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# Repetition, Reception, Response: Minimal Music and the Use of Affect in Analysis

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Structures in music that are found to repeat have long received extensive treatment in the music-theoretical literature. Recurring motives and refrains, rhythmic and metric patterns, repeated measures and da capo forms, all manage to present musical material that can serve as appropriate objects of study for theorists. Yet there are some forms of repetition which are problematic and do not readily yield to available analytic methods. These include recursion, inexact repetition, and repetition generated by the listener in reception. Minimal music, due to its pared-down aesthetic, has the ability to put these rogue forms of repetition on display. Recursive processes are evident in Steve Reich's *Four Organs*; inexact repetition is used extensively by Morton Feldman in his late work; and the electronic music of Ryoji Ikeda solicits listener involvement during performance that turns steady drones into recurring musical events. In all of these, the affective response of the listener plays a key role in understanding their structure.

Music analysis typically shies away from affect; it is perhaps too close to emotion, and therefore too subjective, to be considered an appropriate object of study. Those analyses that do mention affect, do so obliquely, as in narrative analyses that draw out affect from dramatic situations purported to be enacted

through the music.[1] Though not explicitly narrative, some hermeneutic readings of musical works operate similarly, finding the cause of the affect in the understood extramusical reference.[2] As Nicholas Cook (2001) argues, both of these approaches operate by locating homologies between the work and the proposed semantic content in an apparent empirical display of independently verifiable data.[3] But without a theory of how these links work, the high degree of speculation necessary to construct such relationships seems to undo whatever objectivity might be gained through the avoidance of subjective impressions.

Affect reorients our approach to expressivity in music. Instead of searching for emotions embedded in the music, we can consider the moment of reception and begin to associate affective responses with musical structure. This approach differs from one that supposes an emotion is felt after the significance of a musical event is consciously apprehended. Affect theories propose that prior to emotion, an affective response arises as a feeling in the body; this feeling is then subject to cognitive processing and, upon reflection, identified as having emotional significance. Thus affective response, though not entirely objective, is not as

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[1] See, for example, Michael Klein's analysis of a pair of Chopin's ballades that attributes their affective quality to "fiery" codas that suggest "a tragic end." Michael Klein, "Chopin's Fourth Ballade as Musical Narrative," *Music Theory Spectrum* 26, no. 1 (Spring 2004), 30.

[2] Susan McClary describes how musical passages can cause listeners to "recoil in horror" and attributes this strong affective reaction to images of masculinity, femininity and violence portrayed by the music. "Getting Down off the Beanstalk: The Presence of a Woman's Voice in Janika Vandervelde's *Gensis II*", in *Feminine Endings: Music, Gender, and Sexuality* (Minneapolis: University of Minnesota Press, 1991), 124.

[3] Nicolas Cook, "Theorizing Musical Meaning," *Music Theory Spectrum* 23, no. 2 (Fall 2001), 172.

inherently subjective as emotional response. This quasi-objective quality of affect means that it can be considered a reliable resource for analytic insight.

Cook writes about the difficulty inherent in ascribing meanings to musical works: any interpretation is likely to be viewed as arbitrary unless there is some underlying theory of how music can be said to mean something in the first place. Therefore, he proposes, "the aim of theorists and musicologists should not be to translate meaning into words, but rather to attend to the conditions of its emergence."[4] Incorporating an affective component into music analysis is not to indulge in subjective flights of effusive poesy in order to justify a work's place in the pantheon of Western classics. Affective responses can be grounded in theory and linked to musical structures in a systematic way, thereby showing how such conditions for making meaning might arise for individual listeners. In fact, some musical structures can only be identified through the affective responses they evoke. The analyses presented here show how such responses can direct our attention to musical features that we otherwise would not pay attention to, features that might not be found in a score or transcription.

**Affect, Attention, and Interest**

In spite of the so-called affective turn in the social sciences and critical studies, a simple, working definition of affect is difficult to find. Each theoretical

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[4] Cook states that he is concerned with "the lack of an adequately theorized conception of how music might support, or not support, the meanings ascribed to it" (171). Later he adds, "In the absence of such explanation, the only safe model of the relationship between music and meaning would appear to be a Saussurian one—in other words, that it is arbitrary" (173). Ibid.

work puts forward its own understanding of what affect is and how it operates—often in thick prose that prevents it from being easily adopted by other scholars with similar interests.[5] Nevertheless, it is possible to identify in the literature some key concepts that center around embodiment, subjectivity, and perception. The picture that emerges from this speculative and experimental research is that affect is a pre-verbal feeling as opposed to emotion, which arises from reflection on experience. Our affective experience, what we feel, is tied up with what we sense we are able to do in a given situation. Affect is therefore a way of being attentive: a readiness to respond that incorporates our bodily capabilities to act and to react. In addition, it is an attentiveness that acknowledges ourselves and others as potential actors in a shared space.

A useful account of affect for music-theoretical purposes is found in Zachary Wallmark's dissertation "Appraising Timbre: Embodiment and Affect at the Threshold of Music and Noise" (2014).[6] He cites a wide range of psychological and physiological studies that provide support for his claim that in hearing a sound we imagine the physical action that produces it. He identifies this as a "motor-mimetic phenomenon," and claims that the materiality of the sound comes about through an autonomic mirroring reflex of the sound's production. The mirroring aspect is crucial, because we do not merely picture in our minds the circumstances of a

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[5] See for example, "An Inventory of Shimmers," Melissa Gregg and Gregory Seigworth, eds., *The Affect Theory Reader* (Durham, NC: Duke University Press, 2010); also, Patricia T. Clough, "The Affective Turn: Political Economy, Biomedia, and Bodies," ibid., 206-225.

[6] Zachary Wallmark, "Appraising Timbre: Embodiment and Affect at the Threshold of Music and Noise" (PhD Diss., UCLA, 2014), ProQuest (3622502).

sound's production, we also imagine ourselves producing that sound in an attempt to ascertain its character. And when we imaginatively enact the physical effort required to make the sound, we simultaneously become attuned to the similarly embodied affect that motivates its production.

The clearest example of this process is when the sound in question is the human voice. As Wallmark explains, "effectively communicating a high-intensity, high-arousal, high-potency emotion such as anger… requires greater exertion than a low-intensity, low-arousal emotion such as sadness."[7] When we hear, for example, a loud squeal, we reflexively reproduce (in our minds, generally, though sometimes kinetically) the physical actions that generate the high-intensity sound. We note the extreme tension and arousal that we would have to feel in order to produce that sound and deduce that it is the result of someone, or something, under stress. Of course, context is an important factor in then appraising the sound's affective quality. A high-intensity noise can be emitted in situations of both anguish and pleasure. Wallmark notes how a shared schema of "exertion" can be at work behind both, but whether that exertion is understood as a "bad sound" or "good sound," that is, whether the sound is interpreted as an expression of distress or joy, will depend upon the setting. The point, however, is that the set of possible affects that can be attributed to such a sound is limited. A high-intensity sound event that requires a relatively large degree of physical exertion to produce, "is much more likely to be described as *piercing*, for instance, than *delicate*."[8]

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[7] Ibid., 40.
[8] Ibid., 151. Italics in original.

Wallmark also adopts the idea that because we are so highly attuned to the voice, it is the prime reference point for any such imitative affective response in the listener. He says, "It has long been acknowledged that aspects of musical timbre (vocal and instrumental) resemble qualities of human vocality; … [timbre] can be conceived as something we do with our voices."[9] In this framework, we understand and interpret instrumental sounds as enhanced vocalizations.

Wallmark's theory is indebted to Maurice Merleau-Ponty's work on perception, building on the idea that our bodies serve as an inescapable medium through which outside stimuli are perceived and understood. While Merleau-Ponty emphasizes the idea that it is a shared body schema that allows individuals to make sense of expressive gestures, Wallmark looks to cognitive psychology and mirror neuron research to explain how affective qualities are communicated.[10]

One consequence of Wallmark's description of affect as a "motor mimetic" response to sounds in our environment is that it problematizes our ordinary notions of subjectivity and objectivity. In *Parables for the Virtual* (2002) Brian Massumi also explains that there are alternatives to the simple binary distinction between

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[9] Ibid., 26.

