

Bailey Heredge – 1802246

BA Music Technology

Robert Jones

L5 Research in Practice – ADAD5004

Keywords:

- *Affect*
- *Sublime*
- *Psychoacoustics*

The Importance of Sound within Space

Sound within space is critical to experience; “If the goal is to create a purposeful space providing a specific guest experience, then sound can enhance that experience” (Powell, 2020). This essay will evaluate the importance of the relationship between sound and space, exploring aspects such as the context of an environment influencing and shaping the surrounding music and how these factors can influence emotion and reaction. Exploring the key concepts of affect theory, the sublime within music and psychoacoustics will encompass a wide range of theories deriving from biological, scientific and philosophical backgrounds, whilst evaluating their contrasting and supporting ideas, to create a cohesive and perceptive argument for the important relationship between space and sound.

Affect theory attempts to define the reactions and actions in between emotions; “It’s like being right where you are – more intensely” (Massumi, 2015, p. 3), exploring the nature of why music in the context of its environment causes the affect of dance and intensity. Psychoacoustics will provide further argument towards this notion, using scientific studies and an emphasis of the acoustics of a space causing these intensities, whilst Brillenburg Wurth’s theories will highlight how the sublime within music can intensify these actions and emotions. In terms of sound and space, the sublime explores “intrinsic beauty of the audible forms that compose it” (Cooper, 1992, p. 178) and so highlights the importance of music affecting our emotions and actions. The fundamental concepts of the musical sublime coincide with the strong emotions creating the affect of reaction to sound “that is beyond all comparison” (Kant, 1790). The theory of psychoacoustics explores the relationship “between a sound’s characteristics and the auditory sensation that it provokes” (Lorenzi, 2018). The concepts and arguments within this research provides a scientific, practical based approach which will aid in supporting affect theories exploration of how sound influences emotion and reaction within the context of its environment.

Affect

Felix Guattari defines affect as “a process of existential appropriation through the continual creation of heterogeneous durations of being” (Genosko, 1996, p. 159); exploring the “experience and dimensions of living” (Zournazi, 2010). Both definitions sought to answer the question of “what do humans really want?” (Ekman, 1984). Affect theory is an important philosophical concept when attempting to define our emotions and reactions towards sounds within space as it explores “the primary innate biological motivating mechanisms” (Ekman, 1984) of our society; exposing the illusionary features of biological and psychological sources of human nature. Ekman argues the importance of affect theories relevance, within the exploration of societies actions to sound within the context of its environment, as he believes it is “the primary motivational system because without its amplification, nothing else matters, and with its amplification, anything else can matter” (Ekman, 1984); alluding to its concepts being the very basis of human nature; a concept important to understand when attempting to define the reasons behind our actions.

However, affect has also been theorised within a cultural context by philosopher Massumi, exploring the “capacity of force” (Massumi, 1993); focusing on critique similar to Deluzian ideology to “think beyond the horizon of anthropomorphism” (Gibbs, 2002). Gibbs highlights Massumi’s critique of biological theories, providing a contrasting argument involving sociological ideology. The affect of music can conjure different actions and emotions due to its context within a space. For example, the same music we hear on the radio can elicit much different emotions if the same song were to play during a protest. Music is used during social events to create a particular atmosphere; “via the induction, modulation and circulation of mood, feelings and intensities” (Thompson, 2013, p. 5). Gibbs would support this argument, believing “bodies can catch feelings as easily as catching fire” (Gibbs, 2002). Daniel Stern validates this theory within his studies of the affect within dance, arguing there to be much affect; of movements of affect between people, correlating towards music and dance. Stern argues the importance of how these actions are formed; the very basis of affect theory, rather than what movements they are. Gibbs believes these actions and emotions can motivate others as she argues “affect itself is the primary communicational medium for the

circulation of ideas, attitudes and prescriptions for actions among them” (Gibbs, 2002). In contextual terms of a protest and the environment the affect that music creates; Gibb’s believes affect motivate others as they are “communicated rapidly through facial expression, if someone is angry it motivates them, us and our relationship, at a basic biological level”; alluding to the support of biological theories, Ekman and Zournazi develop, within a sociological standpoint; highlighting the importance unprejudiced research to validate the importance of affect. These philosophers would agree that the combination of a space and the affect of music can create varying differences of expression and emotion; highlighting affects importance within the study of space and sound.

