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Silence and sound in music and language: Sounds and non-sounds as agents of meaning

Cisza i dźwięk w muzyce i języku: dźwięki i nie-dźwięki jako nośniki znaczenia

Abstract

The article examines how silence and sound operate across music and language, arguing that so-called "non-sounds" are not absences but active agents of meaning. In music, silence structures form, tension, and expression (from Beethoven and Mahler to Cage and Feldman). In linguistic interaction, pauses organise prosody, regulate turn-taking, and index social relations (Crystal, Jaworski, Tannen, Nakane). Noise, as described by Attali, Schafer, Sterne, and Thompson, reveals the political, historical, and environmental contexts of listening. Semiotic perspectives (Barthes, Eco, Nattiez, Monelle, Chion, Zumthor) demonstrate that silence and sound serve as signs and sites of interpretive openness. The paper proposes a continuum view in which meaning arises from the interplay of sound, silence, and noise.

Keywords: silence, sound, noise, music, language, semiotics, pragmatics, soundscape

Streszczenie

Artykuł bada, jak cisza i dźwięk działają w muzyce i języku. Autorka twierdzi, że tzw. nie-dźwięki nie są brakiem znaczenia, ale aktywnymi nośnikami komunikacji. W muzyce cisza kształtuje formę, napięcie i ekspresję (od Beethovena i Mahlera po Cage'a i Feldmana). W interakcji językowej pauzy organizują prozodię, regulują naprzemienność wypowiedzi i kodują relacje społeczne (Crystal, Jaworski, Tannen, Nakane). Hałas, jak zauważają Attali, Schafer, Sterne i Thompson, ujawnia polityczne, historyczne i środowiskowe ramy słuchania. Z perspektywy semiotycznej (Barthes, Eco, Nattiez, Monelle, Chion, Zumthor) cisza i dźwięk

działają jako znaki oraz miejsca interpretacyjnej otwartości. Tekst proponuje ujęcie kontinuum, w którym znaczenie powstaje z gry dźwięku, ciszy i hałasu.

Słowa kluczowe: cisza, dźwięk, hałas, muzyka, język, semiotyka, pragmatyka, pejzaż dźwiękowy

Introduction

Sound and silence are often seen as opposites. Sound represents presence, while silence represents absence. One is expression, and the other is negation. However, in both music and language, this distinction breaks down. Silence never exists as an empty void; it has a role that shapes meaning, expectation, and interpretation. As John Cage famously said, there is no true silence (Cage, 1961). His challenging piece *4'33"* showed that silence is always filled with environmental sounds and the attentive act of listening itself. In everyday conversations, silence can carry as much social weight as words. Depending on the context, it can signal respect, hesitation, resistance, or agreement (Tannen, 2005). In both music and language, the interaction between sound and non-sound organizes communication in ways that go beyond just audible material.

The study of silence has emerged as an intriguing intersection of musicology, linguistics, and sound studies. In music, silence acts as a compositional tool, a philosophical concept, and an experiential reality. Cage's experimentalism redefined silence as an essential part of listening (Gann, 2010). Lawrence Kramer (2016) argued that silence contributes to the very 'thought of music', and Jerrold Levinson (1982) showed that pauses and rests carry emotional weight. Scholars like Jean-Jacques Nattiez (1990) and Raymond Monelle (2000) have analyzed silence semiotically, showing that it works as a signifier within cultural codes. This interdisciplinary approach not only enriches our understanding of silence but also sparks intellectual curiosity.

In language and communication studies, silence has been explored as both a structural and pragmatic element. David Crystal (1969) highlighted the importance of prosodic pauses in intonation and rhythm. Michal Ephratt (2008) outlined the communicative functions of silence, such as turn-taking and emotional expression. Adam Jaworski (1993) examined silence as a tool for social negotiation, while Ikuko Nakane (2007) considered its intercultural aspects. Deborah Tannen (2005) emphasized that conversational style depends not only on spoken words but also on the strategic use of pauses, overlaps, and silences. Together, these studies reveal that silence in communication is never just a neutral absence but a patterned and meaningful part of discourse.

