Tactile-sonic enactments – on the agency of air in “Untitled No2, 2014”

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How to think of, and to orchestrate material events for mixed sensory experience, the entanglements of tactile, aural and visual? I will approach this question as an artist-researcher, in conversation with science studies, Karen Barad’s philosophy and my installation “Untitled (2014)”. Here the focus is on the entanglements of the tactile and the aural, and on conceiving of an interactive installation as a materializing event, a multiplicity of agential cuts (Barad, 2007). Attention is drawn to the ways in which interactions of different human and nonhuman elements produce movement across trajectories of material transformations. Of particular interest are those movements, which involve the agency of air.

Materiality. Tactility. Media installation. Human-machine interaction. Agency. Agential cut. Enactment. Touch. Breathing. Air.

1. INTRODUCTION

In 2013 I set out to work on a project addressing the memories of the maternal body. I wanted to explore the idea of that body not as an object, but as an imaginary boundary, enacted and experienced on both sides: the side of the child and of the mother, respectively. The project resulted in three Untitled (2014) prototypes, dress-like sculptural objects that are numbered 1-3. The dresses are not wearable, rather they are like remnants of absent human bodies. But I was also interested in imagining ways in which the visitors might breathe life into these vestiges of lost maternal form. When touched, the dresses respond in various ways: by making sounds and movement or changing temperature. The Untitled prototypes can be seen to probe the boundary between the animate and the inanimate. They respond to touch not intelligently, but affectively.

The displaced morphologies and the distinctly feminine sounds, such as sighs, emitted by the prototypes, may suggest an amalgam of imaginary pleasures, occurring in the interactions with them. The cultural readings which they may evoke might then have to pass through the uneasy terrain in which the maternal and the sexual codes of femininity are mixed. In the following, however, I will approach the Untitled prototypes with a particular question in mind. How do they probe the boundary between the animate and the inanimate in those interactions they evoke? How to conceive them as

material arrangements that enact a certain sense of partial liveliness when made to interact with their audiences?

While working on the Untitled, my objective was not to create forms that would embody life, but rather to imagine interactive dramaturgies in which a sense of partial liveliness could be experienced through co-performances in which human bodies and the prototypes as technical-material artefacts are made to interact. I will suggest then, that the particular experience of partial liveliness of the Untitled prototypes should be understood as the enactive destabilization of the boundary between the animate and the inanimate co-performed by the prototypes and the participating audiences. I will then explore the possibility that this experience of partial liveliness which arises in the encounters with the prototypes is the effect of the convergent sensory experiences emerging in these co-performances.

Here I will focus on investigating the performative encounter at the prototype Untitled No2 more specifically. I will suggest that the sense of partial liveliness experienced in the interactions with No2 essentially depends on the convergence of two sonic events and the ways in which they fold into a more general experience of tactility. From the point of view of my artistic intentions, the air constitutes the theme that entwines the enactment of dyspnea, the shortness of breath, co-performed by the embodied visitor and the No2, with the technical-material organization of the prototype around the materiality of air.

In conversation with the installation I will ask whether we might be able to think of air as agency, or more specifically, how air might attain agency in those intra-actions, which occur at the interface of the Untitled, when it is being touched. In order to do so I will draw on science studies, and most specifically on Karen Barad's posthumanist account of performativity and agency. The article is part of a project in which I explore different configurations of touch, and how different sensory experiences converge in my installations, intertwining diverse sensations with the sense of touch. (Tikka, 2018) I have mostly been working on the relations between touch and vision, but here I will temporarily shift focus into the relations between touch and sonic experience.

2. ARTISTIC RESEARCH APPROACH

How to think of and to orchestrate material events for mixed or convergent sensory experiences?

For me the question above has two sides. From the point of view of an artist-researcher it is a practical question of how to organize different materials: computers, sensors, circuit boards or yarns in order to produce meaningful encounters at my installations, which often respond in various ways to the actions of their audiences. And second, from the point of view of a researcher-artist, it is the question of the conditions of the experiences that are evoked in these encounters.

These two registers of questioning and thinking are deeply entangled as I try to bring together the conversations with material practices and the existing discourses on materiality, while situating my thinking in the very proximity of my artistic work. Thinking with my installations means that I pay careful attention to their materiality: to the labours of producing them and also to the material events by and through which they are experienced. It also means that the concept of the human-machine interface acquires a central place in my work: What kinds of material transformations take place at the interface of a certain installation? The transformations to consider involve both the embodied actions of the participants as well as the technical components that constitute the I/O system of each installation.

I understand these material transformations relationally. In other words, I conceive the encounters at my installations as performative events. This means that instead of asking how a body interacts with a device I try to understand how, through what kinds of technical-material arrangements, it becomes possible to think of the body, an embodied action, event or a process in a particular way.