Massumi believes affect to correlate to intensity (Massumi, 2002) and the focus of emotions felt during brief sequential moments; “it explains why focusing on the next experimental step rather than the big utopian picture isn’t really settling for less... It’s more like being right where you are – more intensely” (Massumi, 2015, p. 3). This argument plays an important role when evaluating the motivating mechanisms for human behaviour within the context of sound as it explores the movement and emotions felt when experiencing music within a particular space; focusing on the feelings experienced during a brief moment, which can illicit the feeling of the sublime within a person.

Sublime

“The delight of the sublime must be representable as universally valid as regards its quantity” (Kant, 1790). Kant defines the sublime as “that is beyond all comparison that is absolutely great, either mathematically in terms of limitless magnitude, or dynamically in terms of limitless power” (The-Philosophy.com, 2019); arguably adopting the romantic movement of sublime due to his focus on the self and the subjectivity of magnitude and quantity in terms of a person’s perception and imagination. Kant further analyses the sublime within his Critique of Judgement; stating, in terms of the dynamically sublime, something too great for comprehension (Kant, 1790); “experiencing nature as fearful while knowing ourselves to be in a position of safety and hence without in fact being afraid” (Planck, 2005). It is this fearful emotion elicited by nature which Kant believes releases a feeling of self-transcendence; creating the sublime.

Wurth highlights a contrasting study of the sublime by Burke who believes existential sublime “evolves around the delight of having a physical life, being at a safe physical distance from the source of terror” (Titus, 2010, p. 220); arguing for a sublime which doesn’t pertain fear and experience but the sublime of life itself. However, Planck reiterates this illusion of danger as the person knows through reason they are in a position of safety; providing an argument for the similarity between Burke and Kant’s theory of the sublime.

French philosopher Lyotard provides another critique of Kant’s definition, arguing the sublime can be defined as “an art of negation, a perpetual negation . . . based on a never-ending critique of representation that should contribute to the preservation of heterogeneity, of optimal dissensus” (Bertens, 1994, p. 133); implementing a postmodernist critique of the sublime due to his opposition towards totality and his argument for challenging the representation of societies expression of opinion. Wurth argues the Kantian sublime experience is reflected within the mythological plot structure, consisting of a beginning, middle and end; “rest, crisis, climactic resolution” (Titus, 2010, p. 221), with the pivotal point being when pain becomes pleasure. Wurth highlights a critique of Kant’s transcendental sublime by Lyotard who believes in an ‘immanent’ sublime; whereby it occurs instantaneously or is inherent to a work of art, rather than alluding to it. However, Wurth provides similarity between them, stating Lyotard’s postmodern sublime and Kant’s transcendentalism are in

some ways similar. She observes that Lyotard's sublime of 'open immanence' can contain narrative structure of taxation and difficulty; aspects which happen over time; contrasting Lyotard's argument of immanence. This is similar to Kant's sublime which supports the mythological plot structure alluding to it happening over time.

Lyotard's work is the basis of Brillenburg Wurth's research into the sublime as she is exploring how music is and performs the sublime, rather than how the sublime appears in music; an important aspect to explore within the context of sound within a space. Wurth interprets the sublime as being aporetic and liminal, containing indeterminacy, infinity and resolvability (Wurth, 2009); inspired from Freud's account of the interaction between life and death. The importance of highlighting music itself and "how it hears here" (Wurth, 2009, p. 9) is emphasised by Wurth within the space it is experienced; alluding to supporting theories in favour of exploring the importance of the musically sublime within the context of the space it is contained.

The sublime is important to study when exploring sound and context within a space because it provides a sociological viewpoint on a scientifically intensive area of study; concentrating on the person and the experience of affect it can create, rather than how the sound resonates in a room, for example. The space alone, such as a music venue, can illicit feelings of the sublime "in terms of limitless magnitude" (Kant, 1790). However, it is the sublime of the music itself within the context of an already great space which can cause a person to feel these emotions of the sublime, whereby this area of study focuses on; providing an avenue to explore why these emotions occur. However, it is important to acknowledge other areas of study which focus on the scientific aspects of sound and space. The psychoacoustics of a space can have a great influence on the sound within it; causing the listener to react in ways which merit the music sublime.