[10] Though Wallmark acknowledges the debt his theory of timbre hearing owes to Merleau-Ponty, he does not fully explore the ramifications of Merleau-Ponty's assertion that all sense perception is inherently embodied. In the essays "Indirect Language and the Voices of Science" and "Eye and Mind" (1961), Merleau-Ponty discusses the origins of the expressive gesture and how it is that we understand and interpret works of art against a background of shared possibilities. Merleau-Ponty contends that it is not just affective significance, but that any meaning is grounded in the expressive capabilities of our bodies that we all share. For Wallmark, the relevant idea is that we share with others a common background knowledge based on a recognizably similar body schema; we draw on that knowledge in order to re-enact the physical movements necessary to produce the sounds we hear so that we might apprehend their affective motivation.

objective and subjective, providing further arguments for why we might be disposed to understand the expressions of others in terms of our own possibilities for expression.[11]

According to Massumi, affect is the space wherein the potential for action is generated. Though he provides a very simple definition—"for present purposes, intensity will be equated with affect"—his actual discussion of affect is more nuanced and includes insights into how affect is intertwined with subjectivity and action.[12]

Massumi's concept of intensity has to do with the possibility of action in a given situation. He is careful to qualify the sort of action he is considering: an act that is not exactly premeditated, nor an unconscious reflex. To explain, he gives an example of a soccer match and describes how the boundary between subjectivity and objectivity is not clear in this context. Recalling the work of Bruno Latour and actor-network theory, Massumi notes that although a player may kick a ball, it is a mistake to consider the ball the object and the player the subject. The ball, he says, is a "part-subject," the organizing principle: "The ball arrays the teams around itself" and is the locus of change in both teams' scoring potential as its position moves about in relation to the goals at either end of the field. In this manner, "the ball moves the players." The player, then, becomes a "part-object" that is put into "a state of intense readiness for reflex response." What is affected by the player's kick,

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[11] Brian Massumi, *Parables for the Virtual* (Durham, NC: Duke University Press): 2002.
[12] Ibid., 27.

then, is not so much the ball as the state of the game.[13] Here, the conventionally understood categories of subject and object are replaced by varying propensities of affecting and being affected. And it is from such a framework that Massumi derives his concept of affect as intensity with respect to the propensity for future action. Thus, he shows affect to be a property that circulates among animate and inanimate objects alike. And the degree of readiness to enact a change of state at any given moment is the quality he considers intensity. That intensity, or affect, is then transmitted among participants in the course of shared activity. Notice in this analogy that affect is not strictly an involuntary physical response. Perception of affect and response to affect (in a way that Massumi does not make entirely clear) appear to be bound together in the moment in which it emerges. What players are attuned to moment to moment—the position of their bodies, the location of the ball, the state of the game—determines to a large extent what they are affected by. In this model, the phenomenon of being affected is not entirely a passive one.

Massumi goes on to say that, "the players, in the heat of the game, are drawn out of themselves."[14] This sounds very much like the common notion of "losing oneself," or what Mihaly Csikszentmihalyi calls flow: "intense experiential involvement in moment-to-moment activity… forgetting time, fatigue, and everything else but the activity itself."[15] What the player feels in such a situation, Massumi claims, are possibilities for action: "The player's subjectivity is

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[13] Ibid., 73.
[14] Ibid., 74.
[15] Mihaly Csikszentmihalyi, "The Concept of Flow," in Flow and the Foundations of Positive Psychology: The Collected Works of Mihaly Csikszentmihalyi, (Dordecht: Springer, 2014): 227-238.

disconnected as he enters the field of potential in and as its sensation."[16] This helps us understand why music can be a particularly expressive medium. When we are fully absorbed in what we are doing our ordinary sense of subjectivity is suspended and we become highly attuned to the possibilities afforded us by our surroundings. This attunement lays the groundwork for Wallmark's study, describing how our own potential for vocalization allows us to take up the gesture offered by the vocalizations of another and be affected by them.

Taken together, Massumi's theory of affect and Wallmark's theory of timbre show how attunement to what we hear results in an engagement with music that is not predicated upon symbolic systems of meaning. The perceived directness of musical experience is a result of our personal involvement with it, an interest that is more about aligning ourselves with what the music expresses rather than attempting to unpack and translate what it transmits (a tactic that Cook claims is often used in narrative and hermeneutic approaches).

Adopting a cognitive perspective, Elizabeth Margulis (2014) considers attunement and interest in terms of neural responses to stimuli, specifically, repeated stimuli. Such responses can be experienced as pleasurable, as in hearing a favorite song, or unpleasant, as in the case of "earworms" and overplayed recordings. Her observations about musical repetition and perception are grounded in neurobiology: "broadly speaking, musical repetitions push processing down from the more cognitive, conceptual regions of the frontal cortex to motoric basal ganglia," explaining that by handing over certain mental tasks to lower levels of

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[16] Massumi, *Parables of the Virtual*, 74.

awareness, a listener's attention can then be transferred to different levels of structure.[17] She also explains why familiar music is considered pleasurable by citing studies that employ brain-imaging technology to identify which parts of the brain are stimulated by various sensory data. These studies show the sections of the brain that are associated with emotion are more active when exposed to familiar, rather than unfamiliar, music.[18] While Margulis also discusses cognitive and emotional responses to music, her main purpose is to bring in findings from the field of neurobiology to broaden our understanding of how and why we are affected by repetition.

A central component of Margulis's work on repetition is the significance of interest as a response to music.

> I would submit that interest is an important part of our emotional response to music, and that repetition facilitates the interest response. To my knowledge, the notion of interest as an affective response to music has not been deeply explored. Much has been made of emotional responses to music that entail sadness or happiness or some such feeling, yet often my own involvement with a piece, although deeply engaged, consists not of such feeling-states, but rather of a kind of committed and sustained interest.[19]

Margulis is right that interest is rarely mentioned in contemporary literature on affect. A notable exception is the work of Sylvan Tomkins, who does, in fact, define interest as one of nine fundamental human affective responses.[20] For Tomkins,

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[17] Elizabeth Hellmuth Margulis, *On Repeat: How Music Plays the Mind* (New York: Oxford University Press, 2014), 74.
[18] Ibid., 63.
[19] Ibid., 18.
[20] Tomkins research in psychology from 1960s was rediscovered and republished by Eve Kosofsky Sedgwick in the 1990s. Tomkins classifies "interest" with "startle" and "fear," and says that these three differ only in "the rate at which stimulation or

excitement and interest determine attention, which, as Margulis demonstrates, plays a critical role in the listening experience: musical structures that are able to excite us or to gain our attention will pique our interest.

It is important to recognize the interrelationship among attention, interest, and perception in any discussion of reception. The manipulation of attention is one of the most salient effects of repetition that Margulis identifies. And, as Margulis implies a connection between attention and interest, and as it seems reasonable to consider interest an affective response, then it is logical to conclude that repetition has a large role to play in structuring a musical work's affective qualities. If this is true, then our affective response to repetition may be able to point us toward musical structures to analyze. The following three analyses explore this idea in detail.

In the first analysis, an early Steve Reich piece, I look at how affect can anchor our interpretation of a work's repetitive elements and their timbral characteristics. For example, the analysis shows how beating phenomena are perceived to be a musical component of the piece rather than an unwelcome artifact of electroacoustic performance.

The second analysis, a late chamber work by Morton Feldman, looks at how the perception of similarity and identity is linked to the work's ability to guide our attention to different aspects of structure.

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neural firing increases." The others six affects are excitement, anger, disgust, distress, dissmell, and shame. Silvan S. Tomkins, "Role of the Specific Affects," in E. Virginia Demos and Brewster Smith, eds., *Exploring Affect: The Selected Writings of Silvan S. Tomkins*, (New York: Cambridge University Press, 1995), 68.

In the third analysis, an electronic composition by Ryoji Ikeda, I examine how the piece calls for an embodied approach to music reception, one that recognizes the role of affect in perception. Such an approach is necessary in order to notice the presence of recurring musical motives and account for the unexpected reconfiguration of the listening space that the work provides.

**Steve Reich, *Four Organs* (1970)**

*Four Organs* is an uncompromising expression of Reich's aesthetic vision—twenty minutes of a single E dominant 11th chord, voiced within a single octave (B3–B4), with an added E1 in the bass and A5 on top. The pitches are distributed among four electronic organs and are accompanied throughout by a steady eighth note pulse from the maracas. As the piece progresses, the chord is repeated, while certain notes in the chord are held for incrementally longer durations, until, after more than 100 iterations of this procedure what was originally a pair of eighth note attacks in the first measure has become a 265-beat behemoth that takes over a minute to complete its cycle of building up and thinning out.

Rather than the exact repetition of musical material, *Four Organs* is the result of a repeated lengthening procedure whereby each measure is an augmented version of the previous one. The E11 harmony is built up and taken apart a few notes at a time: after each iteration of the procedure, select pitches are allowed to linger before the next cycle begins. Once the process has succeeded in blurring the sound of the harmony across the length of the bar with no breaks (just past the four-

minute mark), the process continues, and as the harmony is held longer and longer, the bar is lengthened accordingly.