Noise complicates the situation even more. Jacques Attali (1985) described noise as both disruptive and prophetic, signaling social change. R. Murray Schafer (1994) examined noise ecologically, locating it within the broader soundscape of modern life. Emily Thompson (2002) and Jonathan Sterne (2003) traced how technological and architectural changes shaped modern listening, while Salomé Voegelin (2010) promoted a philosophical engagement with listening to noise and silence. Like silence, noise resists the idea of being merely 'non-sound' and emerges as a powerful aspect of sonic culture, challenging our preconceptions.

This paper aims to synthesize these ideas by exploring how sounds and non-sounds – silence, pauses, rests, and noise – function in music and language. Drawing from musicology, philosophy, linguistics, and cultural studies, the author contends that silence and noise should be seen as active agents in communication and meaning-making, not just as absences. In music, silence creates tension, shapes structure, and invites reflection. In language, it organizes interaction, signals social relations, and expresses unspeakable meanings. Noise destabilizes boundaries and highlights cultural and political dynamics. This perspective will help readers see how silence and noise actively participate in their daily communication.

This paper's original contribution is to unite perspectives from musicology, linguistics, and sound studies to understand sound, silence, and noise as part of a single communicative continuum spanning musical works, spoken interaction, and broader sonic culture.

The paper is divided into five sections. Section 1 surveys theoretical frameworks for sound and silence, from Cage to Eco, setting the stage for the discussion. Section 2 focuses on music, analyzing how composers use silence as a structural and expressive tool. Section 3 shifts to language, showing how pauses and silences operate pragmatically and socially in communication. Section 4 considers noise as a cultural and political concept, building on the work of Attali, Schafer, and others. Section 5 situates silence and noise within semiotic and cross-disciplinary theory, emphasizing their interpretive and symbolic aspects. The conclusion synthesizes these viewpoints, suggesting that sound and non-sound together create a continuum of meaning in human expression.

By combining insights from music and language, this study challenges the idea that silence and noise are merely the absence of sound. Instead, it argues that non-sounds – similar to sounds – help shape how people organize perception, interaction, and culture.

In summary, the following sections support the claim that non-sounds – silence, pauses, rests, and various types of noise – are essential components of meaning in both music and language rather than mere absences or disruptions.

1. Theoretical frameworks of sound and silence

Studying sound and silence begins with recognizing that "silence" is never an absolute void. John Cage, a pivotal composer of the twentieth century, changed the conventional view of silence in his collection *Silence: Lectures and Writings* (Cage, 1961). His most controversial piece, *4'33"*, performed in 1952, featured a musician seated at a piano for four minutes and thirty-three seconds without intentionally playing a note. This work, often misunderstood as a depiction of 'nothingness', aimed to direct the audience's attention to the sounds of the environment and the act of listening itself. For Cage, silence is full of unintended noises – coughs, shuffling, background sounds – that become the material of music.

This rethinking aligns with broader theories of the soundscape. R. Murray Schafer's *The Soundscape: Our Sonic Environment and the Tuning of the World* (1977/1994) framed sound not just as an aesthetic object but as an environmental and cultural reality.

For Schafer, silence is inseparable from surrounding noise, forming part of the balance of sonic ecology. His concept of "acoustic ecology" highlights that we must understand silence relationally, as something that contrasts with sound, emphasizing human interaction with sound environments. Acoustic ecology, according to Schafer, studies the relationship between living beings and their sonic environment, stressing the importance of silence as a contrast to sound in how we perceive the world.

While Cage and Schafer redefined silence as a perceptual experience, Jacques Attali placed it within the political economy of sound. In *Noise: The Political Economy of Music* (1977/1985), Attali argued that noise – often confused with silence as negation of musical meaning – is actually prophetic, signaling social and cultural changes. Noise, in this sense, is never meaningless; it disrupts established norms and hints at new ones. Attali's framing connects musical structures with broader systems of power, making absence or disruption politically significant.

Philosophical aesthetics has also enhanced the understanding of silence. Levinson (1982), in his essay *Music, Silence, and Emotion*, shows that silence can facilitate musical expression, not just act as a break in continuity. Pauses create tension and release, allowing listeners to project emotions into the silence. In language, this principle holds true: silence often conveys what cannot or should not be said.

