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Bounding and breaking

An inquiry on the voicing of acoustic territories

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Abstract. *In most urban settings, the multiplicity of human voices in a constant state of acoustic irradiation is overwhelming. They define territories, in conversation, in public transportation, in the, sometimes awkward, transitions between private and public place. They resonate identity, they are biographical sound happenings and they turn every listener into a bearer of this shared individuality. In the context of my interdisciplinary PhD research on voice as acoustic presence, inquired through the scopes of phenomenology of sound, and artistic research in the realms of documentary and sound art, this paper aims to discuss the voice as a modulator of acoustic territories in both its transgressive and communal potential.*

Keywords: *phenomenology of sound, voice, intersubjectivity, acoustic territories*

Admittance

Attempting to think in a foreign language is a fascinating exercise. In the academic environment, most of us have been exposed to this challenge – that of acquiring a new language, usually both to access original authorial sources and to express ourselves in a different linguistic context. Some of us are motivated by the passion for an author or a culture. Others are motivated by the peripheral nature of their native background and by the ambition to move closer to a perceived center of one’s own field of research. Sometimes this new language acquisition is experienced as a form of violence, even if mostly self-inflicted, other times is just like a love affair: a deliberate, ecstatic and vertiginous plunge into the other.

No matter what the context and nature of the experience of language acquisition, there are a few special moments that are quite unforgettable. For instance, the many tragi-comic circumstances brought about by the training of our phonatory apparatus – lungs, vocal folds, mouth, teeth, tongue, etc. – to produce successfully the strange and new sounds of a foreign language, which include the bizarre and mostly laughable choreography of pronunciation and melody. Or the suddenly acquired ability to understand, which usually precedes the aptitude of expressing oneself, either in written or acoustic situation, that which was before merely a graphic and sonic opacity of “looking or sounding like” at the very best.

Another moment that holds a particular fascination is that when one starts to think in a foreign language. Meaning, when one’s own inner voice begins to speak a foreign language (how foreign can it still be by now?), and the very fabric of thoughts that compose the inner dialogue of consciousness is changed into a new materiality, a new shape. We then welcome new sounds, new rhythms and new dynamics in our most intimate use of language, and are ourselves somehow changed.

There is mutuality in the permeability of language. It is a country, a continent even, with flowing borders and shifting topology. Whoever gains the skill of expressing oneself in a

certain language, also inherits the responsibility that lies in participating and expanding the reach of that language. As in Ray Bradbury's 1953 novel "Fahrenheit 451", where rebels fighting a dystopian society memorize a book each to preserve the exact memory of the text from the physical destruction of the actual books, he who acquires a new language becomes an avatar of that language, a sentient beacon of the thought-patterns and sound-shapes of that language.

Voicing Acoustic Territories

An essential way in which thinking and voicing oneself in a new language promise a reconfiguration of both reasoning and intuition, comes from being exposed to words-sound-shapes that hold a new potential for implicit meaningful correspondence, and having to face that with the sense of awe and inspiring surprise sometimes lost or numbed in prolonged exposure to the familiar automatisms of the mother tongue.

The English word "bound", which is present in the title of this paper, is a particular good example of this. As an adjective and past tense of the verb "to bind" it refers to captivity and to delimitation, both physical and moral. In its idiomatic form, used as "to be bound up with" it states entanglement, complex interconnection, sometimes to the point of near indistinction but always including a symbiotic element of systemic interdependence. As the infinitive of the verb "to bound" it suddenly shifts directions in the branching mind map of its implications, by referring to jumping, leaping over and beyond the reach of obstacles or deterring forces. Here, it even carries the sonic implication of its early Latin and Greek roots (*bombus/bómbos* – denoting both the noise of the drum and of the bomb) to the indication of an explosive quality. And finally, as the noun "bound" it returns to the meaning of border, frontier, limit. It seems like the word "bound" carries the full notion of "territory" in its multiple configurations, allowing for both the means to define it and the means to expand it, escape it, reach out from it, and even suggesting the liminal area where the permeability of any kind of frontier turns "in" and "out", "outside" and "inside", into very flowing and puzzling categories. It is exactly these multiple implications, that the word "bound" so gracefully carries, that we refer to when proposing a notion of acoustic territory based upon the uses and embodiment of the human voice, in its construction of intersubjectivity and as a driving force of individuation, taking place in everyday settings of human presence and interaction.

