

What is Music to... Emotional Closeness despite Physical Distance

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After technical innovations and artistic avant-gardes, corona has given a boost to the digitally networked world. Information systems are booming and zooming into the distance, but the social, as an emotional "place" for physical action, is missing.

The epistemological media art that expands knowledge through bodily experience reflects on hearing and thus, on the avant-gardes of net-art in musical interaction. It considers the step into an auditory culture as a way of coping with life in post-digital cultures.

Implications of the separate as "ordered" life: working time and living time

The distinction of life into spheres, especially in separate places and times for work and family, is generally seen as cultivation of the sense of quality of life. What started in the feudal agrarian economy is dominantly an artefact of industrialisation. Generally, a differentiation into mechanistically rational and hedonically emotional domains occurred, which were then carried forward as gender-specific "role-plays" and power-distributing forms of life that defined the public and private spheres. Determined by the steering mechanisms of the new world of work in an information society; neoliberal, economically determined social systems place formal life before informal life, thus, norms from the sphere of work outshine life. Their diversity in postmodern cultures gives the individual the appearance of individuality and informalisation, broadly.

Business style determines neoliberal everyday life. The extensions of the body, clothing and language as medial forms of interaction, are taken from the field of work. The reduction of communication to information transfer is generally accepted, non-mechanistic as non-rational hedonic behaviour is only allowed if it produces more efficiency. These forms of digital cultures are mechanistically rational, hedonism only serves as a tool for success.

Derived from embodiments of mechanical interaction of the body with the environment, rules of living together are based on mechanistic ways of thinking. Social rules follow the modern idea of feasibility, including power. What appears as order is order and reduces informal self-structuring and thus, individual responsibility.

In the process, the needs of the body are excluded as hedonic regulation of life and relegated to privacy. Technical distance from the interaction of the body with the environment reinforces this; on the other hand, it makes the lack tangible and conscious: informal, and at the same time ethical, behaviour as determined by arousal, anchored as a natural basis in the arousal-based drive to prosocial behaviour as a survival force, are pushed back.

At the same time, the neoliberal world is a hedonic event culture, if through achievement or "aggrederere", which is linked to social aggression. Overcoming the human measure does not only lead to a hedonic experience (Pfaller2011), it leads to feasibility and power, with social power being better distributed in social media. The hedonism that results from overcoming nature overcomes hedonism as life with nature: a life regulated by the pursuit of the homeostasis of excitement between tension and resolution.

Beyond this normative arousal, cultural regulation is generally the suppression of emotion in favour of reason, whereas arousal naturally regulates all interaction.

It was popular cultures in the 20th century, as youth cultures, that brought the nature of the body into a body culture. This culture is a sonic performative: it is dominated by the sound of popular music, and amplified being moved by arousal, which in turn amplified social/political movements.

It is theories of post-digital cultures today that necessarily bring the hedonic body into virtual worlds, because the mediatisation of the mechanical body made the body useless (Baudrillard, 1981), reduced space and time to the all-at-onceness of the auditory space (McLuhan, 1995), brought a transgression of the mechanistic paradigm (Jauk, 2003) and a cultural push towards the hedonic.

However, it took the life-threatening corona pandemic to generally recognise the value of excitement-based hedonic behaviour as a natural social regulator of life, in the experience of its absence.

Part of the means of production was the workplace. In the information society, this is ubiquitously no longer separate from life. This in turn, requires that it become a form of life, that networked information systems not only transmit information, but also enable the physical processing, the "hand"-ling of the negotiation of information in a collective action dynamic.

The home office of the future not only reintegrates work into life, but also returns working time to life, by limiting it to working out what life needs. Because working time is not the time that people need to sustain their lives. In capitalist systems, it includes surplus labour, which brings capital and leisure to the owner of the means of production. "In capitalist society, free time is produced for a class by transforming all the life-time of the masses into labour-time" (Marx, 1962, p. 552).

Though forced social distancing and "mere" physical distancing are necessary to fight corona, both are related in a physical world. On the basis of this knowledge of the body, mediatised life, as distanced from corporeality, needs emotionality as a regulative. Above all, the remote sense of hearing, and its formalisation through music, achieve this: the transmission of being e-moved through movement, since sound is nothing other than an artefact of movement that touches and moves people through the movement of air.

