final passage, including the peasant-like “Animato” final stomp.

While Brahms’ harmonic motion can be envisioned gesturally, perhaps the best place to begin analysis is where the conversation about gesture began: in the small, localized moment in which pitch, direction, timbre, rhythm, dynamics, and all other musical parameters seem to inextricably coalesce. The presence of such moments can reveal motions of music that seem to translate onto the realm of harmony, that grander and broader sphere that nonetheless is of a piece with musical detail.
Chapter 4:
Gestural and Hypermetrical Phrase Interpretations of the Second Movement of Mozart’s
Jupiter Symphony

“The sarabande is a passionate dance that originated with the Moors of Grenada and that
the Spanish Inquisition outlawed because it deemed it capable of arousing tender
passions, captivating the heart with the eyes, and disturbing the tranquility of the mind.”

—Father Francois Pomey, 1671

Perhaps the sarabande’s characteristic accent on a dotted second beat within a $\frac{3}{4}$
meter is the point of origin for the profundity and weight of its art-music embodiments.
Unlike an upbeat (3), which pushes action into the next measure, or a downbeat (1),
which provides a pulse impetus that pushes through each measure, an emphasized beat
two is a gravitational weight between two points with greater inherent capacity for
momentum: it creates a mid-stream pause, and an opportunity for flirtatious gesture. Wye
Allanbrook states that in the sarabande, “the first beat is preparation for, the shortened
third beat release from, a moment of controlled tension, maintained until it almost no
longer seems possible. The entire measure focuses on the lengthened second beat.”

Perhaps it is this same intensity of focus that signaled something foreign and disquieting

29 Wye Jamison Allanbrook, Dance as Expression in Mozart Opera (Ann Arbor:
University Microfilms Internatinal, 1992), 79.
to the French author above, who noticed that there is sufficient time in that lingering second beat to steal a captivating glance.

The opening theme from the Andante Cantabile movement of Mozart’s Symphony 41 K.551 has some characteristics of the sarabande: a slow tempo marking, ¾ meter, and a doubly dotted second beat. Something about the second beat’s articulated extent and the gestural transformations throughout the movement invite speculation, in a way that suggests that Mozart is mining some essential content of the Sarabande and its characteristic moment of tension on beat two. Mozart extends this gestural play on the second beat to larger groupings of measures as well, creating an evolving and gravitationally shifting hypermetric dance.

Listening to Mozart’s opening phrase, the exclamation of tutti *forte* hits in bars 2 and 4 remains interesting and mysterious, despite a common period phrase structure articulating I—V—V—I. Grouping the first two bars into three 2/4 measures begins perhaps to untangle the complex effect. There are some surface-level cues to hear every other beat as accented: the start of the phrase, the entrance of lower strings in the third beat, the tutti *forte* on the fifth. Whatever merits this interpretation might have, however,
including the landing of the tutti *forte* exclamations on a downbeat, are canceled out by the fact that it creates an uneven three bar phrase, as well as one where the harmony changes from I to V in the middle of the second bar and doesn’t change functionally from bar 2 to bar 3.

![Figure 4.2: The opening phrase, re-barred to represent to some surface cues in 2/4](image)

Regardless of the uneven number of measures in the phrases above and its odd harmonic rhythm, there is something comforting about putting the lowers strings’ entrance on a strong downbeat. And this 2/4 interpretation reveals an underlying potential for hemiola patterns within the phrase structure, something that Mozart explores in subsequent bars. There is a sense that the second beat, the doubly-dotted A in the first violins in bar 1, seems to somehow go on for *too long*, being rhetorically something akin to a suspension but without the incumbent harmonic tension. If the lower strings were a relatively strong entrance, that accent would ground the floating melodic A, lessening the disquiet of its extent. As it is, with the strings sneaking in beneath the sustained tone, a sense of uncertainty lies around the events of beat three: melodically, what occurs in this airy space, a space that then articulates pure emptiness in bars 2 and 4?

