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Heaviness: A Key Concept of Metal Music Through the Lens of Deleuzian Philosophy

Introduction[1]

One of the main elements attributed to metal music is the quality of heaviness. Very few academics have devoted research to heaviness, even though it is very often used to describe metal music. My goal in this paper is to construct a way of understanding heaviness as a vehicle for musical meaning. In my analysis, I use concepts developed by French philosophers Gilles Deleuze and Félix Guattari because I believe that through their metaphysical concepts, we can more readily grasp the ever-changing and highly contextual field of musical meaning.

First, I review current academic research that deals with heaviness, and I present the individual definitions that are presented by the various authors. Then I outline relevant aspects of Deleuze and Guattari's philosophy, more precisely the notion of a bloc of sensations as a compound of affects and percepts and the notion of intensity as a genetic source of qualities and extensities. Through this conceptual position, I suggest an interpretation of the notion of heaviness, that combines all antecedent definitions of heaviness.

Heaviness as a Product of Intensity

Heaviness as a term for sound quality appears in many works about metal music and is the subject of theorizing. For example, Phillipov (2012), Wiederhorn (2013), and Weinstein (2000) use the notion of heaviness to describe the sound qualities of metal music and its subgenres. However, these authors never explain what precisely heaviness means. Rather, they rely only on popular connotations of the word. On the other hand, some have provided some degree of contextualization, conceptualizing heaviness as the quality of electric distorted guitars (Berger 1999; Berger, Fales 2005), while others observe these qualities – mostly distortion (Herbst 2017, 2018)

[1] Note: This short text is based on an original academic paper "Stávání se tíhou: Filozofie difference a metalová hudba" ("Becoming Heaviness: Philosophy of Difference and Metal Music") that is a part of the peer-reviewed collection *Sémiotika a ideologie* (*Semiotics and Ideology*) which will be published in late 2022. The text has been modified, reduced, and translated from Czech to English by the author.

and tuning (Kahn-Harris 2007; Mynett 2012, 2013) – as key to perceptions of heaviness throughout the history of metal music. Some argue that metal music "becomes heavier and heavier over time" (Berger 2004: 182; Herbst 2018: 2).

So, what makes it heavier? For some, it is the distinctive timbre and pitch range of electric guitars (Mynett 2013: 44), while others believe that the quality and quantity of distortion make for a greater feeling of heaviness over time (Berger 1999: 58–60). Two of Berger's claims are important:

> Any element of musical sound can be heavy if it evokes a sense of power or any gloomy emotion, and the history of metal music can commonly be seen as a pursuit of heavier and heavier (Berger 2004: 131).

> Heaviness is a comparative term, and in any act of listening, the quality of the metal fan's heaviness experience is shaped by his past experience with the distorted sounds of the electric guitar (Berger, Fates in Greene 2005: 196).

Berger's observations here show us two important aspects of heaviness – its double-fold of the physical objectivity of certain sound qualities and the mental, experience-based subjectivity of the individual. This is a bloc of sensations, defined by Deleuze and Guattari as a "compound of percepts and affects" (2001: 142). Accordingly, Deleuze and Guattari further suggest that it is the artist's goal is to "create blocs of percepts and affects" (ibid.: 143). To preserve this bloc, the artist needs a substance that can endure. However, what has an effect on us when we come into contact with art is not the substance itself, but its percepts and affects. "Sensation is not realized in the material without the material passing completely into the sensation, into the percept or affect" (ibid.: 167). Percept in this case means perception that is not burdened by its creator or by the one who receives the percept. And affect "exceeds the power of those who undergo it" (ibid.: 142). The artist thus creates an affect by working with the substance. So, it depends not only on the substance itself and the intention of the work but also on ourselves. We are part of the whole creative process together with the affects that influence us: "Affect is becoming" (Deleuze, Guattari 2010: 256). Deleuze and Guattari thus argue about art:

> The artist shows affects, invents affects and creates affects in relation to the perceptions or visions he offers. However, he does not create them only in his work, but gives them to us, we become with them, we are part of the compound (Deleuze, Guattari 2001: 153).

Heaviness, as a bloc of sensations, is created by the artist but its final completion takes place only in the listeners themselves. We can perceive this as the ability of the listener to infer[2], that is whether they can, from the percepts available to them, feel and become the heaviness together with the affects.