Roland Barthes's (1977) influential essay *The Grain of the Voice* situates sound at the nexus of the body and meaning. For Barthes, the importance of sound goes beyond linguistic content; it lies in its materiality – the "grain" heard during vocal expression. Silence, in this context, becomes the counterpoint that highlights the voice's sensory presence. Similarly, Umberto Eco's *The Open Work* (1962/1989) discusses how openness in art – gaps, ambiguity, and silences – encourages active interpretation. Silence thus becomes an artistic strategy to promote multiple meanings.

Theodor W. Adorno, while critical of Cage's radical approach, also engaged with silence as an important category. His writings on modern music, interpreted by Max Paddison (1993), suggest that silence functions as a form of negation within the contradiction of art. For Adorno, silence in music could represent resistance to commercial pressures and the shock of sudden breaks, yet he was cautious about silence becoming merely a decorative gesture. Adorno's idea of silence as a negation in art revolves around the fact that silence, when used in music, contrasts with sound, creating tension and thus highlighting the significance of sound in artistic practice.

Jean-Jacques Nattiez (1990) provided another influential view by drawing from semiotics. In *Music and Discourse*, he argued that music – including its silences – acts as a system of signs subject to interpretation. A rest or pause is not emptiness but a signifier, with meaning shaped by cultural codes and listener expectations. Silence is therefore embedded in the symbolic structure of music, rather than being separate from it.

Monelle (2000) built on semiotic and interpretive angles, exploring silence in his studies of musical tropes. For Monelle, silence can serve as a musical sign, carrying meanings of death, transcendence, or rupture, depending on historical and stylistic contexts. Silence is thus both structural and symbolic, acting as a vessel for cultural significance.

Michel Chion (1994), in his work on film sound, also views silence as a significant aspect. In *Audio-Vision: Sound on Screen*, Chion argues that cinematic silence is never void but always contextual, shaped by preceding and subsequent sounds or images. In film, silence amplifies awareness, increases suspense, or portrays inner experience. His perspective shows how silence interacts with various forms of communication, highlighting that silence is always relational and meaningful.

Together, these frameworks establish that silence is not simply the absence of sound; it is an essential part of musical, linguistic, and cultural meaning. Cage demonstrates that silence is filled with sound; Schafer highlights its ecological context; Attali pinpoints its political role; Levinson uncovers its emotional expressiveness; Barthes and Eco stress its semiotic and interpretive capacity; Adorno analyzes its critical function; Nattiez and Monelle interpret it as a sign; and Chion illustrates its power in audiovisual contexts. This theoretical foundation sets the stage for practical examinations of silence – first in music, then in language – before addressing noise as a cultural and philosophical idea.

2. Sound and silence in music

If silence, in theory, disrupts the binary of presence and absence, in practice, it has been a key tool for composers. Musicians from various traditions have used silence not just as a pause between sounds but as a way to shape musical structure, intensify drama, and express ideas. From the strategic pauses in Beethoven's work to the deep silence in Mahler's symphonies, and from the fragmented silences of Webern to the radical approach of Cage, the history of Western music shows how silence and sound complement each other.

2.1. Beethoven and the rhetoric of silence

In Beethoven's music, silence often plays a key role, enhancing contrast and drama. The beginning of Symphony No. 5 in C Minor, Op. 67, depends not only on its famous four-note theme but also on the rests that punctuate it. These silences carve out space within the relentless rhythm, giving the theme its power and creating tension between sound and silence. As Taruskin (2005) points out, Beethoven's use of silence is not neutral; it acts as "rhetorical punctuation," emphasizing the conflicts that shape his musical stories.

Beethoven's later works use silence even more boldly. In the String Quartet in C-sharp Minor, Op. 131, quiet moments prepare the listener for sudden bursts of sound, shaping their sense of time and anticipation. Here, silence goes beyond separating musical phrases; it creates emotional depth, pulling listeners into a realm where absence becomes presence.

2.2. Mahler and existential silence

While Beethoven used silence as rhetorical punctuation, Gustav Mahler turned it into a powerful force. In his symphonies, silence often serves as a threshold, marking the line between the everyday and the sublime. In Symphony No. 2 ("Resurrection"), the long pauses before the chorus enhance the sense of awe and expectation, as if silence itself gets ready for a revelation.