Another element of melodic tension revolving around the too-long held A is the manner in which it reaches the leading tone E in the next bar: the 32\textsuperscript{nd} note figuration is so quick as to emphasize the distance between A and E, leading us to hear the leading tone as “leapt to.” A similar thing happens to the B-flat in bar 3, which resolves to F
instead of A in bar 4: the seventh is “leapt from” in some audible sense, and unresolved (until the repeat of the phrase and its emphasis on A in the following bar). The 32\textsuperscript{nd} note figuration connecting these melodic points gesturally emphasizes the gap between them, somehow turning step-wise connections into perceptually unresolved leaps.

Rhythmically, the full impact of the double-dot might best be considered by contrasting it with a rendering of the phrase that does away with beat three altogether.

FIGURE 4.3: The opening phrase, missing third beats

Such an imagining of the phrase is not far-fetched, as Mozart writes almost exactly bar 1 above in the continuation of the phrase starting in bar 5; here a local 2/4 makes sense in terms of aligning accents with downbeats: this is, after all, the first hemiola of the movement. As the phrase re-starts, the double-dotted note is drastically shortened. Looked at another way, beat three is deleted.

FIGURE 4.4: Bars 5-6 as written, with 2/4 subdivisions shown

These examples are meant to illustrate the subtlety of Mozart’s phrasing and how the theme plays on multiple perceptions of cues for accent, meter, melody, and meaning.

Missed in these re-barrings, however, is the simple, resonant connection that Mozart
creates between the doubly dotted beat two of bar 1 and the heavily accented forte beat two of bar 2. The unsettling tutti forte accents call back to the disquiet of the sustained melodic note of the previous bar. Sarabande-like, the phrase seems to be all about the second beat, creating an upward moving continuum through the high point of each bar: A, B-flat, B-flat, C. Thinking of this line, we hear each beat two of the first four bars as connected. Though one is piano, solo and sustained and the other forte, tutti and punctuated, they are, in some important way, similar accents achieved in different ways, both followed by uncomfortable silences. Perhaps the quiet sustain of the first creates the surprise and disorientation of the second.

If our analysis began with a basic question about what exactly constitutes the perceptual impact of the opening four bars, then a next question might be about where the glorious force of bar 7, the tutti arrival on B-flat or IV, comes from. Looking just before that arrival, bars 5 to 6 mark the first two complete bars with piano dynamic. As shown in example 4 above, bars 5 to 6 mark a compression of the melodic action, a diminution of the opening phrase that renders the bar parsable in units of two beats. This diminution creates a compact force that releases in bar 7 with the tutti entrance.

Harmonically, bar 7 re-asserts a major harmony (IV) and a return to the major key (F) after the brief, morose downward slip into D minor at the end of bar 6, with a vii/vi—vi motion. This harmonic cycle, vii/vi—vi—IV, constitutes a local closing off of phrase momentum and then a re-opening. This re-opening with a subdominant in the major key coincides with the tutti downbeat entrance, and for the first time, a steady rhythmic pulse.

Traditional analytic tools provide us with such insights. Yet if we allow gesture to guide analysis, further connections can be made. For instance, in the third beat of bar 1
into the downbeat of bar 2, the melodic line falls *downward*; this descending gesture is repeated in bar 4. In bars 5 and 6, this falling gesture is extended to a full two bars, completing the full span of an octave. As in bars one to two, the descent is caught from below by a rising motion in the lower strings, here the vii/vi—vi harmony.

If we can gesturally connect the descent at the end of bars 1 and 3 with the one in bars 5 to 6, then it is a short step from there to say that bars 5 to 6 are a bigger version of the first four beats of the piece. It follows that the tutti entrance in bar 7 on the B-flat major chord is a “big” version of beat 2 in bars 2 and 4. Just as 5-6 are a gestural stretching of beats 1-4 of the piece, bar 7 is a gestural stretching of the rhetorically punctuating tutti hit on beat 5-6 of the piece. The ratios of numbers of beats correspond to this interpretation as well: the opening melodic phrase spans 4 beats and the ensuing tutti punctuation fills 2 beats. They are in a ratio of 2 to 1. The 2-bar descent of mm.5-6 is also in a 2:1 ratio to the single bar occupied by the Bb major tutti punctuation in m.7.