"Breaking", on the other hand, the second main word at play in this paper's title, points not only to the transgression of the containing and delimiting factor present in "bounding", but to the image of the collapsing of a "chain", one of the most acute metaphors that have been used to describe the interplay of human voices within conversation, or other forms of acoustic co-presence.

This commonplace notion of speech and dialogue as a chain of thoughts given sonic form and juggled back and forth between speakers as been stated by, among many others, the British historian and philosopher Jonathan Rée: "At its most elementary the idea of conversation designates a discursive exchange in which a number of different participants lay down their respective contributions to form a chain which, given a certain amount of skill and good luck, will turn out to have a certain narrative coherence, perhaps even a compelling logic." (Rée, 2001) This notion of conversation as a chain denotes the need of progression and the interdependence of the individual voices, as carriers of "trains of thought" (another chain-like metaphor). In this model of what a conversation should be, each speaker uses his or her voice to add both sound and meaning to what is essentially a serial performance. Following Rée, it is important to note that a conversation is open-ended in the sense both of the implicit improvisational element at play, and also due to the constant risk of "breaking the chain", for instance, either by misinterpretation, internal or external interference, such as noise impeding intelligibility, introduction of meaninglessness or confusion in the predictable course of reasoning.

It is this “breaking”, which can be voluntary or accidental, that traces more or less acutely the topology of what was “bound” in the interplay of voice and meaning. This breaking of bound meaning has become a performative category in itself, taking up fixed residence in comedy and humor, as one can find in such proponents of non-sense acrobatics as the Marx Brothers, Abbott and Costello, the Monty Python and many others.

This “breaking” also brings to mind the notion of “bound” that refers to a jump or an explosive movement, by acting as a stimulant of the reconfiguration of the conversation “chain”, by forcing the speakers to reconsider their positions and adapt, or even pursue a different subject or dynamics that has spun out of the previous. All these dynamics can be observed in the most common everyday situations where voices are brought together to exchange thought patterns, meaning, wherever people congregate and “chat”.

If one considers this dynamic interplay between bounding and breaking from the perspective of psychoacoustics, one finds an interesting parallel with the discussion of the masking effect and the notion of “streams”. The masking effect “can be described by the question, how loud must an acoustic event be to be heard in a particular context?” (Platz & Wharton, 1995). It refers to the way in which sounds, characterized by pitch, duration and intensity, and according to their distribution in terms of register, density and timbre, metaphorically struggle for dominance within a particular soundscape, and might interfere with each other, to the extent that a certain set of sounds might be rendered unintelligible, or even inaudible in its specificity, to the listener. This psychoacoustic phenomena, which is commonly used in musical composition, sound design for stage, on in the context of urbanism and architecture, and is essential in the field of acoustic ecology, is constantly at work in the definition of vocal-acoustic territories, in establishing the implicitly embodied rules of participation and expression of the individual in both public and private space.

The other concept borrowed from psychoacoustics, that of “streams”, refers, in musical terms, to the construction of a melody “in such a way that, through the disposition of groups of notes in different registers, the listener perceives it not as one but as two separate lines” (Platz & Wharton, 1995). If one transposes this notion of “stream” from the situation of musical composition to that of vocal interplay in everyday terms, it resonates clearly with the description of the conversational situation as a participative vocal chain.

Each voice appears individuated in the acoustic situation through its particular sonic characteristics. This individuation where a voice is experienced as a flowing stream, is experienced as being congruous or incongruous in a specific acoustic territory, according to the way it interacts with the other voices present, according to its rhythm, its articulation of speed, the spaces it creates for the participation of others, and the spaces that it chooses to fill when inscribing its own participation. These dynamics are at play in a situation where the meaning and its sonic fabric – the voice that holds and carries it – are both contributing in a perceived synchronicity, in an acoustic embodiment of meaning that becomes tangible in and through each voice in relation to every other voice. This temporal vocal-acoustic community of meaning exchange is the definition of territory, according to how the term being used in this paper.

