

Paper presented in the symposium Music and ecologies of sound.
Theoretical and practical projects for a listening of the world,
University Paris 8, May.

**But does the world listen? Some thoughts on communicative bonding
between humans and the sounding world.**

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This paper arose out of my recent interest in rhythm, where I have been trying to think about rhythm not so much as a temporal aspect of music but more as an aspect of social practice (Nelson, 21012). This clearly relates to the work of writers such as Henri Lefebvre and Gaston Bachelard, as well as to the more ethnomusicological writing of Steven Feld and Charles Keil. But it also arises through some strands of research currently underway at the *Institute for Music in Human and Social Development* at the University of Edinburgh, concerning child development, language acquisition and the neural timing mechanisms. Finally, the rhythmic aspect of this paper gave way to more ecological and aesthetic concerns, and remains to be developed further, but I want to be clear that rhythmic interplay was the idea at the start of the thought process.

The introduction to this colloquium on Music and Ecologies of Sound proposes 'ecology of sound' "as a relationship between music or sound and *oikos*, the common home, the world". It is clear that this relationship is indeed special and fundamental: the world, for example, is not bathed in sound as it is bathed in light; there is no sonic equivalent of 'darkness', and the fact that we hear without the aid of a source of sonic 'illumination' gives sound an inherent energetic quality, un beholden to any

extraterrestrial power source. Every sound is evidence of a particular, earthly vitality, and the provenance and impact of these vitalities is of course the business of sound ecology. What I want to do in this paper is to explore the implications of regarding that vitality as spread evenly over the world, in other words, as evident without necessarily prioritising human agency. This follows the lead of a number of contemporary thinkers, Felix Guattari, Bruno Latour, Cary Wolfe, Jane Bennett among others, in arguing for a reconsideration of the way in which humanity situates itself, in each of the ecologies proposed by Felix Guattari: the environmental, the social and the mental, or in the words of the colloquium proposal, nature, society and subjectivity. What can we learn from this endeavour? What would it mean? The key term in the discussion seems to me to be 'listening', and the key question the relationship of listening to sound.

Listening "as a discrete activity that has value in itself" (Cross, 2010, 67) as Ian Cross describes it, has been the focus of a great deal of thought, not least in the course of this colloquium, and the nature of its 'discreteness' and the sense of its 'value' have been the subject of much debate. As Georgina Born puts it, "what is it to listen, and how should we conceive of listening? Or: how should we frame, or what are the boundaries of, this activity called listening? Does it take place within the mind, or (also) within the body? Is it something that is primarily individual in its operations, or that is socialized and encultured?" (Born, 2010, 80) In his astonishingly erudite book, *Sinister Resonance*, David Toop speaks also of the "mediumship of the listener", proposing the act of listening as accessing the uncanny and even the inaudible: sounds represented within the silences of books and paintings, and intuited out of the atmospheres of rooms, spaces and geographical locations, as if listening were also a sort of 'sixth sense', attuned to those vitalities that evade corporeal presentation. Agostino di Scipio has

spoken of “the way we make ourselves present to sound”, which proposes listening not as reception but as an active engagement with the world through sound. These debates, beginning long in the past, clearly arrange listening within psycho-physical perception, neurology, culture, communication, systems of value judgement and so on, but always **as they relate to the human subject**, either as the endpoint of a flow of sound whose trajectories are so neatly categorised by Pierre Schaeffer in terms of the externality of their sources, or in di Scipio’s terms as a point of engagement in a sonorous field. Following the notion of symmetry espoused by Bruno Latour and others, I would like to think through the consequences of supposing that listening is as uniform an operation as sound production, in other words, what is it to say that not only human subjects listen? Does the world listen? What could that question even mean?

The ecological perspective has already been thoroughly explored during this colloquium, but it is worth recapitulating what I think are some of the fundamental premises, in relation to listening. Rosalia Martinez, for example, spoke eloquently of the way a musical practice can mediate between what we understand as ‘nature’ and ‘culture’, and of the ways in which a musical practice can include non-human entities such as plants and birds. However these practices build on a sense of ecology whose space of engagement is constructed in a certain way. As Eric Clarke puts it,

Rather than considering perception to be a constructive process, in which the perceiver builds structure into an internal model of the world, the ecological approach emphasizes the structure of the environment itself and regards perception as the pick-up of that already structured perceptual information. The simple, but far-reaching, assertion is that the world is not a “blooming buzzing confusion”, but is a highly structured environment subject to both the forces of

nature (gravity, illumination, organic growth, the action of wind and water) and the profound impact of human beings and their cultures; and that in a reciprocal fashion perceivers are highly structured organisms that are adapted to that environment.