**The nature of physical and emotional proximity and ethical/social implications.
Is the law's word the mediatisation of the body's arousal?**

Being touched bodily is a natural part of arousal-based body-environment interaction as an exploratory behaviour to ensure survival. It determines not only interactions of the body with the material but also with the social environment, and so is always emotionally charged. It gives "primary meaning" (Wirth, 2007) to action as bodily meaning through arousal, plus some kind of meaning of an "indexical threshold zone" between "vegetative semiosis" and "animal semiosis" (Kull, 2009). Nevertheless, this has an ethical and emotional socialising effect on humans; with aesthetics as its perfect playing field. Hearing is the most arousing sense, even at a distance. An auditory culture brings corporeality into media cultures, and makes them human.

The results of the Milgram experiment in the aftermath of World War II were interpreted as a blind acceptance of authority; today, they can also be attributed to the mediatisation of bodily knowledge through external information. Well understood as information, this is implemented without tangible meaning for the body as its excitation, which regulates its action.

The meaning for the body consists in its being affected by information, that is, by any form of stimulus that arouses it to act. In contrast to the meaning-giving unmediated action of the body on the basis of its experienced arousal, mediatised negotiation is decoupled from this. This bodily meaning is also linked to the "nature of ethics", where mediatised behaviour is more likely to be decoupled from ethical action. Milgram's subjects gave lethal electric shocks to people according to the instructions of the experiment directors. However, when they heard the physical meaning of these for the person concerned, their willingness to do so was much lower.

Aggression, in the form of information about negative events, finds more distribution in the social media than information about positive events. Media politics takes advantage of this; populism, as a media presence of aggression, dominates media communication and becomes a general tone. Physical interaction is needed to live ethics as humanity.

Not only technical as mechanically instrumental interaction but also cultural mediatisation as legal regulation of social interaction needs corporeality to overcome its limitations.

Highly mediatised life distances itself from human life as long as it does not make these bodily correctives of interactions to be experienced. The efficiency-oriented industry has recognised this, and brings in human measures in wo-man-machine-interaction. This measure is no longer the measure of all things, where the mechanical body is extended through mechanical media, but of the hedonic body as the measure for the behaviour of all "things"; behaviour that is intentional as excitation-controlled, in its phylogenetically deep ground of perception as behavioural explorative intentional Body-Environment-Interaction / B-E-I (Gibson, 1982).

Formally regulated social life can be considered as mediatised life. Regulations become media for behaviour that are ultimately detached from their own responsibility, their bodily basis of meaning. Such mediatised behaviour runs the risk of just executing norms as laws and of being judged (by those in power) as "correct". Social behaviour is thus dominated by formal structures; informal structures are excluded as disruptive behaviour and considered politically incorrect.

Formal hierarchical structures in the world of work are legitimised by the possession of the means of production, in the information society by knowledge, or by knowledge about the organisation of external knowledge. In the process, it is, above all, the close relationship that is regulated and freed from physicality. Physically un-negotiated, purely legal equal treatment as mediated by physicality, does not

lead to humanly neutral behaviour—should there be such a thing—but to inhuman distancing behaviour. As leadership behaviour in the workplace, this is sometimes medially aggressive. In neoliberal cultures, it increasingly dominates public behaviour. The behaviour of closeness is formally excluded and hushed up, it is a matter of separate life, of privacy.

The merging of the two fields of life in the home office, through the fusion of mediatised and real forms of life, could soften these diverging cultures of emotional roles, and tie public life back to corporeality as a lived ethic of emotional co-experience.

Negotiation, as the co-experiencing of "handling"-action apart from information, allows experience to take precedence over reason. In brief, moral ethical behaviour is basally determined by arousal, as is also the case for aesthetic behaviour. Both are primarily determined by arousal as a survival-relevant control of B-E-I according to its "affordance". One is necessary for survival, the other is the pleasurable play with it required to perfect it. Aesthetic behaviour can thus be considered a corrective of the information society towards a communication society: music as a formalisation of hearing, of primarily precognitive perception and of the immediate collectivising movement, is an adequate paradigm for this, apart from the cognitive processing of what is seen formalised in visual art or symbolic mediatisations of bodily behaviour, formalised in language via literary artforms. Music is based on the production of sound through arousal, and the bodily process of the dynamics of tension. It is a solution emerging from the sound and causing the sound to be unmediated in reception. Making music plays with these embodiments; music formalises this natural force in the referring thought mediatised. Polyphony is the "objectivation of the we" (Adorno, 1947), a dynamic form of communication as an excitation-conditioned togetherness of the independent "I". Embodiments from hearing directly form from primarily excitation-conditioned bodily interactions, cognitions arising from this mediate these, and lead people to a respectfully humane togetherness.

It is not only our formal life that is regulated by legal norms; virtual forms of interaction are regulated by predetermined structures, by mechanistic ways of thinking and rational forms that mostly exclude hedonic interaction. Even though they are called social media of communication, they are ultimately information systems. They reduce social interaction to simple comments, their evaluation to simple emotional feelings. Under the social pressure to conform to socially desirable behaviour, these are accepted en masse. Negotiating becomes acting according to predetermined social choices.