If an attempt at definition has been avoided so far, it is to privilege the construction of a reasoning that should be as participative as the very theme of this inquiry. Nevertheless, in the interest of summing up the discussion so far, it is important to distinguish between the two terms of the expression vocal-acoustic territory, not forgetting however that there are indeed to be considered jointly. If we think of vocal-acoustic territory as a notion with multiple levels, we find that the acoustic border of the territory can be described as the reach of the sound of the voice. This is an exclusive border, in the sense that it is localized through the limit of inaudibility, the point where the voice drops below the level of silence or background noise from the listener’s perspective. Exclusive here means that this border is most effectively traced from the point furthest away from the vocal source.

Entwined with and dependent of the acoustic border we find the vocal element, that would, on the other hand, be localized through the limit of intelligibility, meaning, where access to the meaning carried by sound becomes impossible, where the voice carries no understanding to the listener. This is actually a double border, because it includes two distinct limits: that of intelligibility and that of acknowledgment of presence, because there is a zone where a voice is recognized as being a voice, even if unintelligible. It is also an inclusive border, in the sense that it is centered upon the presence of the voice – its double-folds of intelligibility and recognition radiating from its center, the source of the vocal manifestation.

Having broken down the different levels of this notion of vocal-acoustic territory, it is necessary to consider them together again in order to regain the understanding of its essential fluidity, and dynamic behavior.

A play of surfaces and inclusion

One of the most important characteristics of the notion of vocal-acoustic territory is its permeability. What it allows in, and configures as its own, and what it keeps out. Using the possibilities of contemporary sound technology, voices meet where the bodies cannot, and the very notion of embodiment points to a form of presence that stretches its own definition. Paradoxically in a sense but also predictably, the body has regained its importance in contemporary thought, in a time where the forces of disembodiment seem stronger than ever.

In the context of the dialogue between phenomenology and philosophy of mind, quite a few efforts have been made to theoretically sustain a description of how consciousness is engaged with the material world through the nexus of the body. The questions raised by voices, in their tension between the tangibility of their acoustic materiality, and the intangibly meaningful streams of thought they carry among individuals, seems to resonate quite strongly with some of these inquiries.

Clark & Chalmers "Extended Mind" theory is one of these theoretical models that might prove promising when transposed into our questioning concerning the nature of vocal-acoustic territory. "Where does the mind stop and the rest of the world begin?" (Clark & Chalmers, 1998), they ask, and their claim is simple: the mind is not only inside the head but extended into the world. By this they mean that the mind's psychic fabric, and its cognition processes, are always happening between the mind and the world. The mind involves the world, the mind uses the world to think, the mind happens in the world and is constituted by it.

To say that the mind is extended, means that it is not only embodied, but that the embodiment goes beyond the physical body where the mind is usually thought of being "located". It can also mean that the mind's "place" is everywhere, where "everywhere" means the world which envelops, contains, and where the mind literally is, through intentionality and participation. In short, each individual mind extends to its available world, therefore the mind's very own constitution is interactive by definition.

They name this perspective "an active externalism, based on the active role of the environment in driving cognitive processes" (Clark & Chalmers, 1998), and the focus is just as much on the "active" part as on the "external". Their reasoning is based upon examples that show "the general tendency of human reasoners to lean heavily on environmental supports" (Clark & Chalmers, 1998) might clarify any perplexity: "Consider the use of pen and paper to perform long multiplication (McClelland *et al.*, 1986, Clark, 1989), the use of physical rearrangements of letter tiles to prompt word recall in Scrabble (Kirsh, 1995), the use of instruments such as the nautical slide rule (Hutchins, 1995), and the general paraphernalia of language, books, diagrams, and culture." (Clark & Chalmers, 1998) And they add: "In all these cases the individual brain performs some operations, while others are delegated to manipulations of external media." (Clark & Chalmers, 1998)

In the same way, the fully human use of the voice requires more than just a healthy phonatory apparatus, and to possess some thoughts that need expressing. It requires a sentient acoustic space composed of resonant potential, both in literal terms and in metaphoric terms, when speaking of other beacons of consciousness to listen to it and respond.

If we think of a voice as an embodied extension of consciousness, this need to reach out into the world, and to participate in the creation of a resonating communal space, where sharing and exchange can take place, is recognized as its essential nature – the very fabric of the constitution of intersubjectivity.

Finally, as intersubjectivity implies individuation – formation of the both active and self-reflective identity of the self – we will now consider shortly another conceptual apparatus that might clarify the role of the voice in individuation and the constitution of the primordial acoustic territory – that of the womb soundworld and the foetus-mother sonic interaction. For this we will use the notion of “sound envelope” developed by the french psychoanalyst Didier Anzieu, in his 1985 book “The Skin Ego” (*Le moi-peau*).