(Clarke, 2005, 2)

In this understanding, structure is 'out there', independent of both world and human but imminent in both equally. Music would arrive as a special case of this structured relationship, bringing with it social and cultural factors with an equal symmetry. What is interesting here is that many of the *proceeds* of listening are already seen to be present within this symmetrical structuring. In this account, sounds arrive to a listening subject already ordered, and source and listener are presented as being in a symbiotic, adaptive relationship. Why should listening and sounding introduce an element of asymmetry here?

It is not just that the *soundscape* presents an index of purity or pollution [Schafer, 1975], or an auditory scene for disinterested contemplation [Cage, 1961; Bregman, 1994]; it *enchants* us (from *in-cantare*) and thus informs our mythic imagination as well as our sense of situation and belonging. I will propose that that enchantment implies a response. We could say that enchantment is a sort of resonance, and theories of resonance have featured significantly in historical accounts of listening, as well as in the actual development of technologies of sound. In his discussion of the Orpheus myth, in his book with Slavoj Zizek, *Opera's Second Death*, Mladen Dolar proposes opera as an image of a music - and here for a moment I will take music as a shorthand for human sound in general - that goes not to the human subject but from the human subject:

Orpheus descends to the underworld to gain back his beloved Euridice, and he has only one tool, one instrument to achieve this goal: music. *Music is what moves the deity to yield, music can defy death itself.* (Zizek & Dolar, 2002, 8)

Leaving aside for a moment the particularities of the plot-line, with its specific otherworldly Deities, this account of the purpose of music proposes what we all know: that sound proposes a listener, and that its effect is to draw the listener into a communicative enterprise. Dolar goes on to describe this enterprise as follows:

... music acts as an appeal to the Other, as the best means and the best strategy for attaining mercy, softening the Other's heart, bending the Other's resistance. ...

Mercy is ambiguous ...: it is nothing but the positive, reverse side of another form of the Other, both more familiar and more terrifying - the Other's whim and caprice.

(Zizek & Dolar, 2002, 10/23)

The fact that here music is addressed, in image and in actuality, outwards from humans to the world, seems to suggest that somehow the world is listening. Without figuring this as some sort of spurious anthropomorphism or mysticism, I want now to consider some recent accounts of subject formation, before returning to this idea to consider how it might help us to understand a possible resituation of the human within the world soundscape.

In the introduction to a forthcoming volume entitled, *The Birth of Subjectivity*, Massimo Ammaniti and Vittorio Gallese review the nature of human subjectivity in the light of recent experimental findings in the field of cognitive neuroscience. They are anxious not to propose some reductionist account of human nature, but instead to enable, "the deconstruction of many of the words and sentences we normally employ when referring

to ... human nature.” (2) There are two insights that arise from this account of human subjectivity which seem to me to have a strong bearing on the current discussion. The first concerns the nature of the communicative engagement which develops at the very start of life. Ammaniti and Gallese write,

the rhythm, synchronicity and asynchronous engagements humans systematically - and from the very beginning - experience in every inter-human relationship mark the birth of intersubjectivity. (7)

This intersubjectivity has to rest on some clear sense of self and other, and here Ammaniti and Gallese adopt what they call the ‘second-person approach’. Michael Pauen describes the three necessary requirements for this approach, as follows:

First, it has to draw on a replication or imagination of the mental state to be recognised; Second, it must include a self/other distinction, so that the epistemic subject is aware that the state being replicated belongs to the other; Third, it must enable the epistemic subject to recognise his epistemic situation as different from that of the other person. (5)

However, “such requirements do not presuppose the epistemic subject being explicitly aware of them.” This surprising insight underpins Ammaniti and Gallese’s discussion of the so-called ‘mirror-neuron’ system in the motor cortex, where the observation of the actions of another excites the same cortical area as control those same actions when carried out by the observer themselves. This shows the understanding of the other to be endemic and internalised, rather than arrived at by some sort of rational thought. As Ammaniti and Gallese put it, “data suggests that already early in life one’s own action experience is closely related to how the actions of others are perceived.” By ‘early in life’ they specifically mean, before birth.