Information can be unambiguously distributed through the media; communication is a process of negotiation, of physical action in situations. The meaning of this dynamic for the body is expressed by the body, regardless of the symbolic expression of states.

Information systems are to be enriched with this corporeality so that they can become communication systems. Instead of the specification of formal structures, informal structuring regulates social systems. This is connected with the cultural shift from the dominance of visually dominated thinking to auditory bodily experience. Embodied cognitions from vision are the measuring of the mechanical body in relation to the environment in states that the body has taken up through its movement. This measurement is formalised in geometry. As a generalisation of the body's own movement, the relation of the states as caused by "shocks and thrusts" (Lévy, 2000) is formalised in causal thinking. In this way of thinking, movement loses itself in reaching its goal as goal-directed motivation. Hearing, on the other hand, is the experience of the movement itself, of its internal excitatory power of potential shaping.

This means leaving the idea of thinking and social systems rationally regulated in formal structures of states and turning to the dynamics of informal self-regulation by the excitement of bodily interactions; leading to an auditory-emotional culture, to a world that shapes itself close to nature according to the needs of the body.

The stimulation of worlds as auditory cultures

Tension is the intentional force of all body-environment interaction, while hearing is the most excitation-based behaviour that directly moves the body's state of excitement. Music is considered the aesthetic formalisation of hearing.

Physical tension shows itself directly in the sound of voice, the dynamic progression of the sound of the voice, generally in the sound-gesture, directly experienced and immediately emotionally contagious (Hatfield, 1994). Tension, determined by the intensity of what is perceived, cannot inform us about content, but it can inform us about its meaning for the body; it is formalised in music, and has been clothed in a system of thought through the coding of the sound-gesture for notation in Western cultures.

What tension is for the body—solution through sounds—is now for thinking, referring to relational thinking (Jauk 2012, 2021).

Original music builds on this just as much as high-cultural music. Functional as dance, work and relaxation music, and popular as music of technically "amplified" acoustic driving effects (Harrer, 1975) are sonic performative musics. What is formalised in music is generally effective in the sonic.

But arousal is not the same as a feeling, it is a dimension of feelings that has an immediate activating effect and that can be experienced independently of this as evaluatively pleasing or not-pleasing. In cultural semiological systems, the corresponding experience is named by means of emotion categories. The experimental comparison of emotional behaviour provocation, according to dimensional and categorical form, shows that precognitive stimulation leads to body-like experience, whereas cognitive symbolically naming information is socially desirable as cultural behaviour (Jalen, Jauk¹). This confirms the more bodily stimulation of sound.

Hearing is the most highly developed remote sense. It does not perform information transmission, sound perception is abstractly (Carmiaux, 2011) arousing the body by giving the presence of being within any kind of interaction. The indexical character of sounds, the reference to their cause, only arises through the merging of cognitive information, from seeing, with hearing.

Sound is an artefact of movement that sets us in motion. Its modulation by propagation through the air is perceived as spatial movement around the body in a whole-body way, with the body being immersed within sound. The body is aroused and thus stimulated to move with it, even in micro-motions in social situations while "standing still" (Jensenius, 2017). Although culturally reinforced, this phenomenon has a natural basis. Arousal is primary meaning as a precognitive meaning of movement for the body, which sets it in motion to behave in a way that is relevant to survival. This describes the empirically supported phenomenon of "sound-gesture" (Godoy, 2010), the base of musical meaning and the paradigm of hedonic interaction (Jauk 2021). Furthermore, the resulting movement has an immediate communicative effect through imitation of the movement. The internalisation of this movement leads to emotional contagion (Hatfield, 1994). Sound thus has a direct emotional communicative effect that is collective and collectivising.

Sound thus performs the communication of movement as its pre-cognitive meaning for the body through arousal. Excitation-related movement of the body is stored as embodiment, as body knowledge. It can be triggered by similar stimuli.

Autonomous Sensory Meridian Response (ASMR) uses the amplification of proximity and thus the effect of sound as movement around the body as emotional proximity. At the same time, it couples the cognitive indexical character with vision.