Listening to metal music, or any other music with the quality of heaviness, listeners are introduced to blocs of sensations, which consist of various percepts and affects. The perception of heaviness then depends on the degree of their ability to contextualize the individual percepts and affects with their previous listening experience. This is crucial for heaviness perception. When we listen, we engage our

[2] For more on musical inference, see Švantner (2019: 93–115).

ability to perceive levels of intensity, through percepts and affects, and compare this level with our past or current experience. We also engage our ability to perceive several overlapping percepts and affects as an individual sensation. It is because of this perception that determines whether we perceive a composition as unstructured noise, resembling white noise, or as a densely layered array of individual intensities that overlap one another so that some of them rise above all the others and together with us become heaviness.

I briefly turn my attention to the notion of intensity:

> For it is not figures already mediated and related to representation that are capable of carrying the faculties to their respective limits but, on the contrary, free or untamed states of difference in itself; not qualitative opposition within the sensible, but an element which is in itself difference, and creates at once both the quality in the sensible and the transcendent exercise within sensibility. This element is intensity (Deleuze 1994: 144).

Intensity is perceived as pure difference in itself, which is itself incomprehensible to our senses. It is a certain force, which we perceive through its influence, its effect on the world. It thus exceeds the possibility of empirical grasp, yet it is accessible to us through the extensities it precedes, which in turn makes the perception of intensity. It is a type of virtual conflict – pure difference that is actualized through the extensities it creates and which we perceive as a certain degree of a given intensity. Intensity is a part of the real, but it does not exist anywhere but in its extensity. However, it is not identical, nor at all similar, to the intensity from which it originated; it is only one instance of it. We have a double possibility of difference here: extensive and intensive. When we divide the extensive difference (i.e., length, content, volume) in two, we end up with two halves of the same extensity (wood cut into two halves, pouring half a glass of milk into another glass results in two half-glasses of milk). On the other hand, intense differences (i.e., temperature, pressure, sound) must undergo a material change in this division, because we cannot divide or add a few units of that given difference without causing material change. Because intensity is a certain type of encounter, a feeling that does not correspond to any empirical category, it forces our mental faculties into a transcendent act, namely the creation of new identities and ideas.

Heaviness is therefore a concept we use to describe a notion of specific comparative change in our musical experience. We compare our previous musical experience with the current listening experience, and we sense the difference between those two individual events. For Berger, it would be the difference in the level of distortion of electric guitars in each individual listening event. I do not agree with all of this assertion since heaviness is a comparative term. But it is not an exclusive quality reserved only for the timbre of distorted electric guitars, because we can find it in other, guitar-less genres of music. It is thus important for us to know that heaviness is a kind of vehicle of musical meaning that does not depend on some pre-experiential essence but on the listener's experiential ability to correctly determine points of importance, to determine which relationships are clearer and closer than others.

The determination of sound as heavy thus lies in the reciprocal relationship between the virtual object and the listener's ability to differenciate the sound as heavy

music. And that differenciation is the result of a learning process. The perceived assemblage of a sound is the comparison of the degree of present becoming-intensities. We interpret it as listeners – we recognize the difference, the relationships between the individual levels of intensities and we give them meaning based on previously learned relationships. This explains why listeners unfamiliar with the semantic relationships of metal music rarely hear more extreme metal genres as music, and by analogy why a listener unfamiliar with jazz does not recognize bebop's intricate relationships or why listeners perceive the heaviness of distorted guitars as increasingly heavier and heavier (Berger 1999: 58–60).

Physical Properties of Sound as Extensities and Qualities Created by Intensity

Heaviness does not depend only on the listener's experience and interpretive ability. The physical properties of sound play an important role as well, as it is precisely these extensities through which the given intensities are present and available to us. First, it is necessary to individually consider the sonic elements of heaviness that we perceive based on our experience with the environment and those that are evolutionary encoded within us; those elements that emerge from culture and cultural customs are therefore of a purely contextual nature. The ecological approach suggests that, based on our experience with the environment, we will learn certain physical assumptions and essentials of the world, which we then apply to our understanding of certain phenomena, such as the magnitude of the force that produces a sound: "[Knowledge] stems from our basic experience of what sorts of noises are produced by light tapping as opposed to heavy thumping" (Zagorski-Thomas 2012: 141). Low-pitched sounds need more energy than high-pitched sounds to actualize, and "this association… is a matter of ecology rather than culture" (Zagorski-Thomas 2015: 123). David Huron comes to a similar conclusion in his acoustic-ethological model which is his refinement of Morton's model (Morton 1977: 855–869). Here, he adds volume intensity to a tone's pitch. This creates a model with four acoustic conditions:

> (1) High pitch and high volume – associated with alarm, fear and energy, (2) high pitch and low volume – associated with calm or friendliness, (3) low pitch and high volume – associated with aggression and seriousness, (4) low pitch and low pitch intensity – associated with sadness, drowsiness, and relaxation (Huron 2015: 343).

Thus, not only by changing the pitch but also by changing the intensity of the volume, do we change the perception of a sound. How does this manifest in metal music?

We need to look at metal through the concept of the primary and secondary domains of music. The primary domain of music deals with tempo, meter, rhythm, melody, and harmony. That is what we might call matter or content in music. The secondary domain is the domain of form, it is what shapes the matter and determines how it will be accessible to us. Its constituent elements are therefore texture, timbre, and location (Moore 2012: 29). However, the perception of these two domains as divisible is somewhat misleading, as it implies the superiority of the

primary dimension over the secondary. We could compare this illusion to the illusion of identity as superior to difference. The secondary domain is what differentially defines the primary domain as an identity that we can (differentially) distinguish from other perceptions as unique. However, we also cannot designate a secondary domain as superior to primary domain. Rather, we would call their relationship an assemblage, a body that consists of certain singularities that have relationships with each other. These relationships are not fixed and can be severely interrupted at any time, followed by finding and creating new relationships and connections. Thus, it is impossible to determine the superiority of one over the other, because the meaning is formed precisely by the creative combination of both dimensions into a reciprocal assemblage, which subsequently becomes something more than just the sum of its parts. That said, I now focus mainly on the last element of the secondary domain, namely location.

This concept best demonstrates the objective physical aspects of sound, as it becomes within space, more precisely the location of the sound source and receptor in space, as well as the space itself, in which sound becomes. One way of exploring this concept is by using the soundbox model (Moore, Dockwray 2008: 219–241). As it was later refined (Moore 2012: 29), Moore describes the purpose of this model as "providing a way to conceptualize the texture in which the recording takes place by allowing us to hear the recording in space" (ibid.: 30).

Even though Moore talks about the soundbox exclusively within the recording of sounds and music, this model can also be applied to live listening because listening also takes place in a certain space and this space is accounted for in performance. However, Moore speaks of the soundbox as "a heuristic model of how sound source location works in the recording process, and acts as a virtual spatial enclosure for resource mapping." (ibid.: 31). He further describes four aspects of the soundbox (ibid.: 31): time, as the only component of the soundbox, does not deal with space, but rather with duration in space. The first purely spatial aspect is laterality. This is based on the human properties of the binaural perception of sound. Our ears amount to a pair of auditory receptors with which we are (not necessarily consciously) able to distinguish even minimal differences in the properties of sound. For example, we determine a sound's directionality based on the difference in time (measured in milliseconds) it takes for the sound to reach our left and right ears respectively (Huron 2006: 103).

The second aspect is prominence, comprising a "relative dynamic level and degree of distortion" (Moore 2012: 31). Prominence deals with our ability to distinguish two different sounds from within a soundscape and to measure them against each other within space to determine their (approximate) distances. This aspect is very important for heaviness, as Mynett notes that "the sounds contained [in heaviness] will be perceived not only as containing great power and great size but also as sounding very close and intimate to the listener" (Mynett 2013: 46). Listeners' ability to discern the proximity of and between individual sound sources is the ability to discern a certain intensity of proximity through its extensities and qualities. In this case, it may be the volume that is "a factor of both the dynamic level and the level of distortion" (Moore 2012: 32).

