

Interpelled: Psychological Considerations of Directional Sound Technology

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Abstract

Take a moment and think about the undercurrents that may shape your own listening. Language in a sense speaks us; it is a system that shapes our expression. We take in information, interpret it, and express it all through the filter of language. Audio technologies are also a system which shape our expression. Most educated people understand that media shapes our concept of the world, and that the power of the disembodied “voice,” which I’ll be focussing on in the coming pages, is extended and expanded through audio technology. Though we’re not always conscious of it, these two systems both influence and constrain our thoughts and actions.

We’re about to examine how audio awareness reveals choices that we might otherwise miss; particularly how sound and voice conspire to inform our ideas about what is possible. When a sound or message makes its way through and resonates with us, we pause, and a cognitive or emotional shift takes place. These often fleeting and elusive consciousness shifts can take many forms, waking us up to the present moment, and for that instant, communicating something about ourselves to ourselves. I will argue that this is precisely the moment when we are most capable of challenging and expanding our preconceived notions of reality.

Keywords:

Interpelled is an ongoing project that blends research and practice to explore how an innovative use of sound can be a unique tool for creative activist intervention.

Interpellation is the ways in which ideology speaks to the individual. My work with interpellation is the result of being troubled by questions of morality in the face of the climate crisis. This led me to wonder how I might creatively use hyper directional sound to inspire reflection and dialogue around what I considered to be the world's most pressing issue.

During several one-on-one interventions at the annual 2010 UN climate talks I used a HSS (hyper directional sound) speaker to project recordings of children laughing and playing at individual conference attendees. I wanted them to hear the sounds as if they originated from their own bodies, as if the sounds were the voice of his or her conscience speaking.

Fueled by the belief that we are greatly influenced by what we consciously and unconsciously hear my creative goals in this project lie in what happens when the way in which we hear the world shifts and the impact this has on our lives.

Let me explain. These conferences function like an intensified microcosm of the scripted interactions that often take place in many other situations. Through my attendance at such events I have come to understand, that how we hear and remember hearing, affects the way we participate in our environments.

Direct action succeeds when it plays on the unexpected to achieve results. Effective activism today requires innovation, new strategies and tactics, and experimentation. Effective art plays with expectation, interrupts, and challenges the way we think. Art at its best inspires reflection. My experiments at COP16 aimed for all of that by venturing to expand 'reality' through the creative use of sound and gesture.

Through a narrow beam of sound a hypersonic sound speaker emits ultrasonic waves with enough volume that new frequencies are created within an audible range that we can hear through a process known as non-linearity. Simply, a hypersonic speaker allows its user to focus sound waves via a narrow beam of sound on a specific point. The sound projected from this speaker is absorbed by the first surface it comes into contact with.

Working creatively with a technology that most people don't know exists but that plays with people's expectations and perceptual reality is not easy. As a dialogical project where the research informs the practice Interpelled raises phenomenological issues. People do not consent to advertising nor do they to surveillance. Ethics applied to research are quite different from the ethics we apply to surveillance. With sound and interpellation added to the mix, we begin to see the complexities that directional sonic tactics reveal. The research and creative potentials of directional ultrasonic sound politically and ethically are largely uncharted.

Due to recent political events there has been influx of commentary on art's function and relationship to activism. A review of the current literature out there is that this project couldn't be more timely. There appears to be a perspective shift that considers audio research as a valid form of inquiry. While some methodologies may still be in infancy, it is becoming more evident that there is a need for solid experimental sonic research.

Interpelled examines the psychological undercurrents involved in unexpected and con-ceptualized hearing, underscoring how words become voice (even when they are never heard aloud), how sound and voice mediate our spatial relationships, inform our psy-cho-logical associations, and affect the ways in which we navigate our physical and so-cial en-vironments. I believe sound and voice can interrupt, influence, and ultimately in-tervene at key moments in ways other intervention art strategies can't. In the context of COP16, or even during a fairly recent Black Friday intervention, I saw and continue to see this strategy as having potential and the possibility to yield poignant and surprising reflections and re-sponses.