In addition to pitches and rhythms organized into phrases, *Four Organs* also uses non-notated elements as musical content, such as registral timbre distinctions and beating due to phase differences between the instruments. It is precisely by keeping the notated elements consistent that the non-notatable features of the music begin to emerge; the changes in texture, timbre and dynamics are what articulate the augmentation process.

Margulis claims that repetition can direct our attention to different levels of musical organization: "repeated exposures [to a musical passage] triggers an attention shift from more local to more global levels of musical organization."[21] Repetition can likewise direct a shift toward subtle nuances we would not have otherwise noticed. This attention shift is one of the key findings in her book. Citing David Lidov's work, Margulis explains that when something is repeated several times, our attention is diverted: "When repetition extends beyond the three-or-four mark, Lidov postulates that it acquires a new function, that of 'textural repetition' and 'cancels out its own claim on our attention and thereby refers our focus elsewhere, to another voice or to a changing aspect.'"[22] These effects, she explains, are the result of a composer exploiting the discursive properties of repetition: as in speech, repetition automatically draws attention to paralinguistic features of an utterance, since "the content should already have been transmitted the first time

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[21] Margulis, *On Repeat*, 9.
[22] Ibid., 51.

around." Once the listener grasps the procedures at work, attention can be directed away from "what is directly captured by words and toward what is revealed by the structure, prosody, rhythm, and tempo of the words."[23] It follows, then, that when confronted with the ongoing repetition of certain musical elements, we cease to notice them and begin to consider more closely those aspects of the music we normally would consider secondary: "[listeners] engage with the stimulus at different levels, connecting them with new aspects of the same sound."[24]

*Four Organs*, with its ostensibly simple premise, provides an opportunity to experience these shifts in attention. It is the cyclical, inevitable return of the full onslaught of the harmony that allows one's attention to turn to timbre, register, and increased awareness of how the harmony waxes and wanes in each measure. As the augmentation process begins, the staggered entry and exit points of individual pitches can be heard to create their own melodic patterns. Then as the chords begin to lengthen, variations in timbre due to register come to the fore: the squeal of the high notes, the rumbling of the bass, and the full bodily assault felt when all the notes of the harmony arrive in organs 2 and 4, and then are hammered home by the delayed entrance of the tones in organs 1 and 3 (the two entrances echoing the original presentation of the harmony in measure 1 as two identical, discrete clusters). Variations in dynamics begin to arise as well: the E4 sounding alone in one voice is not nearly as loud as the deep rumble produced by the full sonority, which includes two organs playing E1 in the bass. While the notes are sustained for longer

[23] Ibid., 162.
[24] Ibid., 97.

durations, additional elements of the music become salient and the texture becomes more complex: a periodic beating pattern begins to arise among the organs, causing a disorienting rhythmic clash with the maracas.[25] Also, the entrance of the low E1s in the bass begins to take on additional weight: as the chord becomes longer, and its appearance becomes more of a slow buildup of individual tones rather than a clearly articulated simultaneity, the entrance of the bass comes to the signal the culmination of the process, after which notes begin to fall out of the texture and the process begins anew. The suspense created by this delay of the bass is what fuels the affective trajectory of this piece.

Unlike strict repetition of a group of notes or measures, which fosters familiarity and invites a kinesthetic participation through the phenomenon of entrainment, an event that is anticipated, but whose moment of occurrence is not, generates suspense. David Huron explains how suspense too, is an affective response to music. His 2006 book *Sweet Anticipation* explains the importance of a sense of anticipation in our apperception and appreciation of music. For Huron, it is not necessarily repetition, periodicity, or entrainment that bring about temporal expectations, "it is only important that…some element of the temporal pattern be predictable."[26] In the case of *Four Organs*, the predictable element is the return of the full expression of the harmony accompanied by the low E1 in the bass. Predictability, Huron argues, is pleasurable; uncertainty, on the other hand,

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[25] This beating phenomenon connects *Four Organs* to Reich's earlier phase pieces, especially *Pendulum Music* (1968), which also exploits naturally occurring harmonic periodicity as a rhythmic element.

[26] David Brian Huron, *Sweet Anticipation Music and the Psychology of Expectation* (Cambridge, MA: MIT Press, 2006), 187.

"requires arousal and vigilance," and leads to stress.[27] It is this stress occasioned by uncertainty, he claims, that is the source of tension in music.[28]

Huron illustrates this tension with an example of a man waiting underneath a second-story window for moving bags to be thrown down to him, braced and expectant, "with his arms perpetually outstretched, … rocking back and forth in anticipation," not knowing when the next load will drop. This is indeed a tense situation—and like the kinetic involvement facilitated by repetition, the heightened arousal caused by uncertainty is an embodied response, as well.

Though Huron takes a different perspective than the scholars on affect cited above—he considers anticipation to be an emotion and expectation to be a sense like taste or smell—his example of how anticipation works in music is illustrative of how music expresses affect in general, and demonstrates that one need not rely on a theory of represented emotions or of imaginary agents in order to account for its affective power. Moreover, his research allows us to suggest one of the ways in which *Four Organs* unfolds its affective character: sensing the edgy arousal in our bodies occasioned by the unpredictable onset of the harmony at its full strength, we become gripped by the stress it produces, braced for the next barrage of low bass and tense with anticipation.

The cyclical yet unpredictable character of this work asks for a particular type of attention, a focus on the sonic content of each measure that includes an

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[27] Ibid., 12.
[28] "Since stress commonly accompanies the rise of anticipatory arousal, I have chosen the word 'tension' to characterize these sorts of pre-outcome responses." Ibid., 11.

element of suspense. Such a focus may generate frustration in the inability to synchronize with its patterns; aggravation at its insistent character and unorthodox instrumentation; or, quite understandably, boredom, disinterest and impatience. In any case, engaging with the configuration of this piece is an embodied activity: it entails attending to it in a particular state of mind bound up with the affective responses it evokes. And it demonstrates that affective responses to the music do not only arise through encounters with timbre, as explained by Wallmark, but through an attunement to rhythmic patterning and periodicity, as well. Such powerful responses, so crucial to the experience of the music and built into the structure of the piece, can get left behind when analysis is limited to a consideration of notated structures located in the score. Not only does the consideration of affect open up some of these expressive qualities for analysis, it can allow for a more nuanced understanding of the cultural significance of minimalist works.

One distinctive quality of minimalism that Robert Fink identifies is how it is often at odds with music that "maintains a basic phenomenological congruence with the way we perceive quotidian bodily rhythms."[29] Though not explicit about it, Fink here is appealing to affect in his musical analysis. Minimalism's musical articulations, he writes, do not occur "within time frames listeners can recognize as 'normal' or 'human.'…Tension and release are pursued on a scale that far outstrips the ability of the individual human subject to imagine a congruent bodily response."[30] Instead, the rhythmic gestures and structural arcs of minimalism are

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[29] Robert Fink, *Repeating Ourselves* (Berkeley: University of California Press, 2005), 44.
[30] Ibid., 44-45.

those of mechanized industry—in Fink's vivid language, it is "the music of machines, androids, and cyborgs."[31] Fink is right: we rely on a human scale in order to gauge the magnitude of musical structures, and machine imagery serves as a common trope in music criticism's encounter with minimalism.[32] But upon closer inspection, and careful attunement to our affective response to the music, it seems as if what Reich is doing is problematizing precisely this of question of the human element in performance.

Fink points out that we rely on a human scale in order to gauge the magnitude of musical structures, a claim substantiated by Wallmark's research on timbre, and that we understand any musical phenomenon by relating it to our own potential for action. In the case of *Four Organs*, as the chord tones begin to be stretched out far longer than the duration of a single breath, there is a clear sense that they are not of human origin. Similarly, the insistent swoosh of the maracas can also sound non-human, especially at the beginning, when counterpoised against the crisp articulation and dynamic, syncopated rhythm of the full harmony in the organs. These early measures present an easily entrainable, catchy, double pulse: a very corporeal gesture. But the groove initiated in the organs is not answered by the maracas. That bouncy, human energy is held in check by the maracas' detached, unwavering production of steady eighth notes. Yet in live performance, gazing at

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[31] Other "non-human" associations might be to the cosmic and infinite, or to the microscopic and infinitesimal. The point here is that the human/other-than-human contrast is discerned affectively.