Similarly, in the Ninth Symphony, Mahler's use of silence in the final movement suggests a sense of fading. The music gradually breaks apart into increasingly delicate gestures, spaced by longer and more fragile silences, until it ends in almost nothingness. As Adorno (cited in Paddison, 1993) noted, Mahler's music often leads listeners "to the brink of silence," where absence speaks more deeply than presence. Here, silence is not just a rhetorical device but an existential one, challenging listeners with themes of mortality, limitation, and transcendence.

2.3. Webern and the fragmentation of sound

Anton Webern pushed the idea of silence even further. In his short pieces and orchestral works, silence is not just a background; it is a key structure. The brief nature of his compositions – some lasting less than two minutes – relies on extreme conciseness, where each note is separated by rests that define space as much as sound. In the Five Movements for String Quartet, Op. 5, silences break the musical surface, creating a sense of fragmentation that rejects traditional continuity.

Webern's silences highlight not just individual sounds but the act of listening itself. As Nattiez (1990) argues, these pauses are meaningful signs, guiding the listener's attention to subtle details of tone and attack. Silence thus becomes an essential part of the music's system of meaning, carrying significance through its very fragmentation.

2.4. Cage and the radicalisation of silence

Cage's *4'33"* represents the ultimate expression of silence in music. As explained in Section I, the piece consists of three movements where the performer does not make any intentional sound. Rather than negating music, it redefines silence as a space for ambient noise, prompting listeners to acknowledge that true silence does not exist (Cage, 1961).

Beyond *4'33"*, Cage integrated silence into many of his works as a creative strategy. In pieces like Sonatas and Interludes for Prepared Piano, quiet moments disrupt expectations, challenging the listener's sense of rhythm. Here, silence is not just structural but philosophical, reflecting Cage's deep interest in Zen Buddhism and the idea of non-intention (Gann, 2010).

2.5. Stravinsky and rhythmic silence

Igor Stravinsky wove silence directly into rhythm. In The Rite of Spring (1913), sudden rests break violent rhythmic patterns, creating a feeling of disruption. Silence here acts as a jolt, interrupting momentum and forcing listeners to confront the instability of the beat. In the Symphonies of Wind Instruments (1920), silence shapes the form itself, with unexpected gaps separating contrasting sound blocks. These pauses highlight Stravinsky's 'block construction' technique, in which musical events are placed side by side without transition. Taruskin (2005) describes these interruptions as 'structural caesuras,' where silence itself forms an architectural element.

2.6. Debussy and atmospheric gaps

Claude Debussy used silence in a distinct way: not as a shock but as a means to create atmosphere. In pieces like Prélude à l'après-midi d'un faune (1894), silence allows sound to dissolve into suggestions. Pauses evoke breath, dreams, and suspension, enhancing Debussy's focus on impressionistic color over structural continuity. Kramer (2016) argues that such silences act as "frames of listening," directing attention to subtle tonal details and ephemerality.

In La Mer (1905), silences articulate changing textures, giving an impression of ebb and flow. They do not disrupt but instead breathe, connecting silence to the natural world. Debussy's silences differ from Beethoven's strategic use or Stravinsky's disruptions: they are atmospheric and evoke fluidity and ambiguity.

2.7. Minimalism and extended temporality

Silence takes on another role in twentieth-century minimalism. Composers like Steve Reich and Philip Glass often focus on continuous rhythmic patterns with minimal silence; however, when silence does appear, it gains significant weight. In Reich's Different Trains (1988), pauses between recorded voices and instrumental responses heighten the tension of memory and testimony.

In contrast, Morton Feldman made silence central to his work. His late pieces, like String Quartet No. 2 (1983), can span hours, featuring long stretches of quiet dynamics and rests that blur the lines between sound and silence. Feldman's silences invite a different type of listening – what Voegelin (2010) calls "immersive silence," where listeners attune to the fragility of sound itself. Moreover, minimalist and post-minimalist silences emphasize temporality, not as interruptions, but as expanses that reshape how listeners perceive time.

2.8. Toward a poetics of musical silence

From Beethoven to Cage and from Stravinsky's rhythmic breaks to Debussy's atmospheric silences, and from Webern's structural pauses to Feldman's lengthy stretches, silence in music has many forms. These varied uses of silence show that it does not just interrupt musical meaning but is one end of a continuum along which musical expression flows. Levinson's (1982) insight that silence can evoke emotion reinforces this idea: silence enhances tension, conveys transcendence, breaks continuity, shapes atmosphere, and shifts perception.