Figure 1: *Untitled No2* (2014)

Untitled (2014) 1-3 installation constitutes a series of tactile-sonic sculptural objects that respond to a visitor's touch in a gallery space. The series was first exhibited in Sculptor Gallery, Helsinki in 2014. They conceive touch as a composite event resulting from a particular organization of heterogeneous elements: bodies and movement, visual and sonic events, materials and technics.

The series is part of a larger and rather heterogeneous body of work in which I have inquired into the different modalities of technically mediated tactility. I have been interested in the ways in which visual experiences are entwined with tactility: the positionality of the proprioceptive body, its posture and movement as well as the tactility of the skin and its cutaneous sensations.

3. ENACTING TOUCH: THE LABOURS AT THE INTERFACE

In the following I will develop the idea of touch at the human-machine interface as an enactment, a co-performance which involves both interacting bodies and interactive technologies and which, through further analysis, is conceivable as a series of material transformations involving both organic and

nonorganic processes. The idea of touch as an amalgam of enactments that are always relational and particular is informed by recent work in science studies and the question of agency in different processes of materialization.

In science studies the question of agency in human-nonhuman relations has been extensively studied in ways that foreground the performativity of those relations in “actor networks” (Haraway, 1991, 1997; Latour, 1999, 2001, 2005; Law, 1992, 1999, 2004; Law & Mol, 2002), as the “mangle of practice” (Pickering, 1995). The concept of the network must be understood relationally, emerging in the course of being traced, and not as something that connects already existing entities (Latour, 2005; Law, 2004). Similarly to Haraway Lucy Suchman conceives agency as “material-semiotic attribute” (Haraway, 1991, 1997; Suchman, 2007, 267) that is not locatable in individual humans or nonhumans. Consistently with the approaches outlined above, agency, for Suchman, is the effect or outcome of human-nonhuman relations, which is distributed within the extending agential networks as the capacity to act. Agencies within the networks are always particular, depending on the nature of the relations in which they emerge.

Suchman emphasizes the importance of shifting the reference from the autonomous human individual to the labours by and through which agencies emerge within the networks. From a posthuman perspective she questions: How boundaries are enacted in practices? (Suchman, 2007, 242) In her words, we should conceive of the interface “not as a priori or self-evident boundary between bodies and machines but as a relation enacted in particular settings and one moreover, that shifts in time”. (Suchman, 2007, 263)

In my discussion of the Untitled No2 I will follow Suchman’s argument and suggest that the sense of liveliness, experienced at the interface of the Untitled installation must be understood performatively, as a kind of body-sensor co-performance. A sensor in this context refers in most general way to different setups of technical components capable of feedback. Moreover, following her remark on the importance of paying attention to the labours of production (Suchman, 2007, 243) I have previously inquired into the conditions of these co-performances, approaching the entities interacting as the effects of those specific relations which are part of the conceptual-material arrangement of each installation. (Tikka, 2018)

In Suchman’s reading of Karen Barad’s work, Barad’s concept of the “phenomenon” resonates strongly with Haraway’s concept of the “material-semiotic” (Suchman, 2007, 267), the idea that phenomena emerge in dense and heterogenous networks that are both material and semiotic, including concepts. (Haraway, 1997, 16) Here I will

follow this idea and will question if the key concepts informing both the design and my discussion of the installation No2: “touch” and “breathing” could be addresses as semiotic-material attributes (Haraway) and as phenomena, enacted intra-actively within particular conceptual-material apparatuses (Barad). This would mean understanding them relationally, entwined with those technical-material arrangements that constitute the interface of the Untitled No2.

Barad’s major project involves a posthumanist rereading of the physicist Niels Bohr’s epistemo-ontological work. In her agential realism the primary ontological entity is not an independent object with determinable boundaries and properties, but phenomena. In order to foreground the performativity of interactions which generate observable phenomena, she makes a conceptual distinction between interaction and intra-action. An intra-action is a performative, emergent event. In intra-actions the entities interacting are conceivable as the effects of their relations. Barad thus suggests with the notion of intra-action that entangled agencies are mutually constituted in intra-active events. Distinct agencies emerge through their intra-actions. However, as she reminds us, these agencies are distinct only relationally: “agencies are only distinct in relation to their mutual entanglement; they don’t exist as individual elements” (Barad, 2007, 33)

Even though Barad draws markedly on the history of quantum physics in her elaboration of agential realism, it would be a mistake to think that only quantum phenomena can be addressed within this conceptual frame. As she states in her article “Posthuman Performativity”, “agential realism offers an understanding of the nature of material discursive practices, such as those very practices through which different distinctions get drawn, including those between the “social and the “scientific”.” (Barad, 2003, 816) In the same article she proposes that agential realism provides the basis for her posthumanist and materialist elaboration of performativity. (Barad, 2003, 810-811) The theory of performativity is the account for the production of the materiality of the bodies – not only the human, but also the nonhuman bodies including technical systems. Posthumanism according to Barad “calls into question the givenness of the differential categories of “human” and “nonhuman”, examining the practices through which these different boundaries are stabilized and destabilized.” (Barad, 2003, 808) It is this conceptual frame of posthuman performativity, which I believe, deviates my approach from some of the earlier work addressing air and breathing in the context of sound studies and design.