1. Who Should I Say Is Calling?

Voice is a paradox, for it can motivate or paralyze its listener. Captivating speeches, heartfelt stories, and evocative audio work grab our attention and challenge the way we think and feel, moving us to act or stopping us dead in our tracks. Sounds enter our consciousness and provide a structure for interaction. Voices validate and punctuate our existence. Sounds of swarming starlings signal seasonal change in audible black clouds every spring and autumn. Cautionary parental voices are resurrected from memory intervening during moments of indecision or transition. Even our cell phone, whether ringing or not, speaks to us when we are longing to hear from someone. Sometimes these sounds are just a sound. Other times what we physically hear becomes internally significant – sounds become more than a sound, they take root in our minds, and become voice. Depending on our emotional state it could be anything from the cacophony of a busy restaurant, to a misheard phrase, or the sound of a

stranger's strained breathing while you're in a physician's waiting room that could transform sound into voice.

How well can you remember sounds? Take a moment and think about the sounds that registered with you today. Try to remember the last thing you heard before falling asleep and what you heard when you woke up. It's likely harder than you initially think. That's because our daily lives are layered, complex, conglomerates of sound. For most people sounds trigger memories, shift in moods, or a heightened state of awareness. Sound permeates boundaries and inherently invokes doubt because hearing takes more work than other sense modalities. What we hear incorporates both identifiable objects and unseen forces. Sound's seeping qualities make it hard to contain, locate, and identify with certainty. Mindful listening takes practice and the elusive qualities of sound only compound this challenge. As difficult as it may be to remember sounds from today there are, however, instances when we overhear something seemingly insignificant and it makes a lasting impression. The absence of a sound such as the disappearance of traffic from a busy intersection could cause pause and a momentary shift in consciousness. The tone your lover has when they mention someone's name to the emergence of insect sounds may be "insignificant" examples that cause you to re-focus your attention. We are acutely aware that when we listen to something that is outside ourselves, this "other" seemingly speaks to us, and the meanings we attach to what we hear are just for us only. But what is it that suspends preconceptions and causes reflection? What exactly is resonating with the listener? Who is calling and what is being conveyed?

Sound invites us to respond just as questions do. When we hear a voice or a peculiar sound we instinctively respond and our ears zero in. Hearing is unique sense modality because sounds speak directly to our emotions and reflect our personalities – choice exists in listening much more than, for example, smell. We tune in or out to sounds and what we wind up tuning into says something about us personally. This is specifically true if what we hear catches us off guard and exceeds our expectations of the situation or location. Whether we decide to investigate this overheard source says something about ourselves too. If we associate personal experience with what we hear then those unexpected sounds take on figurative existence. Sounds become creative interpreters when we transform sonic material into the personal or socially significant. Interpellation is what happens when individuals identify themselves as the recipients or subjects of a perceived message. Sound and voice combine and take on an internal conceptual existence that then influences our behavior. In many everyday situations sounds become signified and sometimes interpellated. Interpellation signals our attention through voice. When this happens identity suddenly becomes intertwined through what is heard.

In unexpected resonating moments we experience a heightened sense of awareness. Sound and voice collide in a way we can perceive. We identify inflections, interpret hesitations, and sense mood shifts by attributing meaning to the spaces between words as much as the words themselves. Dimension is added to perception when we tune in and listen; understanding deepens and questions arise. We wake up ... if only for a moment.

2. Do You Hear What I Hear?

Hearing is more complex than just the mechanics of our ears. What we hear and how we hear is mediated by culture, ethics, psychological history, and our neurobiological make-up. Quickly, through hearing, we can access what is intriguing, safe, inviting, dangerous, and reasonable. We are hardwired to make split second decisions based on our ability to interpret information acquired through hearing. The success of our species is no doubt partially due to this kind of neurobiological relay.