Therefore, musical silence is not just absence. It acts as a medium of expression, a tool for structure, and a philosophical vehicle. Examining silence in music reveals that what is not played can often be as impactful as what is played. These examples illustrate that silence serves not as a disruption to musical meaning, but as one end of a continuum along which musical expression progresses.

3. Silence in language

Just as silence is essential to the structure and meaning of music, it is just as important for language. The cultural role of silence in communication, often seen as a continuous flow of words, is deep. It includes pauses, hesitations, and silences that convey meaning. These non-sounds are not just gaps; they shape conversation, guide interaction, and express meanings that words alone cannot capture.

3.1. Pauses and prosodic structure

Crystal's (1969) early study on English intonation highlighted that pauses are a key part of prosodic systems. They break spoken language into meaningful units, similar to how punctuation structures written text. Pauses provide moments for breathing and also influence the rhythm and melody of speech.

Prosodic silences serve practical purposes too. A brief pause before a keyword can indicate emphasis, while a longer pause may show hesitation or uncertainty. Ephratt (2008) has shown that these silences are not random but serve specific functions, helping speakers manage turn-taking and mark conversation boundaries. Silence is woven into spoken language, actively helping shape its rhythm and melody, engaging both the speaker and the listener.

3.2. Conversational silence and pragmatic functions

Silence also plays a complex role in conversation beyond prosodic pauses. Jaworski (1993) argues that silence is a communicative act, a tool for negotiating meaning and social ties. In some situations, silence may signal agreement or compliance; in others, it may express dissent or refusal. The meaning of silence heavily relies on context, speaker intent, and cultural norms.

Tannen (2005) points out that conversational styles differ among individuals and groups, with silence being a significant factor in these differences. For some, quick turn-taking with little silence shows engagement; for others, such interruptions can seem rude, with silence preferred as a sign of respect. These differences show that silence is not just the absence of speech but also a cultural marker of identity and interaction style.

3.3. Intercultural silence

Intercultural communication offers clear evidence that silence is shaped by culture. Nakane's (2007) study of Japanese-Australian interactions reveals that silence is often understood differently in various cultural settings. In Japanese communication, silence can be seen as thoughtful or respectful, while in Australian contexts, it might be viewed as awkward or disengaged.

Saville-Troike (1985) also observed that silence is a "sociolinguistic universal," but its roles vary across communities. In some Indigenous American settings, silence when meeting strangers signifies caution and respect. In Western contexts, such silence may be seen as socially uncomfortable. These examples illustrate how cultural codes shape

the meaning of silence, similar to how musical pauses gain meaning within specific styles and histories.

3.4. Early childhood communication and proto-musical silence

Trevarthen's (1999) research on infant communication shows how silence is important at the start of language development. Infants engage in proto-conversations with caregivers that involve rhythmic exchanges of sounds and silences. These patterns resemble musical phrasing just as much as they do linguistic dialogue. Silence creates the time for the other person to respond, establishing the foundational rhythm of social interaction and linking us to the roots of communication.

Trevarthen emphasized that silence is not a passive moment but part of an "intrinsic motive pulse" that shapes human communication from infancy. The alternation of sound and silence in early exchanges hints at the rhythm of speech and the structure of music, suggesting a shared biological basis for silence as a means of communication.

3.5. Toward a pragmatics of linguistic silence

From prosodic pauses to conversational negotiation, and from intercultural differences to early development, silence proves to be a key element of language. Like musical rests, linguistic silences carry significant structural, emotional, and symbolic weight. They organize discourse, guide interaction, and reflect cultural values.

Just as silence in music can heighten drama or inspire transcendence, silence in language can show hesitation, signify respect, or express the unsayable. Silence blurs the line between what is said and the social meaning behind it. In both music and language, non-sounds are not just absences; they are active parts of communication. Like music, linguistic silence shapes time, expectation, and emotion, showing that pauses and gaps are as essential to discourse as spoken sounds.