The third and final spatial aspect is register. This deals with pitch in a given space, but differently than laterality or prominence. Rather, the concept of register concerns only the pitch of a tone, namely its contextual evaluation of perception within the passage of time. If we hear a sequence of tones, we can determine when the sequence falls and rises in pitch. As such, we tend to perceive higher pitches spatially high, just as low pitches are perceived low within space. If we hear two different instruments playing the same pitch – such as a whistle and a clarinet (ibid.: 32) – we can determine which sound seems higher in space. This is thanks to the quality of timbre, i.e., the sound of a musical instrument that contains not only the fundamental frequency but also many other overtones. The sound of the whistle in this case contains a higher concentration of higher harmonic and non-harmonic components, thanks to which we perceive it spatially higher compared to the sound of the clarinet, which does not have such a large ratio of these components (ibid.: 32).

Our mental abilities to evaluate these physical properties of sound within space is a form of collision with pure difference – a collision with intensity reaching the borderline degree of laterality, prominence and verticality. Our experience compares this differentiality with previous differentialities, thus assigning meaning to a given intensity. Metal music often uses this evaluation of intensities in the form of heaviness. How do we achieve heaviness in the production of electric guitar music, an instrument symbolic and indispensable for metal music?

The two most commonly used techniques for creating the heavy intensities of electric guitars are tuning (Kahn-Harris 2007; Mynett 2012; 2013) and distortion (Herbst 2017; 2018). Usually, an electric guitar used to play heavy metal has six strings that are tuned to the pitches E2 A2 D3 G3 B3 E4. However, the guitar sound most associated with contemporary metal music is achieved by altering this standard tuning, either by using "dropped" tunings (most commonly "drop D"), fully down-tuning the entire set of strings by a half- or whole-step, or using modified guitars that include one or more extra bass strings. In this way, tunings containing D2, B1, A1 or G1 are common in contemporary metal, but some bands also use tunings that reach as far as C0, B0 or A0[3]. These lower frequencies affect our perception of the register, i.e., the intensity of the verticality of the sound. For example, if there are frequent jumps between low and high octaves, an impression of height is created within the space.

The second major aspect is distortion. Distortion affects our perception of sound on several levels. Berger and Fales speak of distortion as a technique that:

> Compresses the signal and creates harmonious and non-harmonic overtones, sustains and also flattens the dynamic envelope. These acoustic effects lead to clearer sound, roughness and amplitude fluctuations, which is perceived as the noise surrounding the sound (Berger, Fales 2005: 184).

[3] Use of these types of tunings can be found in a genre called *thall.* An example is the song "Suneater" from the album *Prophet of Despair* (2016) by the Moldovan band Fractalize. Available from (Thall Tv): www.youtube.com/watch?v=8nxN2x3_xsI (access: 15.05.2021).

By distorting sound, we influence the form of several extensities and qualities that occur in music. The flattening of the envelope affects the perceived proximity of the sound. As distortion reduces the differences between the phases of the envelope, the sound is perceived by the listener as immediately reaching maximum intensity and holding at this level without significantly reducing sound intensity (what we perceive as sustain, a relatively stable degree of intensity of a sound).

> If the producer wants to evoke a sense of closeness in a sound, by bringing it closer to the listener, rather than increasing the sound volume, the producer adds a small amount of distortion (Moore 2012: 37).

In addition to flattening the dynamic range of the envelope, distortion also adds overtones that are part of the higher harmonic series. Distortion thus changes the timbre of an electric guitar by adding higher frequencies that its sound does not normally contain (Berger, Fales 2005: 194). This affects the register of the guitar timbre; the sound is perceived as fuller and more vertically spacious. From the perspective of the primary domain, it also makes the sound harmonically richer, because through compression the stratifications of individual frequencies are denser, so the difference in intensity of volume is obscured.

This whole projection of sounds takes place at high volumes (Moore 2012: 37), in which we perceive the guitar sound as, according to the models above, coming from a spatially powerful source (body) that is able to create a large amount of energy to produce such an intense sound. If we take a closer look at each of the qualities listed above, we again notice that we observe the same phenomenon, only differentially different, i.e., actualizing itself in different qualities and extensities that are different from each other and are not reminiscent of each other. But their purpose is the same: the formation of a sign to indicate an intensity that reaches a certain threshold and/or many intensities perplicated within themselves. As such, we can make the following statements about the qualities and extensities that give us the feeling of the heaviness of the guitar sound: The sound of a distorted guitar is perceived as close (reaching a certain intensity of intimacy); as harmoniously extensive (exhibiting many perplicated intensities); as spatially reaching staggering sizes (vertical and lateral, i.e., reaching a certain spatial power) and as mighty (evoking a feeling of spatial intensity).