![Figure 4.5: Bars 1-2, 5-7, Short hypermeter Analysis](image)

Such hypermetrical analysis suggests a mysterious sublimation of the sarabande’s prominent features. In measures 1-4, each bar has some kind of accent on the 2nd beat, characteristic of a sarabande. Bar 5 returns to the motive and pitch level of bar 1, articulating it as the beginning of a new phrase group. The new intensified texture in m.
5—octaves, suspended without harmony—also articulates the new group. Bar 5 has the second beat accent, obviously from bar 1, but then bar 6 has a much weaker second beat emphasis. Bars 7-10 have no second beat accent at all: Where did the sarabande go?

These later bars of the opening, 5-10, can be heard as a gestural and hypermetric expansion of the earlier bars 1-4. The descent of bars 5-6 is the first beat of a 3 beat hypermeter, the tutti B-flat major entrance in a regular pulse in bars 7-8 is the second, accented beat marked *forte*, and finally bars 9-10 are the relatively weaker third beat marked *piano*, serving here to prolong the dominant until the next hypermetrical downbeat at bar 11. The disappearance of second beat emphasis on the local level shifts the perceptual focus to a larger, grander sarabande where two bars equal a beat.

Extending this hearing of Mozart’s phrasing backwards reveals the interesting possibility that the opening two bars could be heard as an accented hypermetrical “beat two”, and bars three and four as an unaccented hypermetrical “beat three.” This interpretation would imply a silent hypermetrical “beat one”: is Mozart literally composing silence into his opening phrase? Or does the first movement stand as a large upbeat to the second? Either way, a gestural hearing of Mozart’s play with expanding and disappearing elements of a phrase reveals rich potential for interpretation.
An aspect that further connects the arrival of bar 7 with the two previous tutti hits in bars 2 and 4 is that the ascending melodic line continues upward. In the tutti continuum, A goes to B-flat, B-flat to C, and C to D, the third of the IV harmony. Hearing this melodic ascent articulates a continuum of related tutti *forte* gestures, and further elucidates the impact of bar 7’s arrival.

If bar 7 is an arrival, it is not a resolution of the disquieting characteristics of the dotted and accented second beats. The extension of the opening melody in bars 5 and 6 is a play on the emotional impact of the lingering double-dotted melody in beat 2. The mystery of what exactly occupies that third beat, the question of how long the held note will last, is expanded upon here. Similarly, in bar 7, the third beat contains an element of surprise. Because this bar is tied perceptually to accented second beats in general, a perception strengthened by the fact that the downbeat melody is tied much like dotted second beats, the appearance of a third beat of IV harmony and the melodic figuration over it is startling: perceptual cues point to the possibility of moving on after the second
beat of bar 7. A full bar of IV harmony feels surprisingly long, given an accented and
dotted melodic downbeat that invokes placement on beat two rather than beat one.

Untangling that luminous arrival on bar 7 reveals a resonance between three
gestural concepts: accented (and extended) second beats, hemiolas, and arrivals on
subdominant harmony. The accent on the subdominant is particularly worthy of
contemplation: as a harmonic area, the subdominant connotes a flattening, or sunken,
space, much like an accented and elongated beat two within a three beat phrase. The
subdominant has a certain gestural quality characterized by gravitational pull. There is
something fitting in this emphasis on subdominant harmony within a movement that is
itself in a sunken subdominant space relative to the main key of the symphony. And if we
can agree that the first two bars of the piece are a hypermetric beat 2, then it is interesting
to hear them as a subdominant function, leading to bars 3 and 4. More on this below.

Perhaps the hemiolas patterns that recur throughout the movement, and especially
in the development, can be heard as the result of sympathetic resonance between an
accented beat two and a subdominant harmony, which combine to create a gutted space
into which third beats fall and disappear altogether. The development begins with a re-
assertion of the minor key call and response theme from the transition section of the
exposition. This time it is in the relative minor, D, as opposed to the C minor that
threatened a minor secondary key area in the exposition. In bar 51, the rhythmic third
beat disappears, revealing an implication of accented beat two figuration. Mozart creates
a retrogression via a cascade of unfolding minor subdominants: an ascending fifth
sequence which creates consecutive re-hearings backwards whereby iv—i morphs simply
into iv—iv—iv. This sequence sends the music falling downwards in gestural harmonic
space. Mozart arrives on E-flat minor via a common tone diminished chord in bar 50. From there harmonies appear every two beats: B-flat minor, F minor, C minor, G minor, and D minor. This is perhaps the height of drama in the movement, for not only does the $\frac{3}{4}$ meter disappear altogether but also the harmonic motion undoes the establishing and affirming processes of tonality.