4. Noise and cultural context

If silence shapes meaning through absence, noise shapes it through excess – another type of non-sound that is crucial to how sonic order is managed and experienced. In both music and language, noise is often defined as the opposite of meaningful sound: disorder instead of order, interference rather than communication. However, like silence, noise is more complex than that. It functions as a cultural category that reveals historical concerns, social hierarchies, and political battles over sound. To grasp noise is to understand how societies control what is recognized as sound, music, and speech.

4.1. Attali and the political economy of noise

Jacques Attali's *Noise: The Political Economy of Music* remains a significant theoretical look at noise. For Attali (1985), noise is not just an unwanted sound but a sign of change, "a herald of disruption and prophecy." Noise threatens established norms because it defies

containment within existing meaning systems. By disrupting harmony – whether in music, society, or politics – noise signals the emergence of new forms.

Attali interprets the history of Western music as a series of changes in the sound economy: from ritual to representation, from composition to repetition. In each phase, noise both resists and anticipates transformation. The dissonant sounds of early modernism foreshadowed the collapse of tonal harmony, while the repetitive sounds of the recording era brought about new sonic excess. Noise, in Attali's view, is never neutral; it is a battleground for power and meaning.

4.2. Schafer and the acoustic ecology of noise

Schafer (1994), in *The Soundscape: Our Sonic Environment and the Tuning of the World*, looks at noise from an ecological view. He distinguishes between "hi-fi" soundscapes, where natural sounds are clear over distances, and "lo-fi" soundscapes, typical of industrial and urban areas, where overlapping sounds blur acoustic detail. For Schafer, the growth of industrialization turned silence into a rare resource, as the world became filled with mechanical noise.

Schafer's effort to explore acoustic ecology calls for "tuning the world" by preserving and promoting balanced soundscapes. In this context, noise is both an aesthetic disruption and an environmental problem. His work laid the groundwork for modern soundscape studies, stressing that noise is tied to the environments where people live.

4.3. Sterne and the cultural history of noise

Jonathan Sterne (2003) offers a complementary view by placing noise in a historical context. In *The Audible Past* Sterne shows that modern ideas of sound and hearing are not natural but shaped by technologies such as the stethoscope, phonograph, and telephone. These devices amplified certain sounds and altered what was considered noise.

Sterne argues that noise is always a relational term, shaped by cultural listening practices. What one era or community identifies as noise, another might recognize as meaningful sound. The crackle of early recordings, once regarded as interference, is now appreciated as an aesthetic marker of authenticity in lo-fi music. Noise reveals how sonic values evolve over time.

4.4. Thompson and the modern soundscape

Emily Thompson's (2002) *The Soundscape of Modernity* lends another perspective, showing how architectural acoustics and technology changed the experience of noise in the early 1900s. In new concert halls and radio broadcasts, sound clarity was highly valued, and noise became a sign of design failure. At the same time, urban soundscapes faced increasing regulation through noise ordinances, reflecting concerns about modern living.

Thompson's research underscores the tension between technological advancement and sensory overload. The hum of electricity, the roar of traffic, and the noise of factories became icons of modernity, even as they were labeled as "noise." The cultural politics

of noise stretched from concert halls to city streets, influencing both aesthetic standards and urban planning.

4.5. Voegelin and the philosophy of noise

Salomé Voegelin (2010) extends the conversation into philosophy. In *Listening to Noise and Silence*, she argues that noise defies easy representation, urging us to focus on the act of listening itself. Noise challenges meaning not because it lacks it, but because it overflows and exceeds the categories we use to understand sound. This perspective shows the fluid nature of perception and encourages new ways of paying attention.

For Voegelin, noise is more than an object to control; it is an event that disorients the listener, creating an encounter with sonic difference. In its resistance to fitting familiar frameworks, noise broadens our understanding of what listening can be.

4.6. Case studies: Urban and technological noise

Urban soundscapes illustrate how noise functions as a cultural category. From early "anti-noise" movements in nineteenth-century cities to today's regulations on traffic, construction, and nightlife, societies have sought to manage sound for health, productivity, and social order. What is classified as "noise pollution" is influenced as much by social class and power as by acoustics: the sounds of working-class labor or immigrant communities are often dismissed as noise, while those of the elite are celebrated as culture (Bijsterveld, 2008).

Technological soundscapes also blur the line between noise and signal. The static from early radio broadcasts, the hiss of analog tape, and the hum of digital devices have all been termed noise at different times. However, in genres like experimental electronic music, these same sounds are embraced as materials. As Attali (1985) predicted, noise frequently becomes the raw material for new musical forms.