[32] Rebecca M. Doran Eaton, "Marking Minimalism: Minimal Music as a Sign of Machines and Mathematics in Multimedia," *Music and the Moving Image* 7, no. 1 (Spring 2014), 3-23.

the maraca player (set center stage in accordance with Reich's instructions), the listener is made quite aware of the human effort behind the sound. The contrast between these two modes of interpretation comes to the fore towards the end of the piece, when the buzzy, electronic quality of the organs seems to overwhelm the harmonic content: what was the source of the metronomic pulse at the beginning ends up providing a human dimension to the music. Clearly, the maracas play an important role in the work's reception. It seems as if Reich is indicating the differences, or perhaps the similarities, between mechanical replication and human virtuosity in performance.

It would not then be mere conjecture to say that by eliciting a sense of awe in the face of unstoppable mechanical movement *Four Organs* thematizes the human response to long-term, large-scale process. The work allows us to examine our modes of attention, that is, our attunement, through embodied responses to a mechanized process of repetition and predictability, and to discover within that process moments of lyricism, exuberance, anticipation, bewilderment, and exaltation. While this may at first seem like an exercise in cultural critique, offering a reading concerned with the identification of social and cultural meanings symbolized by the work's musical structures, my intent here is to show how such interpretative description can be grounded in a demonstrable affective response that is not dismissible as mere subjective emotion, but that inheres in our embodied engagement with a particular piece of music.

**Morton Feldman, *For Samuel Becket* (1987)**

Morton Feldman is not considered to be a minimalist composer, nor is his music generally what is referred to when people talk of repetitive music, but his late work typically makes use of minimal materials, often built around simple repeating figures.[33] The overall effect of these repeating figures, however, is much different than their effect in Reich's work. In a sense, Feldman's 1987 composition *For Samuel Beckett* is the opposite of *Four Organs*. The inhuman force of endless augmentation and relentless pulsing in Reich's piece is replaced here by endless variation and a studious avoidance of any pulse whatsoever. While some may hear it as random, Joseph Dubiel finds Feldman's music to have a "hand-made" quality.[34] This is an apt description: the subtle but distinct shifts in tone and texture at regular intervals belie a decidedly human intelligence behind them. Nothing in this piece feels mechanical, nor does anything feel unformed or wild. As Dubiel writes, "something extremely delicate and fussy is going on." Though Feldman has notably

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[33] Writing in *The New Grove*, Steven Johnson describes Feldman's late style as a combination of the "austere textures" of his earlier music with "literal and varied repetition" consisting of "individual motifs or small groups of gestures." Steven Johnson, "Feldman, Morton," *Grove Music Online*. *Oxford Music Online*. Oxford University Press, accessed September 21, 2014.

[34] Dubiel, Joseph, "Uncertainty, Disorientation, and Loss," In Andrew Dell'Antonio, ed. *Beyond Structural Listening?: Postmodern Modes of Hearing* (Berkeley: University of California Press, 2004), 186.

claimed that he does not "push the sounds around," the music here is carefully controlled throughout.[35]

The distinguishing feature of Feldman's brand of repetition is that it is not exact. Melodic and harmonic intervals and their inversions recur with regularity, as do particular sonorities and timbres, but rather than exhibiting strict, periodic recurrence, the musical elements instead simply reappear, and they do so with enough of a singular identity that they are often perceived as being repeat appearances of the same thing.

This play of similarity and recurrence is not easy to describe in the neuro-scientific terms favored by Margulis. There are no refrains or entrainable pulses to engage motor circuitry, nor are there any consistent patterns that can be processed by the brain at lower levels of awareness. Compared to the Reich, Feldman's piece expresses rhythms and cycles of a much more ordinary, everyday human scale than those found in *Four Organs*. Starting an analysis with a consideration of the affective properties of the work can help us to home in on this very distinctive character of Feldman's work.

Predicting a listener's affective response to such a complex, thickly textured stimulus requires a greater degree of speculation on the part of the analyst than theorizing the effects of the sudden onsets and strict pulsing of *Four Organs*. We are no longer talking about the simple, fundamental affects identified by Tomkins, such as surprise and excitement. Stark contrasts produce primal responses in listeners; it

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[35] Morton Feldman, *Give My Regards to Eighth Street: Collected Writings of MortonFeldman*, (Cambridge, MA: Exact Change, 2000), 143.

is easy to identify a sudden loud sound in the music with a startled reaction and label it "surprising." With subtler contrasts, such links are not as self-evident. Whether a sonority is perceived as dense and rich or harsh and dissonant calls on a variety of contextual factors, both personal and social. Nevertheless, it *is* possible to say that *For Samuel Beckett* affords a particular experience of attentiveness and concern that can help us address the style of repetition exhibited by this music: the use of recurrent musical gestures that often seem to be instances of repetition, but in fact are not.

Two sonic qualities present themselves at the outset of this piece: dissonance and density. The texture, though hushed, is very thick. Neither polyphonic nor homophonic, the voices are interwoven with multiple crossings such that no one voice ever comes to dominate. Separate blocks of sound––which nearly, but do not quite, divide the ensemble into strings, winds, and brass––compete for attention and blur into one another. Measures 50–54, a repeated five-bar section of music, provide a good example of this construction (Example 1). We hear three sustained tone clusters come in at staggered intervals, succeeding and overlapping one another to form slightly uneven patterns. In this passage, the bassoons join in the cluster played by the brass, but otherwise these three harmonic blocks are distributed respectively to the three separate wind, brass, and string sections. Alternating pitches in some of the voices cause the blocks to vary slightly with every one or two iterations: some pitches are retained while others move on to form new intervals. This creates a back-and-forth swaying among and between the different harmonies, a swaying that might perhaps seem totally random were it not for the

eerie deliberateness with which it proceeds. Piano, harp, and vibraphone comprise a fourth instrumental group that plays a distinctly percussive role: the simple patterns in these lines are not dissimilar to the alternating notes in the other voices, yet—to borrow a term used by Catherine Hirata—the notes "tick" away in their own time stream, neither entirely indifferent to the blocks of sound moving around them, nor joining in with any of them.[36] This punctuating, ticking quality provides a distinct contrast to the gentle onsets and sustained tones in the winds, brass and strings.

These sounding groups of instruments continue to change shape by shuffling around the orchestration. Thus the timbres and textures are varied as the piece unfolds, but always maintaining a small set of distinct sound masses that can be heard to alternate, interrupt, and play past one another. Change occurs steadily, perceptibly, though slowly—generally with little fanfare, but not always. A higher high note or a lower low note in the overall sound mass can serve to introduce altered configurations of instrumentation, rhythmic patterns, and simultaneities.

The repeated measures 68-72, shown in Example 3, reveal slightly different groupings of instruments as the individual pitches shift to form alternate simultaneities. The assembly of these measures can be described in identical terms

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[36] Describing the Feldman piano piece *For Bonita Marcus*, Hirata writes, "I find that the E♭s begin to seem…in a world of their own, gently ticking." Catherine Hirata, "G Maybe-To G#," *Perspectives of New Music* 43/44, Vol. 43, no. 2 - Vol. 44, no. 1 (Summer, 2005 - Winter, 2006), 391.

as those used for measures 50-54. Juxtaposition makes the difference between these two passages perceptible to the listener. But right before these measures, in measure 65, the flutes leap up to C6, the highest note in the piece so far. At the same time, the second trombone jumps down to A1, sounding the lowest note of the piece and creating a new bass floor below the tuba. Beyond its differentiation through simple juxtaposition, the new passage seems to have been heralded by this sudden call from the winds and brass, which adds weight and import to the music that follows. In addition, these high and low notes are made to stand out even further as they themselves are preceded by two measures of rest in the strings and most of the brass (mm 63-64, Example 2). As a result, the passage at measure 68 arrives as a new musical space rather than a barely distinguishable variation of what has come before.[37]

The redirection and refocusing of attention accomplished by that C6, while not disambiguating the orchestration, allows the listener to notice that these murky blocks are not entirely without individual character of their own. Sticking with a single scheme of instrumentation, pitches, and durations, a dense timbral and harmonic scheme can become the foil for an equally dense, but no less distinct, arrangement that appears fresh and unique. Moments such as these serve to maintain our interest and provide just enough of a directed, linear flow to allow us to remain engaged and to continue attending to the unfolding of the piece.