In his article “Against Soundscape” anthropologist Tim Ingold argues against patterns of thought that

objectify our sensory experiences. In this phenomenological approach to experience “Sound and light... are infusions of the medium in which we find our being and through which we move.” (Ingold, 2007, 12). Ingold foregrounds breathing as the figure of being immersed in the medium of air: “Inhalation is wind becoming breath, exhalation is breath becoming wind.” (Ingold, 2007, 12) For Ingold then, air should be understood as atmosphere that provides a ground for the perceiving subject and for the sensory experiences for touching, seeing and hearing.

Similarly, designer-researcher Malte Wagenfeld approaches air as atmosphere. For him the sensorial perception of air is a dynamical physiological experience in which the body is the primary perceptual instrument. Wagenfeld too draws on phenomenology framing for his research-practice the primacy of the body in perception, and the body as enmeshed in the world, coinciding with the sensed. (Wagenfeld, 2013, 19) In his research, he observes the movement of air, and how in the different phenomena of turbulence breath too is involved. (Wagenfeld, 2013, 93) For him breath entwines with the other atmospheric qualities of air.

While I see my work resonating with these two in some respects, the conceptual frame of posthuman performativity in which I develop my account of the Untitled 2 suggests the shifting of the focus from the human body to the discursive practices in and through which what counts as “human” is both “stabilized and destabilized”.

4. UNTITLED NO2 AS THE COMPOSITE OF AGENTIAL CUTS

Figure 2: Untitled No2 in progress

The Untitled No 2 in its interactions with the human participant is made to perform a sort of ‘breathing’, an amalgam of gestures that involve air moving in and out of human and mechanical “organs”. As one strokes, tugs or hugs it, it responds by letting out humanlike breathing sounds. If one continues to

touch it, the sounds become more intense as if that someone was trying to gasp air. Simultaneously, the protruding forms on both sides of the installation begin to fill with air pushed in by blowers attached to them. The shapes appear moving in the rhythm of blowing which interrupts and starts again in sync with the breathing sound.

The Untitled No 2 can be stroked, felt, watched and listened. These actions involve diverse material contacts with the installation. The design of the installation was informed by a series of notions such as ‘breathing’ and ‘touch’ that served as conceptual tools for organizing these material contacts. It can then be said to enact a series of particular kinds of ‘breathings’ and ‘touches’. They can be approached as phenomena that are performed by and within specific material-semiotic apparatuses that circumscribes interactions and material transformations in a certain way.

In Barad’s agential realist account a scientific phenomenon is enacted in measurement, which always involves a measuring apparatus. The boundary between what is measurable by a particular apparatus and what is not, produces a cut, which is embodied in the apparatus. A measuring apparatus can therefore always be seen as part of a phenomenon. “The phenomena are the ontological inseparability of agentially intra-acting components.” (Barad, 2007, 33) Apparatuses are material arrangements, that have agency. They acquire their meaning through particular concepts that give their definition to the configuration of the apparatus. Therefore, apparatuses play a performative role.

Could it be possible to think of new modalities for human-machine interaction in terms of “agential cuts”? As long as Untitled No2 is addressed within the conceptual frame of posthuman performativity and agential realism, the ‘touches’ and the ‘breathings’ associated with it should not be conceptualized as experiences grounded in human embodiment, but rather as ‘phenomena’ enacted through diverse conceptual-material arrangements including the actions of human participants. The different events at the interface can then be understood as series of partially embodied enactments, co-performed by and through specific apparatuses: sensors or material relations, which also fold in human actions. In the following I will outline these enactments as a series of agential cuts. But I will also have to question how these enactments are brought together in the work of an artist so that something meaningful might come out of them.

4.1 The materially specific enactments of the Untitled No2

In the Untitled No 2 there are at least four materially specific enactments to consider. First, there is the tactile experience of touching the woollen, knitted

surface, which may give rise to the cutaneous pleasures of touching, the olfactory experiences of inhaling the smell of wool, and a whole series of associations linked to stroking the fur of an animal or pulling on itchy mittens in a cold winter day.