If something about the gestural dominance of beat two generates the possibility for the erasure or sinking of beat three, it also creates a vast “second-beat” expanse. We have already encountered this with the hypermetric interpretation of bars 5-10 above. In corresponding measures of the recapitulation starting on bar 60 with the return of the theme in F major, the opening phrase itself disappears into its expanded hypermetrical version: it is as if all phrase structure has been stretched beyond proportion. The florid, keyboard-like 32\textsuperscript{nd} note figuration in the strings dominates the texture, erasing the expected “answer” portion of the opening phrase (bars 3 and 4, nowhere to be found in 62 and 63).

Our hypermetric reading of subdominant harmony as a second beat phenomena helps to clarify this languid stretch of gestural elaboration, which constitutes something of a secondary development. Hearing the subdominant statement of the original theme in

FIGURE 4.7: Bars 50-53, Development (Reduction)
measure 64, we can relate this harmonic move not only to the tradition of subdominant exploration before the recapitulation’s second theme, but also to the earlier arrival on that harmony in bar 7. Linking these perceptions, it is possible to hear bar 64 as the start of a hypermetric beat 2, and listening backwards, to hear bars 60-63 as a four bar first large beat. This hypermetric beat 2, starting on the subdominant statement of the theme, stretches seven full bars, including a break into the hemiola 2/4 demarcations in bars 67-70. The arrival on the dominant harmony, at double forte in bar 71, lasts only two bars by contrast. The harmonic qualities of these hyperbeats reveals a startling correspondence to a familiar harmonic structure: I—IV—V, or tonic, subdominant, dominant, as hyperbeats one, two, and three.

![FIGURE 4.8: Hypermeter of 60-72, Recapitulation (Reduction)](image)
The harmonic layer of this hearing calls for further reflection. Mozart’s invocation of the sarabande’s gestural quality transcends the local level and sounds a dialog on the structure of symphonic form, second movements, and harmonic function itself: the sarabande’s accent on beat two becomes an accent on the subdominant, itself an invocation of slow, second, symphonic movements, as well as a “second” harmony in the structure of tonal phrases. Some of the majesty and profundity of Mozart’s movement arises from this ability of the local phrase to comment not only on itself but also on the structure of tonal phrases and tonal forms. The invocation of dance to achieve this broad dialog constitutes a true instance of every-day musical gesture sublimated to speak to broad and general musical phenomena.

Foregrounding the notion of gesture offers a subtle departure from framing such observations in language regarding “surface” and “deep” structure. While I do believe we can locate commentary about the structure of harmonic motion and symphonic form within the local content of Mozart’s phrases, a gestural framing emphasizes the immediate communicative content of such correspondences between musical levels. I believe that hearing, for example, the bars of the recapitulation hypermetrically and oriented towards emphasizing “subdominant-ness” through an elongated, seven measure “beat 2” is a perception that doesn’t take the listener away from any surface level of detail. On the contrary, such a perception might locate the ear attentively to the vastness of the expanse of 32nd note figures, to the gestural uneven-ness of the hemiola pattern, and to the dynamic change to double forte when the hypermetric beat moves on to beat three where, finally, though briefly, the phrase emphasizes a dominant area. The details of the sarabande, in other words, do not disappear into an abstract space of musical
structure. In reaching this conclusion, we mirror some thoughts expressed about the Brahms “Quintet” in Chapter 3: it is not that the orchestrational leaps of the opening cello line suggest a “deeper” quality of motion found in Brhams’ harmonic structures. Rather, the two musical aspects are of a piece, complimentary, reflective. The uniqueness of musical moments is revealed through their upward and outward glances towards worlds that return their reflections.
Conclusion:

Gestural Analysis as Humanism

The mechanics of human expression naturally tend towards continuums. When training a student to sing, for example, it is at first much easier to have the student produce a glissando of tones somewhere along their vocal range than to have them match a precise pitch. That precision—listen to this note, sing it back—comes with time and training. Dance motions are similar. A trained dancer can jab their arm forward to exactly the same point in space every time if they want to; a beginner will create arm motions towards varying points in space, articulating a continuum of potential outcomes for the motion.