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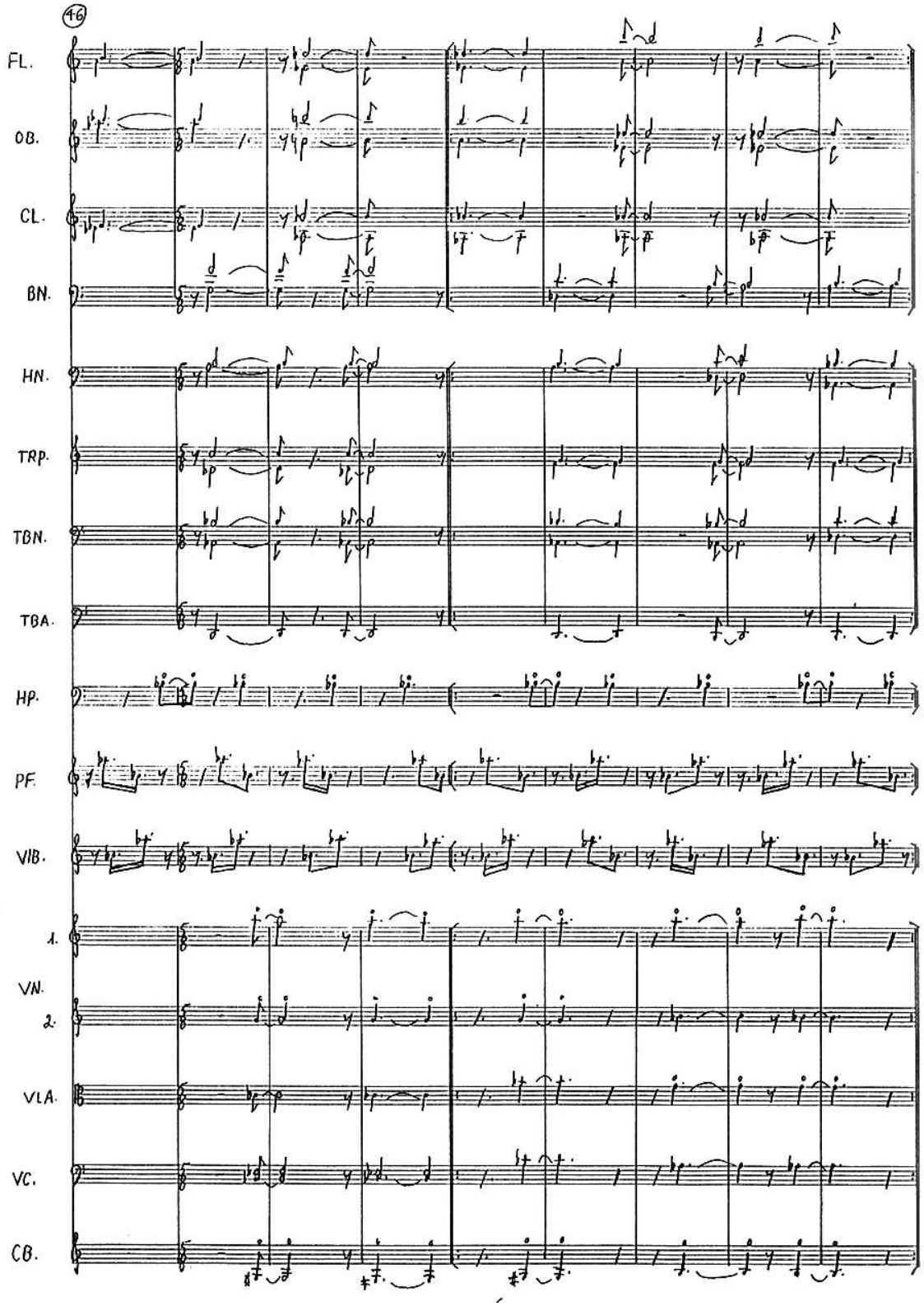
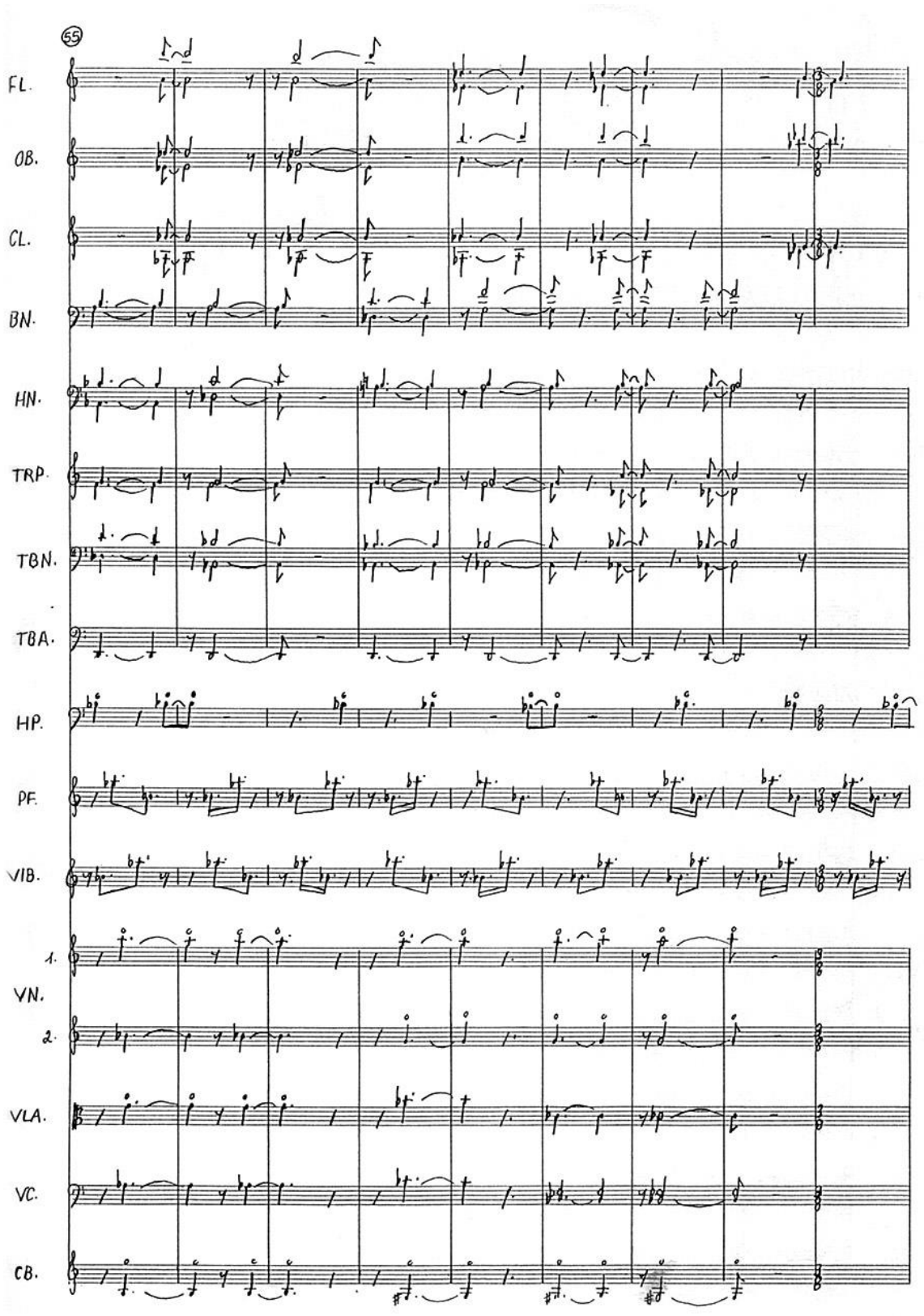
[37] This idea of space will be developed in a more literal fashion in the following section on Ryoki Ikeda.