ASMR describes the triggering of embodiments through the sound of touch as bodily perceived touch, as qualities of arousal that go hand in hand with the sound that is heard. What is precognitively stimulated is cognitively contextually amplified and sold as sensual emotional proximity, goosebumps through hearing touch. Although not confirmed, it is sometimes experimentally found (Cytowic, 2009); the most plausible explanation assumed a remnant of the social grooming of primates (Huron, music psychologist), which however leads to a longer lasting immersive "relaxing" experience, in contrast to the shorter term reactions in the form of attentive behaviour as frisson evoked by sound (Dunbar, evolutionary psychologist) reports Sean T. Collins (2012), based on corresponding interviews. Even so, a close relation might exist to the experimentally affirmed effect of sound by its temporal structure as "acoustic driving effects" (Harrer, 1975). The attack-time and repetition of sound and, by this, its dynamic of intensity—the amplitude and frequency perceived as "sharpness" (Bismarck, 1974)—leads to almost synchronous physical arousal in the case of given "reagibility", the openness to "react", to experience.

In the interrelation of impression and expression, hearing sound is a stimulant of communication, of becoming together, a paradigm of emotional communication.

The task now is to transfer this touch to other sensory modalities, and thus to integrate the body multimodally into a multimedia environment of emotional touch that mutually forms itself in communication with other bodies into common human worlds of experience; that is, across physical distance, through medial physical proximity.

Multimodal stimulation of bodily closeness by the paradigm of sound-gesture

¹ first results of a previously unpublished experiment testing e-motion of the sound-gesture by extracting patterns of playing-behaviour of "emotions" on air-guitar out of motion by motion tracking.

Now, it is necessary to extend this natural body-oriented stimulation of hearing movement and its physical arousal of emotional moods to the body as a "complete agent": sound-gesture serves as a paradigm for shaping other modal sensory impressions in order to produce arousal and, as a result, emotional proximity. In general, embodiments from the different modal perceptions are stimulated. As the most highly developed "lower" sense, hearing can be directly transferred to the experience of other sensory stimuli, mediated by the air. Hearing is the phylogenetic differentiation of tactile, olfactory and taste perception: it is the extension of corporeality into the "distance" of the environment.

Seeing is different, in that it is accompanied by physical movement of the body, the creation of visual fields in the direction of movement, and the cognitive designation of what is seen. Seeing overrides the lower senses in multimodal perception and gives secondary meaning to the primary meaning for the body: from indexical recognition, to iconic and finally symbolic designation, which is part of a dynamic process of semiosis as cultural process, as biosemiotics assumes.

It is a matter of doing cultural justice to seeing its originality in intentionality, in the sense of its pre-enlightenment meaning (Mauthner, 1923). With regard to its emotional qualities, the basis of all perceptions is intentionality as arousal due to the "affordance" of a stimulus (Gibson, 1982)—primarily through its intensity—in the environment. Hearing is the precognitive perception of this intentionality, of the arousal value of moving stimuli. Seeing has this kind of excitatory effect through movement in the space-time structure before the object of the movement is cognitively recognised and semiologically named.

It is now necessary to trigger such embodiments of explorative behaviour through corresponding movement in connection with their sound, in order to stimulate emotional proximity. The intensity of such stimulation will naturally provoke experiences of closeness, which emerges, with activation, as a dimension of feelings. The emotional evaluative dimension is related to the increasing activation in an inverted u-shaped relationship (Berlyne, 1974). The naming categorical quality is negatively determining given by the activity sensations; namely, which quality high or low arousal cannot be (Behne, 1982). Emotional closeness will not be aroused metaphorically with "empty words", but abruptly, with medium intensity and—at the same time—high clarity of the stimulus: an embodiment from close perceptions. The breath of the voice pleasantly arouses the body.

Unlike word- and icon-based social media, TikTok was originally the physical video karaoke with the technical possibilities of the video studio as an app on the mobile phone (a form of merging art and life in video art today), for the individual re-creation of pop songs as the showing of oneself in the experience of its sound. It is a participatory performance of privacy made public, whereby the sonic is performatively transferred into visual form. Even if these collective and collectivising social mood-managing techniques are located in the popular realm of the experiential, as socially lived private culture after the net-arts and their general availability, the merging of public and private post-corona can build on this and bring emotional behaviour as human behaviour into business culture. Despite fashions, it is precisely the sound-dominated youth as popular culture that has brought essential thrusts to the informalisation of body cultures. Respect for the ethical, social and aesthetic self-regulation of life holds the chance that life post-corona is lived close to nature and the demand of art and life is redeemed in the nature of excitement-based interaction.

Finally, hearing is the phylogenetic optimisation of the effect of intentionality of body-environment interaction. The transfer of this component to any interaction, especially mediatised disembodied interaction, makes it human and, in this sense, "close".

This enrichment of symbolic information, with its primary meaning for the body through hearing, transcends the age of information and leads digital culture into a post-digital culture, as a human culture of communication—as an auditory culture.

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