Let's take a moment and analyze hearing. Physical hearing is the pressure of airwaves on our eardrums, but it is as instinctual as it is corporeal. The ability to detect external sounds involves a bodily interaction with the world that is both conceptual and physical. Conceptual hearing exists internally; it is a private process where imagination, intuition, and intellect dialogue. Unlike physical hearing, ideology and our psychology frame our interpretation of sound – this is what differentiates conceptual hearing. So what we physically hear and what we internally or conceptually hear are not always the same things.

Complex associations develop whenever physical hearing blends with conceptual hearing. Suddenly a voice within the sound calls to us. This phenomenological distinction between the two types of hearing, however, does not diminish the affect of the heard voice on the listener. Auditory perception is further complicated by the fact that we often hear things that we don't see.

Ephemeral and temporal, unless the sound we hear registers as close, we often perceive sound as neither here nor there but everywhere. Perhaps this is why a disembodied voice arouses feelings of wonderment, fear, instability, and inspiration in us. Voice whether spoken or internal has an immediacy that people are just unable to ignore. It is our most accessible

and expressive vehicle. Voice catches our attention in a halting way. The term 'hearing voices' conjures up all sorts of imagery and associations. As an artist this presents both a challenge and an opportunity. As an artistic medium sound's strength is its subjectivity. When the audio source is indeterminate, sound is experienced as a disembodied voice and our subjectivity is intensified.

For a sound work to speak, it literally has to call to and connect to the listener's headspace. Conceptually, this means that the sound used must be situation specific along with being personally and socially significant. Reciprocity is implied when one recognizes they are being called upon.

When using sound as a creative form of activism interpellation also beckons the listener to respond. This response was something I considered when I imagined the Interpelled project functioning as a conscience at COP16. When using sound as a medium, ethical implications are increased especially when dealing with the possibility that someone will hear the sounds as if they were originating from their own body. My sonic intervention had a couple of trajectory points. The first came from a desire to do something with the haunting climate crisis voices in my own mind that whisper to me that time is running out. The second was to create a reflective space through sound for COP16 attendees to reflect on the core issues and what's at stake.

Imagining how a sound might be perceived is not an easy task and this is a challenge sound artists face when making work that is contextual and situation specific rather than work that is primarily spatial or algorithmically motivated. In my experiments and especially at COP16 I hoped to be able to detect when someone heard or felt the beam of sound hit his or her body. The reality wasn't that simple. Listening is highly subjective, often there is little confirmation of what another person hears. Given the nature of directional sound this ambiguity in response was both understandable and surprising. I encountered a handful of conference participants that stopped, most likely because they were startled or because they were trying to locate the audio, they paused in a way that would lead me to consider that were reflecting

In most cases there wasn't a recognizable 'ah-ha moment' with my intended listener. It's fascinating to explore what penetrates sonically and what remains unheard or lost. While working on this project I entered into a deeper dialogue with myself about how I relate the climate crisis with a crisis in morality. I began to wonder how a significant opening of internal space would be received and what would be the collective ripple effect. As this project began to take shape I recalled decade old phrases that didn't seem particularly significant when first heard but now have *become* the voice driving my ongoing research. I've come to

understand more deeply that we hear and remember what we hear because we perceive it as *emotionally* significant. What we hear affects the way we participate in our environments. The voices and experiences we carry guide each step, albeit mysteriously. This led me to wonder what happens when the way in which we hear the world shifts and how this impacts our lives.

3. Are You Talking To Me?

This section will investigate power dynamics of sound and voice, and continue to address the relationship between what is heard and choices we make. We'll look at examples of how audio seized popular attention, influenced masses, and examine agendas that use the manipulative abilities of sound.

Artists, advertisers, educators, and everyday people all have access to audio technologies that have creatively redefined public and private space. Everyday we use a myriad of devices to communicate our thoughts and connect with each other but we also use these same devices to create private pockets of space. Interestingly, the development of many of these technologies was not driven by a desire to communicate humanistically but rather by a desire to control the public and gain military advantage.