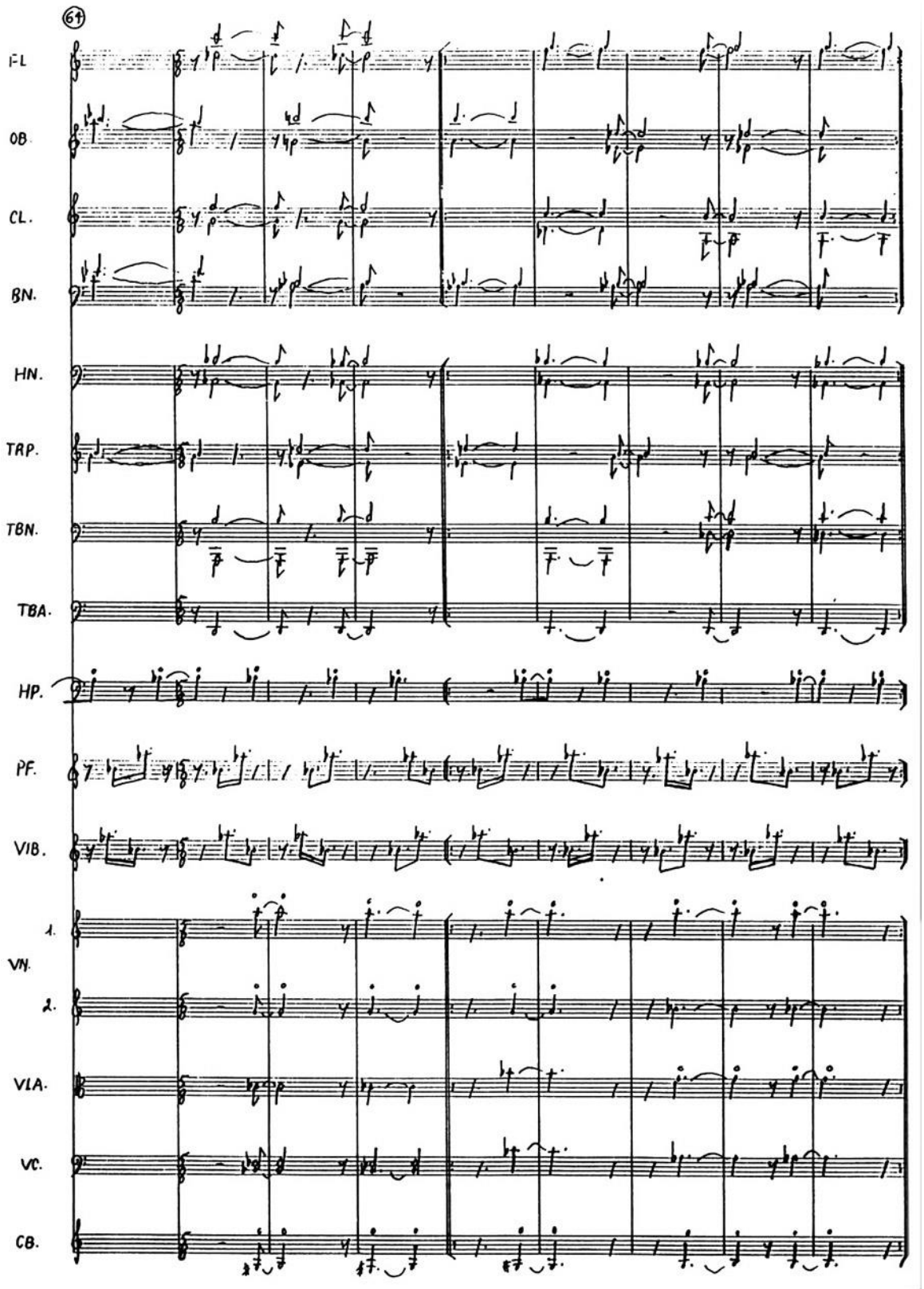
This work, however, does not consist solely of subtly varying chunks of music. There are also certain moments that, within such a uniform context, stand out as surprising, if not jarring. For example, in measure 293 there is an uncanny feeling when, after twenty minutes of music has passed in the manner described above, there is no other sound but that of the strings—all other instruments drop out. This occurs twice during the piece: in measures 293 and 428. Although a sense of relief accompanies the sudden respite from the complex texture, it is mixed with a keen awareness of something gone wrong, of something being left out, and the concomitant desire for it to return. The sense of loss combines with a sense of foreboding—surely such a radical change must auger something important—and our attention is galvanized: we are no longer content to simply occupy the particular sound space offered at that moment by the composition. Instead our attention shifts: there is an adjustment of our comportment as we refocus on the linear sequence of events in an effort to discern to what will happen next. As with the flute's C6 mentioned above, these moments are carefully constructed to engage the listener affectively—they are alerts to draw our attention away from timbre and sonority and back to temporal change.




Example 1. Morton Feldman, *For Samuel Beckett*, mm 46-54.




Example 2. Morton Feldman, *For Samuel Beckett*, mm 55-63.




Example 3. Morton Feldman, *For Samuel Beckett*, mm 64-72.

This linearity, however, need not occasion the search for a storyline, as a narratologist might be wont to do.[38] Subtle indicators of formal divisions definitely mark this piece as a unitary work, designed to be experienced as such (that is to say, in its entirety, as opposed to the auditing of only particular selections or moments). But to force the music into a teleological framework is to overlook the unique affective experience it offers the listener, that is, how it plays with our experience of interest and attention and, even more, how it manages to draw attention to our attempts to construct form as the piece unfolds.

One way it does this is through that "hand-made" quality, the human scale of the subtle changes which mark the piece's progression. There are familiar, human activities with which these sounds have a close affinity: breathing, for example, or the hesitant swaying associated with a slow, lumbering gait. Neither of these motions are necessarily symbolized by the music, but activities such as breathing, swaying, or the purposeful molding suggested by a description such as "hand-made," serve as plausible examples of affective resonance and demonstrate how such resonances influence how we are apt to hear and to analyze such music.

As is the case with individual breaths, the pitch clusters of *For Samuel Beckett* need not arrive at exact intervals or sound exactly the same for them to be perceived as proceeding at a regular and steady pace. In fact, it is the near-

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[38] See for example the collection of analyses in Klein and Reyland (2013) that understand non-linear aspects of musical structure in relation to a norm of linear narrative archetypes. Michael L. Klein and Nicholas Reyland, eds., *Music and Narrative since 1900* (Bloomington: Indiana University Press, 2013).

repetition that allows the listener to be affected in this manner. Whereas, according to Margulis's theory, exact repetition would cause our attention to move *away* from the repeated material, the inexact repetition invites our attention to turn back again toward the continual re-emergence of these blocks of sound. Dubiel, describing the rhythm in the beginning of Feldman's piano piece *For Bunita Marcus*, explains this phenomenon:

> What we're likely to hear, then, are a lot of measures … that almost match one another, but not well enough for us to gain any clarity—and, now and then among them, one measure … that is obviously enough different to leave the other ones sounding even more strongly but indistinctly alike. And this means that the question of whether the measures all are alike as instances of *some* rhythm will remain fresh for us, will keep being renewed.[39]

Are we always to listen, then, for the adjustments in timing, timbre and pitch that such moments herald? Will we be frustrated by differences that we find uninteresting, fascinated by ones that strike us as revelatory, or will we have a reaction somewhere in between? What do we listen for and for how long? Much of the affective power of Feldman's late music comes from the listener's consideration of precisely these types of questions. And maybe the gesture such music solicits is a turning toward the sound, a leaning in, a tilting of the head—or whatever gesture allows the listener to best perceive the sound qualities sought in the moment, perhaps even an effort to sit very, very still. Here affect, rather than being strictly reactive and involuntary, can be viewed as an embodied response of engagement. Wallmark borrows a term from Merleau-Ponty to describe this style of engagement:

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[39] Dubiel, "Uncertainty, Disorientation, and Loss," 185.

"bodily attitude."[40] This refers the corporeal stance taken up in the act of perception, one that provides what Merleau-Ponty describes as an "optimal" perspective on the object.[41] If we do choose to lean in or tilt our heads or remain motionless, the adjustments in our bodies are adjustments of our comportment and an expression of our engagement with the music. These "attitudes" reveal engagement as an act of embodied perception: affect as conveyed by an expressive gesture.

Clearly, *For Samuel Beckett* does not induce the same sense of anticipation as does the Reich piece, nor does it provide us with an entrainable beat or recognizable rhythmic pattern to engage our motor circuitry in the manner discussed by Margulis. Yet we are affected by it nevertheless. As with the vocal qualities of timbre discussed by Wallmark, our embodied response to Feldman's music is due to our interest in, and attunement toward, those things we encounter that exhibit human rhythms. It is like attending to the breath of someone who is sleeping—an infant, perhaps, or a loved one. There may be no expectation of any significant change in the breathing, yet one might still find oneself listening to each breath, with varying levels of attention, and with the simple awareness that comes with care. It is difficult to imagine how the repetition in *Four Organs* could solicit a similar listening style of attentiveness; a different sensitivity is at work, both in the music and in ourselves as listeners.

By providing subtle variation throughout the course of a very long work,

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[40] Wallmark, "Appraising Timbre," 24.
[41] Merleau-Ponty, *Phenomenology of Perception*, 352.

Feldman's piece affords the listener an experience not only of the dark richness of orchestral timbres, but an experience of the nature of our own attention and patience in the presence of flow and transformation. Being attuned to this music means being attuned to our own moment-to-moment responses as the work undergoes its myriad changes within its own neatly delimited range of possibilities. The shifts in pitch, timbre and texture, as well as unexpected events, such as lone high notes or measures with only strings, are spaced far enough apart that each one promises to be significant and draws the listener along to the next passage of music. Variations heighten awareness while singular moments rivet the attention.