Envisioning musical parameters as continuums is the primary means of creating a technical vocabulary for musical gesture, and the realization that continuums are, to some extent, an untrained phenomena in the production of expression gets at the subtly radical humanism of gestural music analysis. In some ways, a gestural analysis of music undermines one of the great illusions that music (and dance) proffers: that the human body and voice can (and should) position itself with precision in time and space. I say this with immense fondness for this illusion: the reliable precision of pitch (space), theoretically down to the hertz, allows for elaborate harmonic and tonal structures to come into existence, and for lines of glorious counterpoint to somehow create unity. Similarly, the reliable precision of rhythm (time), theoretically to the nano-second (especially if, say, snapping MIDI data to a metronome grid inside a digital audio workstation, but also close enough when trying to sing “la” on the fourth sixteenth note
of the second beat of a 4/4 bar), allows for an incredible structuring of time and a rigorous, controlled placement of events.

Our traditional theoretical approach focuses on illuminating these abstract and structural perfections, and this is not out of sync with one side of the pleasures of music: when we sympathetically take in a work of music, we may experience a sensation of existing in a structured universe where somehow our bodies can feel precisely situated in controlled space-time, where events occur at exact points and with a structured pacing. But this may be where humanism (with inevitable overtones of Nietzsche) interjects: do we always believe in such a universe, or seek to inhabit one? Must expression be routed through training and control of our bodies to match an externally ideal structure? Or is there another, more immediate, level of communication, where a more imperfectly human mode of expression is foregrounded, an expression consisting of more physically rooted (untrained) continuums?

These questions become less abstract when we think about how and why we discuss and contemplate works of music. Certainly humanism is a relevant concept when thinking about why much 20th century and contemporary music can seem so “gestural”: it’s not just that composers seek ever-new modes of expression (microtonal notes between notes, rhythms of uncertain accentuation or pulse), but that human expression itself is perhaps more broadly recognized as a primary goal of music-making, rather than homage or reference to any tangible or real external structure, nature, being, or universe. Glancing backwards to earlier art music with a gestural lens may provide a window into humanistic tendencies; Mozart’s use of a flirtatious pause within a French dance, in a serious symphonic moment, or Brahms’ creation of a roaming cellist-character in the
opening of his quintet, are such moments that point towards humanistic-gestural elements that feature more prominently in much of today’s music.\(^{30}\)

Finally, gestural analysis brings a re-freshening humanistic lens to the materials of music theory. Imagine, for example, trying to learn to dance by viewing diagrams or photos of various ballet positions. Our units of harmony, for example I, ii, and V chords, are in some ways just such static snapshots in musical time. It’s good to learn the composition and name of a chord, but better to learn how it is approached and what it leads to: how it *gestures*, how it exists and moves in a continuum. How the leg swings through space *is* the dance just as much if not more than the points of articulation. While most music theory has such connective understanding as its ultimate goal, gesture foregrounds the concern immediately, stressing the contingent and temporal nature of musical unfolding. Contingent and temporal: like us, less static, structured, and perfect.

\(^{30}\) Readers can supply further examples; what follows are suggestions for hearing explicitly “gesturally oriented” compositions. One that comes immediately to mind is Derek Bermel’s “Coming Together”, which consists for the most part of alternating cello and clarinet glissandi. Michael Gordon’s use of glissandi is often quite gestural, as in “Decasia”. The sharp edges of much of Thomas Ades’ music suggest a very clearly defined gestural language, particularly in the classically referential “Piano Quintet”. Much spectral composition (by Tristan Murail, for example) borrows from a computer-generated gesture, where music is slowed down many times over to reveal partial content: this slow reveal of microtonal spectra is then orchestrated.
Works Cited

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