Conclusion

Heaviness is an experiential, comparative designation for a specific aspect of the musical experience and indicates the degree and amount of intensity perceived through given extensities and qualities. It consists of an objective part: extensities and qualities sharing certain physical properties, which indicate the degree of intensity that produces them (high volume = a large amount of energy); and a subjective part: the listening experience and the degree of the ability to distinguish individual sounds as sounds of musical expression, which listeners then contextualize with the present listening experience, allowing them to determine the difference in intensity of the current composition compared to their previous experiences.

Heaviness can be achieved on many levels of musical composition. However, it is always a matter of working with intensities, with the boundary levels they reach and with the layering and stratification of intensities and their divergent perplications. Important sonic aspects of heaviness are proximity, sound density and spatial power. Metal music achieves these aspects through many music recording and reproduction techniques that simulate the behavior of sound in the normal natural conditions of the world, allowing for modification of their intensities to create extensities and qualities of proximity, density and power. Using these physical properties of sound, which are experienced in the same context by every listener in their ordinary lives and are thus objective, metal music achieves a feeling of heaviness, i.e., a feeling of material size, power and great weight. This is associated with burden, that is intangible pressure, seriousness and a certain difficulty not of material origin, but cognitively psychological and based on a certain overwhelming of our mental abilities by layered, stratified and perplexed intensities. For proper recognition of these intensities as musical elements of metal music, listeners need previous experience with smaller degrees of heaviness as a vehicle for musical meaning.

The concept of heaviness as I have discussed it here is a possible convergence point for current definitions of heaviness within metal music studies. In this semiotic view of heaviness that covers all the important points related to current definitions of the term, heaviness is understood as a contextual concept, because in all cases, perceptions of heaviness are based on the listener's sound experience (not only cultural and social experience with musical sounds but also ecological experience that includes the objective physical properties of sound) and the listener's ability to recognize intensities and distinct levels of intensity. This is possible because of the relationship between the current sound and all the sounds that have already happened in the listener. The intensities between these sound experiences are pure differences, and the differences in their levels and the amount of these intensities are heaviness. Metal music takes heaviness as a central constitutional element, which is evident through the history and current practice of metal. We can claim this because we find a direct and indirect effort to achieve heaviness in all phases of metal musical creation: in composition, recording and reproduction of metal music. We thus find in metal music an effort to auralize the feeling of heaviness, the percept arising from contact with staggering differences in intensity. This percept is accepted by listeners, thus affecting each other and, through their previous sound experience, both become heaviness.

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Abstract

This work focuses on the concept of heaviness and its use in the context of metal music. It first examines the concept in the works of other academics interested in metal music and then seeks to find a common point of convergence between the various definitions of heaviness through Deleuzian and Deleuze-Guattarian philosophy. In doing so, this thesis brings together both a cultural approach to the study of music and an ecological approach, creating a cognitive-semiotic conception of heaviness as a perplexity of the physical-spatial properties of sound and the listener's musical experience.

Ciężkość: kluczowe pojęcie muzyki metalowej w świetle filozofii Gilles'a Deleuze'a

W artykule skoncentrowano się na pojęciu ciężkości i jego wykorzystaniu w kontekście muzyki metalowej. Najpierw analizowano tę kategorię w pracach innych badaczy zainteresowanych muzyką metalową, a następnie starano się znaleźć punkt zbieżności pomiędzy różnymi definicjami ciężkości poprzez filozofię Gilles'a Deleuze'a i filozofię Deleuzo-Guattariańską. W ten sposób w pracy połączono zarówno kulturowe podejście do badania muzyki, jak i podejście ekologiczne, tworząc poznawczo-semiotyczną koncepcję ciężkości jako ambaras fizyczno-przestrzennych właściwości dźwięku i doświadczenia muzycznego słuchacza.

Keywords: metal music, heaviness, intensity, percept, affect

Słowa kluczowe: muzyka metalowa, ciężkość, intensywność, percepcja, afekt

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