This is the self-conscious engagement afforded by *For Samuel Beckett.* If we care what Feldman has wrought, if we care about what experience this work has to offer us, then we soon find ourselves drawn along with the music, not through any particular structural conventions, but by the nature of how we are in the world and how we approach the things we encounter in it, in particular, those things which bear a particularly human, "hand-made" stamp.

Affect helps us understand how a musical work, even when it does not exhibit a hierarchical structure or any discernible teleological plan, can still draw us in, sustain our interest, and open us up to new affective experiences we may not even have a name for. Small wonder that Vladimir Jankélévitch believes music has an ineffability that cannot be verbalized: "Music was not invented to be talked about."[42] He may be right—this is surely nothing less than an admonition to "Shut

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[42] Quoted by Steven Rings in Michael Gallope, Brian Kane, et al., "Vladimir Jankélévitch Philosophy of Music," *Journal of the American Musicological Society* 65, no. 1 (Spring 2012), 218.

up and dance!"—but *how* it is that music appears to us as ineffable certainly deserves a word or two.

**Ryoji Ikeda: " - " [Minus] (1996)**

The tremolo lies at one pole of a range of notated repetitive practices that extend out to the *da capo*, all of which, Margulis tells us, share a "fundamental connection."[43] As a textural element, tremolos play a large role in the minimal electronic music of Ryoji Ikeda, in particular, on his album *+/-* (1996). They are produced in a novel way compared to the ordinary notated tremolo. Instead of being produced by the direct action of the performer, they arise as a result of interference patterns among reflected waveforms, and so are contingent upon the location assumed by the listener.

Furthermore, it is not simply the listener's location relative to the sound source that is critical, but the listener's position within the listening space itself that is key. The music she hears, therefore, is a result not only of the immanent structure of the work but of the immanent structure of her surroundings as well. As the listener's position changes, the texture changes and sounds appear to fade in and fade out. For these fugitive sounds to recur, the listener must retrace her steps. Thus, we are presented with a category of musical repetition that arises out of the physical characteristics of the sound materials, the perceptual capabilities of the listener, and the acoustic properties of the performance space. Such repetition

[43] Margulis, *On Repeat*, 5.

cannot be identified by looking at a score or a transcription, or even by analyzing the signal inscribed in the recorded artifact, but only by participating in the active listening process through which these tremolos become manifest. According to Massumi, affect is a propensity for action: what we are affected by depends upon what we are able to do. The electronic music of Ryoji Ikeda demonstrates this idea in a surprisingly direct way.

Ikeda composes electronic music; his works are his recordings. Like other electronic music artists, he produces his tracks using minimal sonic elements, such as tones produced by a sine wave generator. Such generators produce pure tones whose waveforms, when reflected off walls and large objects, create beating patterns that can reinforce, attenuate, or even cancel out those very tones. Whether a tone is ultimately heard, whether it is steady or pulsed, and if pulsed, the frequency of its oscillation, depends upon that listener's exact position within an audition space. These pulsating beating patterns are the source of the perceived tremolos in Ikeda's music.

Traditionally, it can be said that both stereo recordings of live concert performances and multi-track studio productions aim at an accurate reproduction of a musical event and a recreation of the acoustics of a particular performance space, whether real or imagined. Verisimilitude is a key aesthetic value. To achieve this effect, the end listener is assumed to remain stationary facing a pair of loudspeakers while the instruments and vocals appear to be projected in front of her in a three-dimensional space, what is termed the "sound-box" by Dockwray and

Moore (1993).[44] If the listener decides to move about the room, her perceptions regarding directionality will change relative to her position, but the location of the sound source will remain constant relative to the listening space. If she were to move to the right of the loudspeakers, she would hear the source to her left, and conversely, if she were to move to the left of the speakers, she would hear the source to her right. In either case, all other aspects of the sound signal would remain unchanged—she would still hear the same music, just from a different angle.

Something very different occurs when hearing the track titled "-" from Ikeda's album *+/-* (1996): the listener is made aware of the audition space itself. Rather than documenting a live performance, as might be typical of a recording of Reich's or Feldman's music, Ikeda's works call attention to the "live" performance aspect of playing a CD.

The recorded track itself is simple enough to describe. Consisting solely of electronically generated sine waves, it begins with a five-second fade in of what seems to be a gently wavering, high-pitched tone, but is actually composed of two frequencies sounded together, tuned to B5 and B♭5. After thirty seconds mid-range tones enter: B4, F5, and an indistinct wavering tone in between: another composite of two frequencies, tuned about a quarter-tone apart and centered around D5. The high- and mid-range tones continue to sound together until the high pitches fade out around the 1'20" mark. Thirty seconds later, the bass register opens up, sounding A1 and A2, along with a rumbling A0, and an added G3 that is masked by the louder

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[44] Ruth Dockwray and Allan Moore, "Configuring the sound-box (1965–1972)", *Popular Music* 29, no. 2 (2010): 181-197.

frequencies below it (but that still plays a role in the emergent interference patterns). For the next couple minutes no new tones are introduced, and though it seems the apparent slow tremolo of the murmuring bass speeds up and slows down, there is no large scale change in the music until the bass tones begin to fade out around 4'30". The high-pitched tone returns around 5'20"—again, a composite of the same two B5 and B♭5 frequencies. The closing section consists of just the high and mid-range tones sounding together. Eventually, the higher tones fade out at 6'10" leaving only the mid-range set of frequencies, which then terminate abruptly, ending the track at 6'30". Because there are only a few tones introduced in small groups, and because each group occupies a pitch level that is very distinct from the others, the listener has little trouble identifying and keeping track of these different strata.[45] To a stationary listener, the track is minimal in the extreme: nothing much happens. The piece's full range of expression only becomes apparent when the listener discovers how her own movements drastically affect the shape of the sounding music.

Localizing the source of a pure sine wave tone is not as easy as locating the source of a more complex sound. The interference patterns created as the wave bounces off walls in the listening space can make it seem as if the tone emanates from locations other than the loudspeakers. Thus, the relative position of the listener not only affects the perceived amplitude and rate of beating, but also the

[45] For an explanation of how the perceptual system groups sounds together in separate streams, see Albert Bregman, *Auditory Scene Analysis*, (Cambridge, MA: MIT Press, 1994).

apparent source of the sound, which may seem to be coming from a far corner of the room, for example, or directly beside a listener's head. In fact, in Ikeda's music, it may seem as if the music had multiple sources throughout the auditory space.

The effect is striking: even when the music exhibits no change whatsoever in either the recorded signal or its playback, a slight shift of the head can result in a dramatic change in the sound perceived by the listener. Tones may get louder, become attenuated, or exhibit beating patterns. At first, it is not at all obvious to the listener that some of the changes she hears are due to her own movements and the properties of the space. She might well assume that such marked changes must have been deliberately engineered into the recording. It takes a few experimental head turns to determine the causal relation between her own movements and the musical sounds. But once the connection is established, an entirely new musical experience opens up before her. To explore the music, the listener must use her body to explore her surroundings. Her interest piqued, the listener may soon find herself walking about in order to discover different sounds in different places.

As the listener encounters these shifting tones while moving through a room, she may also become more aware of walls and corners as boundaries of the performance space, and of her own position in relation to the apparent sources of the musical sounds. Tones get louder and softer as she changes her position and new sounds in the mix emerge from unexpected locations. These undulations in the sound material are just as intense as the maracas in *Four Organs*, and just as much a part of the composition as well, but with "-" the listener can decide to move and adjust her body in order to escape that intensity, or, conversely, to increase it.

Whichever movements or gestures she chooses to make depends upon how she is affected by what she hears. This work affords a novel experience of sound, space, audition, and their interdependence—linking music perception to affect and action in a direct and moving way.

This is a very different musical experience than listening to a recording while sitting still and hearing the output of processing effects that were added in the studio; when playing the track "-" the listener can walk up and encounter a tremolo at the particular place in the room in which it occurs. With respect to the perceived flow of music, she hears a new texture introduced that was not there before. In taking a step back, she will hear the pulsing slow down and the sound revert back to a sustained tone. These musical features do not exist at time points in the recording but at spatial points dispersed throughout the listening area. It is as if the beating sound object is simply hanging suspended in a certain place in the room, waiting to be approached.

If the listener likes the effect, she can linger, if not she can move away. Thus, a too-calm passage of steady tones can be enlivened by a turn of the head or a step to the side, and the tension induced by a too-active tremolo can likewise be resolved through a similar purposeful movement. By repeating one of these movements, the effect recurs; she can even introduce a beat into the music. As an example of repetition in music, this is a remarkable one. Repeating structures—tones, tremolos, and beats—are afforded by the music, but not realized until they are taken up by the listener.