The second insight, which relates closely to the first, is that the nature of this internalised experience of the other sets up the human subject as a “we” rather than as an “I”. The sense of self appears to arise from an earlier state in which sharing prevails. In their discussion of this, Ammaniti and Gallese borrow a terminology from the philosopher Martin Buber, who speaks of the human subject as an I-you, or an I-it. Gallese writes,

What distinguishes these relations is not their object but the relation style, or to put it in more technical words, the epistemic status adopted by the I. One can relate to another human being in the same way as one relates to inanimate objects. Similarly, one can relate to inanimate objects like a landscape, a tree, or a work of art, like relating to another human being. (6)

The final, and perhaps most crucial point to note here, is that the mirror system in the motor cortex responds to sound as well as sight, thus the sound of an activity will result in the same motor activation as the sight of that activity. (cf. Kohler et al, 2002)

These two insights seem to me to have potentially interesting consequences for the consideration of sound ecology, and for thinking through the relationship between humans and the sounding world. In the first place, Ammaniti and Gallese’s neurobiological story proposes a mechanism which binds human to human, and human to the world in a highly intimate way. This is already the type of intimate relationship proposed by, for example, the anthropologist Tim Ingold, who in his account of landscape and environment is at pains to neutralise any attempt at the polarisation of subject and habitat. For Ingold, the landscape is a concept in parallel to what he calls the *taskscape*: that is those events, actions and activities which mark the environment as a living and inherently socialised site of change. He writes,

If, as (Margaret) Mead argued, every object is to be regarded as a ‘collapsed act’, then *the landscape as a whole must likewise be understood as the taskscape in its embodied form*: a pattern of activities ‘collapsed’ into an array of features. (198)

This means that the human subject cannot be some sort of idealised observer, but is intimately bound into the site of their habitation. This binding, as we have seen, is through all of the senses, and is engaged by the *I-it* of subjectivity.

Now subjectivity and intersubjectivity are developmental. The literature around infant development, particularly the work of developmental psychologists such as Colwyn Trevarthen and Daniel Stern, shows clearly that the glue of intersubjective communication is rhythm - most specifically through sound, though action also clearly plays a part. Agostino di Scipio registered an apprehension about the term “communication”, and I understand his hesitation. Communication is often understood in a semiotic sense, where information is somehow directed along channels. But rhythm introduces a different aspect, related more to the notion of resonance. Mothers and infants develop their communicative bond from the basis of the *I-you* through rhythmic interplay, and in this context to make a sound which is unanswered, or even a sound which is answered with the wrong timing interval, is to provoke a disruption in the process of communication which has emotional rather than informational consequences. If Ammaniti and Gallese are correct when they say, “one can relate to inanimate objects like a landscape, a tree, or a work of art, like relating to another human being”, how does this relationship with the inanimate world develop?

Here I want to recall Mladen Dolar’s account of music as “what moves the deity to yield”: as a communicative gesture directed, at the least metaphorically, as an appeal

to an other. If our connection with our environment is as neurologically intimate as Ammaniti and Gallese suggest, then one might *expect* the sound of the world to elicit a response from us, and for our response to be directed back to the world *as if to a listener*. Theodor Adorno seems to acknowledge such a response in his essay on Natural Beauty, where he tries to establish the contingency, the terrifying and uncertain beauty of the natural world. He writes,

... appearing nature wants silence at the same time that anyone capable of its experience feels compelled to speak in order to find a moment of liberation from monado-logical confinement. (trans. Robert Hullot-Kentor)

This image puts the human supplicant before nature, as Orpheus before Hades, pleading for their own life in the sense of seeking recognition, as a child from a parent, and the compulsion to speak clearly proposes that nature might listen.

In order that this line of thought does not appear too fanciful, I want to conclude by considering some of the consequences of this balancing of the communicative system, whereby as we listen to and register the soundscape, we also suppose that our own sounds are listened to and acknowledged. The first consequence follows the arguments put forward by the philosopher, Jane Bennett, who in her book, *Vibrant Matter*, considers the effects of acknowledging a more even distribution of agency in the world, and “the active participation of nonhuman forces in events.” Bennett suggests that our current ecological problems will not be solved as long as humans beings maintain their supposed dominance. What happens, for example, when we characterise a human society as the habitat for rubbish, revealing that rubbish to have its own distinct powers of agency? In the same way, one might say that proposing a listener other than ourselves could enact a similar levelling of the hierarchies of force and

agency. The human is no longer the only listener, and is thus relieved of responsibility as the sole locus of power. As Bennett puts it, “perhaps the ethical responsibility of an individual human now resides in one’s response to the assemblages in which one finds oneself participating.” Acknowledgement of the natural world not just as a source of sound but also as an active and listening participant removes some of the edge from human projects of objectification.

The second consequence concerns our communicative practice. Ammaniti and Gallese’s point is to show how contemporary neuroscience helps to rebalance the ‘I’ of subjectivity to a shared ‘I-you’ or ‘I-it’, where communicative listening binds the hearers in a sense of sharing time. What actions might we take, or efforts might we make if we supposed we were being listened to by the natural world which surrounds us? What responses would we wish to evoke from such an other listener, and what processes of rhythmic and communicative learning might we enable, in order to ensure that we were heard.

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