4.7. Toward a cultural poetics of noise

Noise, like silence, cannot be simplified to a negation. It reveals the limits of order and meaning while also highlighting cultural worries and hopes. Attali's political perspective sees noise as a disruptive force; Schafer's ecological view frames it as an environmental concern; Sterne and Thompson place it within a modern historical context; and Voegelin reinterprets it as a philosophical listening experience.

Together, these viewpoints show that noise is not simply the opposite of music or language but an integral part of both. By overwhelming, interrupting, or destabilizing, noise compels us to confront the boundaries of communication and culture. If silence shapes meaning through absence, noise shapes it through excess. In both scenarios, what is not considered "proper sound" becomes crucial for creating meaning.

5. Semiotics, voice, and cross-disciplinary approaches

Silence and noise, often thought of merely as sound, hold deeper meanings. They represent cultural absences and excesses that convey messages through various systems of representation. Beyond their sound-related aspects, silence and noise function as signs. Analyzing them through semiotics means understanding how they fit into networks of meaning, showing that what is not heard can be just as important as what is. Theories from Roland Barthes about the "grain of the voice" to Umberto Eco's concept of the "open work" highlight how both sound and silence serve as spaces for interpretation, ambiguity, and variety.

5.1. Barthes and *The Grain of the Voice*

Barthes's (1977) essay *The Grain of the Voice* is a significant exploration of sound and its physical qualities. He argues that the meaning of the voice goes beyond just words or music. Its importance lies in the "grain," the texture of the voice produced by the body, which ordinary descriptions can't capture. Silence plays an essential role here; it allows the grain to stand out. Without pauses or hesitations, the qualities of sound would fade away.

Barthes moves past strict interpretations of music and language. He focuses on the physical and sensory aspects of listening. Silence and noise highlight the actual presence of sound, shifting the focus to its texture rather than its symbolic meaning.

5.2. Eco and *The Open Work*

Eco's (1989) *The Open Work* offers another valuable way to understand silence and noise. He suggests that certain artworks are open to many interpretations, designed to engage the audience. This openness often comes from uncertainty – gaps or silences that require listeners or readers to create meaning. In music, this might appear as random patterns or unclear pauses; in literature, it could be indicated by ellipses or parts of the story that go unsaid. This approach encourages the audience to actively participate in meaning-making.

Eco's theory also shows how noise can be seen as a form of openness. Sounds that seem extra can disrupt fixed meanings and reveal new ways to interpret. In both instances, non-sounds – like silence and noise – create gaps that prompt listeners to co-create meaning, highlighting their active role in interpretation.

5.3. Nattiez and the semiotics of silence

Nattiez (1990) specifically examined silence as a sign. In Music and Discourse, he argues that every part of music, including silence, is part of a sign system. A rest does not mean "nothing"; rather, it conveys meaning based on cultural and stylistic contexts. For instance, a pause in Mozart may signal dramatic tension, while one in Webern might suggest fragmentation. Silence is always understood in relation to musical rules and cultural background.

Nattiez's view aligns with linguistic ideas about pragmatics, where pauses and silences are understood in the context of conversational standards. In both cases, silence acts as a sign whose meaning only comes through its relation to other signs.

5.4. Monelle and the tropes of silence

Monelle (2000) expanded semiotic analysis by looking at what silence symbolizes in music. In *The Sense of Music*, he shows how musical ideas carry cultural meanings beyond their structural roles. Silence can represent themes like death, transcendence, or rupture, depending on historical and stylistic contexts. For example, silences in Romantic adagios might evoke a sense of longing, while those in modernist pieces could signify alienation.

Monelle's analysis indicates that silence carries symbolic meaning rooted in cultural stories, making it more than just a structural or semiotic element. Silence becomes a recurring theme – its meaning changes depending on context, but always goes beyond simple sound.

5.5. Chion and the audiovisual function of silence

Chion (1994) broadened the study of silence into film sound analysis. In *Audio-Vision: Sound on Screen,* he argues that silence in film is never absolute; it relates to the surrounding sound and image. A sudden silence in a movie heightens tension, suggesting emotions like introspection or danger. In this sense, cinematic silence serves as a strong semiotic instrument, rich with emotional and narrative depth.