Figure 3: *Untitled No2, capacitive sensing*

Second, in the circuit architecture of the Untitled, 'touch' is conceptualized in terms of capacitive sensing. The woollen surface is embedded with barely visible conductive yarn, which functions as a sensor. When a human participant brings her hand near conductive surface, her body intervenes in the electric field. The living body in this situation functions as a conductor performing electrically with the circuit. From the point of view of the circuit, the body functions as a reserve of water, having certain conductive characteristics in proportion to air. Within this agential cut, touch is enacted as an electric and measurable phenomenon which can trigger sonic and tactile output.

The third and the fourth enactments are related to the concept of 'breathing' and consist of two overlapping sonic events. It is their relation most particularly that constitutes the dramaturgical counterpoint of the Untitled No 2. The capacitive sensor triggers the playback of a human breathing sound, first as an individual inhale-exhale event and then as repetitious rhythmic breathing. In addition, and in synchronicity with the third agential cut, the playback of the breathing sound, the sensor also triggers on the blowers on the sides of the dress. The on-off actions of the blower produce a vibrating pattern that is visually and haptically perceptible when the shapes in the front of the dress start moving.

The scripting of the events makes the two sounds: the sound of breathing and the sound of the blower coincide. But it also produces an associative connection between a series of material transformations that involve the movement of air. How then, should one understand 'air' in the particular conceptual-material arrangement of the Untitled No2 and in conversation with Barad's

posthumanist account of performativity and her agential realism? For Untitled No2 a certain flux becomes an agency in those intra-actions which constitute the dynamics of various movements and resistances within the overall design of the No2 and in relation to which they are conceptualized as the movement of air. Through intra-activity this flux turns into a transformative capacity for producing changes in the material configuration of the No2. These material changes are available for a variety of registers including the human sensory apparatus.

Thus, for instance, the balloon-like elements in the front of the dress constitute a shape changing apparatus, which has the capacity to resist but also to give in to the push, the capacity to move and to change the shape of the balloons by filling them in. These agencies, the balloons and the movement of air, are relational in the sense that their capacity to act, to produce a change within the design of the No2 only comes through this relation. Similarly, the intra-actions that involve different material resistances related to the mechanical movement of the blower-blades and the air-as-pressure generate movement that in its intra-actions with the human sensory apparatus can be perceived as a tactile and sonic push.

The event of push or air-in-movement from the diaphragms of the loudspeakers and the other from the blowers pushing air into the bellowing shapes of the dress mix into one sonic event as the convergent vibrations hit one's ear drums. In the amalgam of tactile events of the Untitled 2, these convergent vibrations could be seen almost as yet another technical-material configuration of touch.

4.2 Performing liveliness

On the other hand, if there is any "life" breathed into the Untitled No 2, we may ask, how to conceive of this enactive destabilization of the boundary between the animate and the inanimate. I have focused here on the material transformations in which air as agency manifested in its various dynamics of movements and resistances and as differently configured series of pushes gather under the 'figuration' or a 'semiotic-material attribute' of 'breathing'. Therefore, the question of liveliness - even when that liveliness is experienced only as a partial condition - appears to me as the question of how these different material transformations resonate and amplify one another.

I have proposed conceiving the performance of liveliness as a human-machine co-performance. In order to do so, the performing human body should be conceptualized as a series of agencies arising in various intra-active movements. As a related movement we could look into the role of tactile motility. The hand stroking and tugging the folded shapes, does not only experience the softness of wool or trigger capacitive sensing, it also discovers

its own pleasure in the prolonged motility of stroking and tugging, the pleasure of self-movement. The ongoing motility of the body must be seen as yet another dimension of movement that resonates and folds into the amalgam of movements across the different material intra-actions of the installation.

5. CONCLUSIONS

It would be far too easy to conceptualize *Untitled No2* as an interactive sound installation, a tactile-sonic feedback loop in which touching the material object generates a sonic response. Instead, I have suggested that we should look closer into the materiality of the installation in order to discover the entanglements of subtle material intra-actions at play. To do so I have followed the argument by Lucy Suchman and inquired into *Untitled No2* as the site of heterogenous labours, a series of material-semiotic enactments and emergent agencies choreographed around the notions of 'touch' and 'breathing'. I have suggested that these enactments could be conceived and elaborated as "agential cuts" in conversation with Karen Barad's agential realism.

In order to thematize the material association between sonic and tactile events in *Untitled No2* I have paid closer attention to the intra-actions which can be gathered around different kinds of conceptual-material arrangements of 'breathing'. I have then explored the ways in which the agency of air can be conceived in these intra-actions. Finally I have suggested that if *Untitled No2* destabilizes the boundary between the animate and the inanimate, and stages an interactive encounter with something embodying partial liveliness, this liveliness must be understood relationally, emerging in those intra-actions, or as I have here called them, body-sensor co-performances, by and through which different sensory experiences resonate and fold into each other.

Finally, I want to suggest, that to look closer into the networks of production in which one finds oneself as an artist, might be one of the productive ways in which artist as researcher will enter in conversation with other fields of research.

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