Psychoacoustics

“Psychoacoustics combines the study of acoustics and auditory physiology to determine the relationship between a sound’s characteristics and the auditory sensation that it provokes” (Lorenzi, 2018). This area of study is integral when highlighting the importance of a spaces context when impacting a sound and the way in which a person reacts to it as its goal is “to understand how people perceive and experience sound” (Davies, 2020).

The study of psychoacoustics is mainly built on the foundations of German physician Helmholtz, with his explanation of sensory consonance being largely supported by modern psychoacoustics; “His explanation of harmony was recognized as an outstanding, ingenious cultural-historical approach, which in addition was based on psychoacoustic preconditions” (Yost, 2015). However, Pressnitzer provides contrasting critique towards the reliability of past research developed by psychoacoustics, believing “it is necessary to take precautions” (Pressnitzer, 2000, p. 47). He argues the quantitative data obtained from controlled laboratory conditions doesn’t reflect or acknowledge the copious extraneous variables of the outside world; “It is extremely complicated, not to say impossible, to establish a coherent ensemble from all of these sundry parts” (Pressnitzer, 2000, p. 48). Thus, would argue if tested elsewhere, would provide conflicting results. However, Pressnitzer does acknowledge this research “can serve as the basis for models” (Pressnitzer, 2000, p. 48), highlighting the importance of evaluating the validity of research acquired when exploring the relationship between space and sound.

Psychoacoustics coincides with affect theory and the sublime as it aims to explore the underlying emotional responses of society when experiencing sound. However, it aims to answer this using scientific studies; providing a different source of research compared to sociological or biological theories to provide a broader and comprehensive answer towards the importance of sound within space.

The acoustics and structure of a space can provide or create a new perception of sound within it as the quality and timbre of the sound react to its surroundings. For example, a flute playing within the lower register in a large hall “induces a perception of roughness” (Pressnitzer, 2000, p. 58) due to the spaces acoustics. However, if the same were played transposed to a higher register, it “would lose its meaning” (Pressnitzer, 2000, p. 58) due to

the spaces reflections and reaction to the sound. This is supported by French composer Grisey who believed “we are musicians and our model is sound, not literature, sound, not mathematics, sound” (Craenen, 2014, p. 258). This provides support that the acoustics and the perception of the sound within the context of its surroundings, the very basis of psychoacoustics, plays an important role in how sound is heard, thus experienced; highlighting psychoacoustics importance within the exploration of space and sound.

The study of psychoacoustics not only provides insight into a person’s emotional response to sound, but also provides solutions to practical problems. For example, the Salford Innovation Research Centre (SIRC) apply psychoacoustic research for “designing better environments, more appealing products and more effective regulation. We have done significant work on soundscapes, where we led a large project to characterise human perception of everyday sound and develop ways of improving the sound of the built environment” (Davies, 2020). SIRC have tackled important sociological issues involving sound within space such as noise pollution, with their aim being “to make the world sound better” (Cox, 2019); using psychoacoustic research to solve societal issues. The research created by the SIRC highlights the importance of psychoacoustic research being used, when highlighting the importance of the context of a space when hearing sound, as it provides solutions and insights towards societal issues and explores further the human perception of sound.

Conclusion

To conclude, the studies of affect, sublime and psychoacoustics have provided varying supporting theories from differing biological, sociological and scientific backgrounds to highlight the importance of how a spaces context effects the sound within it. Research by Ekman and evaluation of Massumi's work by Gibbs has exposed affect theories exploration of human nature and our innate emotional response towards sound and our surroundings. Wurth's evaluative work, exploring contrasting research of Burke's existential sublime critiquing Kant's romantic sublime, has also explored the emotional responses towards sounds effect within a space; identifying what makes a sound sublime and how the context of where this sound is heard amplifying a person emotional response towards it. This research coincides with affect theories exploration of motivating mechanisms, providing another avenue to explore societal response to the relationship between sound and space. Psychoacoustic research provides further perspective into space and sound, similar to affect theory and the sublimes research of emotional response. However, with its basis within scientific studies; highlights another supporting theory from another research background to provide further validity towards the importance of considering a sounds context within a space. Psychoacoustics provides quantitative data towards the relationship between space and sound; exploring the environments effect on sound and how this relationship impacts our emotional response towards it, whilst providing answers towards societal issues involving sound. These areas of study combined provide impartial and objective critique, evaluation and support towards the importance of sound within space, posing the question; why are we influenced emotionally by sound when heard within the context of its environment?

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