This is not simply a conjuring trick: the tracks presented on *+/-* are not about recreating the sound of an absent object so precisely that it appears to be in the room—as in, say, old stereo demonstration records of locomotives and Ping-Pong balls—nor is it about the immersive studio production effects that allow record companies to claim "The music swirls around you."[46] Rather than sitting passively and having the sounds come to her, the listener herself moves about to actively encounter the distinct sonic elements that are available for audition in different parts of the room. The room then is filled with sound in a way that articulates and gives substance to the space itself. The space is not simply an empty medium through which sound flows to the ears of the listener; rather, the sound seems to inhabit the space with the same presence as the listener herself.

Whereas in the Feldman piece we are affected enough to relate the music's rhythms with those of our own body—perhaps even adjusting our body in an effort to better perceive experience offered by the music—Ikeda's piece, if indeed it succeeds in engaging us, calls upon us to move our bodies through the listening area, considering new aspects of the space we inhabit while at the same time exploring new ways of inhabiting that space. This type of physical engagement with the music points to a shortcoming of theories of affect that emphasize the element of automaticity: they overlook affect's basic exploratory, investigative nature that leads us to try out various ways of inhabiting space—the physical adjustments and possible comportments that affect brings to bear on the music at hand. Entrainment

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[46] Capitol Records slogan (1958), in Tim Anderson, *Making Easy Listening: Material Culture and Postwar American Recording*, (Minneapolis: University of Minnesota Press, 2006), 147.

facilitated by repetition is just one way such embodied reactions can be realized by a listener. These works show that there are others, as well.

Our understanding of "-" is grounded in our embodied experience of it, and thus our attunement toward it: the mood in which we approach the music and the affect that it evokes in us. Ikeda's music foregrounds this interaction between performance and reception in a very literal way and makes us aware that listening is an embodied practice that directly affects how we perceive our surroundings.

This interaction illustrates Massumi's contention that affect is a propensity for action. In Massumi's soccer metaphor, both the player and the ball are at the same time "part-subject" and "part-object" in that each has a potential for affecting and for being-affected.[47] Likewise, any audition of *+/-* is a dramatic example of how the listener both affects, and is affected by, the music she hears and the space in which she hears it. Ikeda's music calls attention to the performance that takes place when we play the recording, as well as the performance it asks of us as listeners. Rather than two entities opposed as subject and object, the listener and the music participate in an event that is mutually constitutive of these roles, and their interaction articulates the space shared by both. We become attuned to our surroundings in a different way and, as a result, the understanding we have of

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[47] Massumi's model is related to Heidegger's notion of *Befindlichkeit* and modes of attunement. As David Hoy explains, "modes of attunement reveal how we find ourselves in a particular situation that both conditions what we can do and delimits what cannot be done." The situation in which we find ourselves while listening to Ikeda's music calls forth our potential to affect the music, thus engaging us on an affective level. Clearly, this is a fruitful area for investigation into the ways in which music and affect lay claim to our experience of subjectivity. David Couzens Hoy, *The Times of Our Lives: A Critical History of Temporality*, (Cambridge: The MIT Press, 2009), 27.

ourselves as listeners is reshaped. Music's expressive content goes beyond merely representing emotion, or revealing aspects of the society in which we live. Music can touch us by calling on our capacity for action, thereby reawakening us to the possibilities that are open to us within our world.

**Conclusion: Affect and the World of the Work**

In Reich's *Four Organs*, the harmony sounded by the organs is repeatedly lengthened until it achieves monumental proportions; in Feldman's *For Samuel Beckett*, combinations of intervals and sonorities are replayed several times with irregular, unpredictable variations in rhythm; and in Ikeda's recording titled "-", undulating, pulsating textures are revealed to be the auditory byproduct of the physics of sound.

Ian Quinn has noted that "process music comes to the table already digested; its challenge to the analyst-as-interpreter is precisely the minimal challenge it presents to the analyst-as-parser."[48] The repetitive aspects of the works analyzed in this paper do not offer much to parse, either. Yet the effects of these varieties of repetition are rather extraordinary and merit closer consideration. I have chosen to identify some affective characteristics of these works as a means of responding to what Quinn identifies as their interpretive challenge. By citing affect as an inescapable element of our analytic understanding of these works, I have shown how interpretation can be grounded in an affective response to the music and that

[48] Ian Quinn, "Minimal Challenges: Process Music and the Uses of Formalist Analysis," *Contemporary Music Review* 25, No. 3 (June 2006), 293.

our affective response is in fact how we begin to understand what is significant about the repetition present in these pieces. This is in accord with philosopher and literary theorist Paul Ricoeur's conception of aesthetics. Ricoeur understands aesthetics as encompassing "the full range of meaning of the Greek word *aisthēsis*," and writes that its role is to explore "the multiple ways in which a work, in acting on a reader, *affects* that reader." He concludes that "this being-affected has the noteworthy quality of combining in an experience of a particular type passivity and activity, which allows us to consider as the 'reception' of a text the very 'action' of reading it."[49] Ricoeur is describing a process in which we understand a work by engaging with it, attuning ourselves to what it has to say, and opening ourselves to the experience of "being-affected."

So the subtle, perhaps even unconscious efforts to lean in or sit still while listening to Feldman, as well as the curiosity that causes us to rise up and propel our bodies through space when listening to Ikeda, are essential to our reception of these pieces. Likewise with the Reich, when we brace ourselves to endure the inexorable cycle of screeches and rumbles from the organs, along with the non-stop sonic hail of the maracas, our tight, tense posture is a physical realization of our affective response.

Works such as these elicit from us particular modes of attunement to the music, and consequently to our surroundings, so along with their power to afford certain aesthetic experiences, we can also begin to speak of a work's social

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[49] Paul Ricoeur, *Time and Narrative* vol. 3, (Chicago: University of Chicago Press, 1985), 167.

efficacy—not via a message that is communicated to a listener, but through affording an experience of being affected, or to put it another way, by disclosing a different way of being in the world.

Roger W.H. Savage explains the importance of affect and mood in our ability to understand how a musical work can speak to us. Writing on theories of musical expression, Savage draws upon Continental philosophy to explain, "by identifying mood with the attunement of a state-of-mind to a world that we inhabit with others and filled with objects and things" music's affective quality is thereby released from "theories of expression in which expression is the representation of emotions embodied in music."[50] That is, music affords modes of attunement, which are in themselves moods, and these modes we adopt and moods we experience are what lead to the common assumption that music represents emotion (whether symbolically or mimetically). This assumption of representation is what lies behind the practice noticed by Cook among theorists and musicologists: the tendency "for critical discussions of musical meaning to assimilate it to verbal signification."[51] Hence the various decoding strategies Cook identifies that are employed to uncover the meaning in music.

The interest, anticipation, and care that we experience in the presence of musical works need not be encoded in them nor embodied by them. Works do, however, have certain structures that afford particular affective responses, and

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[50] Roger W.H Savage, "Is Music Mimetic? Ricoeur and the Limits of Narrative," *Journal of French and Francophone Philosophy* 16, no. 1/2 (Spring-Fall 2006), 122-133.
[51] Cook, "Theorizing Musical Meaning," 178.

these aspects of composition and performance can be identified and related to reception in a systematic way. While analysts cannot account for all the resonances of any particular listener's intentions and reflections, they can indicate what seem to be the organizing principles around which affective states are mobilized, or, in Massumi's terms, they can point out propensities for affecting and being-affected. Far from being an exercise in Romantic hermeneutics, addressing these affective propensities becomes necessary when confronted with musical forms and figures about which traditional music theory has little to say.

In the affective encounter between sounding music and the listener we have an opportunity to observe how both come together, through the efforts of composer and performer, to articulate a shared space and to disclose potential modes of attunement. To speak of the world a work discloses, rather than the meaning it expresses, is to free the analyst from a concern with decoding a propositional or emotional content. The recognition of affect, then, allows the analyst access to a broader range of musical phenomena than most contemporary analytical methods are able to address, and some of these phenomena, as demonstrated above, are crucial to a work's aesthetic effect.

Apprehending the significance of certain problematic forms of repetition means first apprehending their affective qualities. This is especially true if, as Cook claims, meaning does not originate within the particular forms of musical or social structures, but rather emerges out of the interaction of "music and interpreter, text and context."[52] By resisting the temptation to divide the human phenomenon of

[52] Ibid., 180.

music into separate domains of performance and reception, or the objective and the subjective, consideration of affect can provide a way to talk about aspects of the music that otherwise would have to remain mute under the remote and impenetrable rubric of “the ineffable.”

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