Chion also points out the relationship between noise and silence in film. Sounds like radio static or machine hum, along with moments of quiet, gain significance through their connection with the visuals and audio. His work shows that silence isn't just the lack of sound; it's a prompt for interpretation, shaped by what comes before and after.

5.6. Zumthor and the poetics of oral silence

Paul Zumthor's (1990) insights on oral poetry add another layer to the discussion. In *Oral Poetry: An Introduction*, he highlights that performance relies heavily on silence as much as it does on spoken words. Pauses in oral delivery are not mere gaps; they are vital parts of rhythm, memory, and audience connection. Silence creates suspense, marks transitions, and allows listeners to engage in meaning-making.

Zumthor emphasizes that within oral traditions, silence is not only accepted but cherished as a vital aspect of the art form. This reflects Eco's idea of openness and Barthes's focus on material presence, showing that across various traditions, silence is crucial to the voice's poetics.

5.7. Toward a semiotics of non-sound

The insights from these thinkers illustrate how silence and noise serve as signs in music, language, and performance. Barthes stresses the physical quality of the voice, Eco discusses interpretive openness, while Nattiez and Monelle analyze silence as both a sign and a theme. Chion positions silence within audiovisual storytelling, and Zumthor underscores its importance in oral traditions. Non-sounds do not signify emptiness; rather, they represent signs that invite meaning, convey associations, and shape understanding.

Thus, silence and noise are as much about meaning as they are about sound. They indicate absence, disruption, or difference while playing a vital role in human communication.

By viewing silence and noise as signs, we can better understand their impact on music, language, and culture, highlighting their importance and relevance.

Conclusion

Silence and noise, typically seen as the opposites of sound, emerge as essential to conveying meaning in music, language, and culture. From the strategic pauses of Beethoven to the existential moments in Mahler, from the atmospheric gaps of Debussy to Cage's stark challenges, silence serves as expression rather than absence. In language, pauses shape rhythm; moments of silence in conversation define power and closeness; cultural silences reflect societal values; and the early silences in infant communication establish the rhythm of dialogue. Overall, silence organizes, emphasizes, and conveys messages that sound alone cannot.

Noise, on the other hand, illustrates how societies draw lines around acceptable sounds. For Attali (1985), noise signals new social and musical formations. Schafer (1994) views it as a sign of ecological disruption in an industrialized world. Sterne (2003) and Thompson (2002) demonstrate that noise is shaped by modern technology and society. Voegelin (2010) reminds us that noise goes beyond what can be represented, compelling us to engage directly with listening. Like silence, noise is rich in meaning, reflecting cultural concerns about order and chaos.

The semiotic and cross-disciplinary viewpoints of Barthes (1977), Eco (1989), Nattiez (1990), Monelle (2000), Chion (1994), and Zumthor (1990) further clarify how silence and noise act as signs. Barthes's "grain of the voice" shows how silence draws attention to the material aspects of sound; Eco's "open work" reveals how interruptions invite engagement; Nattiez and Monelle see silence as both a sign and a recurring theme; Chion considers cinematic silence a narrative element; and Zumthor highlights the performative nature of silence in oral tradition. Across all these perspectives, silence and noise are interpreted as spaces that encourage, even necessitate, meaning.

In conclusion, these insights challenge the simplistic view that divides sound and non-sound. Silence isn't just the absence of sound, nor is noise merely chaos. Both are essential to communication and shape human experiences, interpretations, and soundscapes. Silence communicates by withholding information, while noise conveys meaning by overwhelming. Both challenge and widen the boundaries of expression.

In this way, silence and noise are critical to music and language, marking transitions, creating openings, and forcing engagement with ideas that cannot be entirely expressed through words or sound. Studying silence and noise means exploring where meaning begins to take shape, where absence and excess are just as expressive as presence and order.

This model might provide a useful starting point for future research on listening habits, conversations, and sound environments.

As Cage (1961) stated, real silence doesn't exist, and as Attali (1985) pointed out, noise is a sign of what's to come. Together, they show that human expression – be it musical, linguistic, or cultural – depends not only on what we say or sound but also on what we leave unsaid, interrupt, or consider excessive.

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