Recent research in the field of obstetrics points to the intrauterine world as being one where intense sensorial stimulation is at work. According to a variety of medical sources “until the late nineteenth century babies were thought to be born deaf as well as dumb” (Valman & Pearson, 1980), but “in fact the inner ear of the foetus is completely developed by mid-pregnancy, and the foetus responds to a wide variety of sounds” (Valman & Pearson, 1980).

Studies that have focused specifically on the sound environment of the womb, such as that discussed by Gerhardt & Abrams in their 1996 article “Fetal Hearing: Characterization of the Stimulus and Response”, portrait it as being a low-frequency laden surround environment, filled with internal rumblings of the mother’s circulatory, breathing and bowel movements. The two rhythmic elements that are at the foreground of this “oceanic” embodiment that is the fetal sound world, and which persist as sonic references throughout the whole pregnancy, are the mother’s heartbeat and the vibrational frequency and pitch quality of her voice.

These experimental findings greatly reinforce Anzieu’s conceptual analysis of individuation in prenatal and early postnatal life. The notion of “sound envelope” is presented by him as one of the main configurations of the broader notion of the “skin-ego”.

Anzieu’s inspiration arose, in his own words, by the realization that: “From before birth, cutaneous sensations introduce the young of the human species into a world of great richness and complexity, a world as yet diffuse, but which awakens the perception-consciousness system, forms the basis for a general and episodal sense of existence and opens up the possibility of an originary psychical space.” (Anzieu, 1989)

By “skin”, Anzieu refers to, not only the epithelial container that fully covers our internal organs, muscles and bones – the “skin” that the dermatologist deals with, and that which we touch when we touch one another – but also “skin” as a notion resting on a analogy that refers to the psychic apparatus at work in the individuation of the Self. This Self in the continuous process of individuation is what Anzieu calls the “Skin-Ego”. We wishes to “place the emphasis on the skin as a basic datum that is both an organic and an imaginary order, both a system for protecting our individuality and a first instrument and site of interaction with others.” (Anzieu, 1989)

The potential of the skin as an element able to bridge the gap between the organic and psychic orders arises from the consideration of its three main functions, as well as a fourth potential that points beyond itself into the collective where individuation is actually meaningful. According to Anzieu: “The primary function of the skin is as the sac which contains and retains inside it the goodness and fullness accumulating there through feeding, care, the bathing in words. Its second function is as the interface which marks the boundary with the outside and keeps that outside out; it is the barrier which projects against penetration by the aggression and greed emanating from others, whether people or objects. Finally, the

third function – which the skin shares with the mouth and which it performs at least as often – is as a site and a primary means of communicating with others, of establishing signifying relations; it is, moreover, an ‘inscribing surface’ for the marks left by those others.” (Anzieu, 1989) These three essential functions of the skin – containment, barrier and permeable exchange site – are considered by Anzieu as also being the founding principles that both constitute and sustain the Ego. The notion of an Ego defined by these principles, a “Skin-Ego”, is thus presented as the constitution of a psychic apparatus “shaped” as a “psychic envelope”.

For Anzieu, while describing the different configurations of his notion of “psychic envelope”, as has been already mentioned before, the first and most important is the so-called “sound envelope”. This refers to the mutual recognition and sound play between mother and baby, before and after birth. The role of sound is essential to Anzieu in that, according to him “the sound space is the first psychological space” (Anzieu, 1989). He adds: “External noises, painful when they are sudden or loud, worrying internal gurglings which cannot be localized in any particular part of the body, cries that come automatically at birth, then in response to hunger, pain, anger and deprivation of the object, but which are accompanied by an active motor image – all contribute to forming that space.” (Anzieu, 1989)

This vivid description of the earliest psychological space of individuation is indeed the narration of an acoustic territory, one that inaugurates the sonic self-awareness that will in early postnatal life catalyse the emergence of the individual voice. Still, the essential nature of any notion of territory is that it is about belonging, a resonance of the ancient meaning of the word “ethos”, as being the natural dwelling place of a creature. Our voice not only expresses who we are, it sustains the very possibility of expression, which promotes life, personal evolution, continuity and awareness.

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