The voice conveys far more than just information. Inherent tension exists in the dynamic of who is able to be heard and who is kept in silence. In power struggles it all depends on whom, how, and when silence is used. In this way, silence sometimes says more about a situation than the words that are spoken. What is left in and what is left out of communications are strategic political moves especially when powers that be attempt to control public opinion. The ways in which sound has been conceptualized says many things about the concerns of a culture. Governments often use sound to subdue the public and regulate order while advertisers use sound to influence the market by playing upon perceived desires. Audio has been manipulated not just to pronounce ideas but also to dominate populations. Efforts to enact social control have been aided by the manipulative use of audio technologies.

Sounds in public space are designed to direct attention. In most modern cities there are sounds that prompt us to complete a variety of tasks. We have beeps and buzzes that

indicate when it is 'safe' to cross the street or which elevator has arrived. Alarms and sirens are used to navigate traffic to alert the public to danger and urgent situations. Electronic sounds confirm that an ATM transaction is completed. Many of us are tethered to devices that habitually interrupt focus via messaging sounds.

We are in a feedback relationship with these indicator noises; often becoming impatient or confused when a button doesn't make a sound when we expect it to. Usually this mixture of sounds fades into the background of our more pressing thoughts.

Forces that can shift and capture our acoustic attention are directionality, volume, and frequency. Changes in volume and frequency affect our sense of physical and psycho-logical security. The US Military treads ethically questionable territory especially when it comes to their employment of sonic weaponry. Beyond the more popularly known examples in the media of the US Military blasting popular music at prisoners in Abu Ghraib, today the military conducts extensive research in virtual soundscapes, infrasonic frequencies, and directional sound lasers to gain advantage over the imagined enemy. Sonic weapons are the dark side of what happens when sound and voice forcefully employ agendas of control and anxiety.

Working creatively with a technology that most people don't know exists but that inherently plays with people's expectations and perceptual reality is not easy. Working on this project I began to realize that it brought up skepticism and fear. The mere description of the project seemed to cause a form of conceptual hearing in itself. Fear especially is a hard thing for people to acknowledge let alone talk comfortably about. Often I found when I explained the project it took people some time to imagine positive possibilities of a technology originating from military usage.

4. Can You Repeat That?

Having been to a UN Climate Conference ten years prior, I was aware that delegates, ministers, activists, business leaders, and organizations come to these meetings already knowing what they will or will not say – they have a "script" of some kind. Divisive discussions are common at these events and open meaningful dialogue is not. These conferences in a way

mimic many of the scripted interactions that we can all imagine; talking with sales people, meetings at your job, perhaps even interacting with extended family.

After learning more about Hyper Sonic Sound I wondered if I could break through this scripted blanket and inspire a different type of reaction and reflection. Banner hangs, protests, scripted and shouted chants seemed almost destined to go unnoticed by those who attend these conferences because they fit in the paradigm. Understandably measures activists often take at these events tend to be less about opening up space for innovative solutions and more about dogging, pressuring, and guilting officials in the hope of achieving concrete results.

I knew I needed to be careful and considerate for my work to function as an inner mirror in this context. I certainly did not want my project to be experienced as more rhetoric. I didn't want to project statistics at delegates or make a cute clever rhymes about the planet's destruction. My intention was for conference attendees to pause and deeply listen. To be effective, there were logistical restraints I needed to consider. I thought about how hurried and crazed these ten-day conferences can be. I knew most of the attendees would be sleep deprived and wanted to respect what I imagined to be their semi-frazzled mental states.

Keeping in mind the frequency requirements of the HSS, I limited my audio material to the human voice. During my experiments pre-conference I tested a variety of sounds that could be recognizable to an international population. Uncertain of accessibility, I had no idea how long I would have with my any one person so I thought about sounds that would translate if heard only for a few seconds. Since memes function in a contagious way I thought about using a meme for the audio material and how this might reinforce or negate my intentions with the project. Realistically I knew I had to plan around the possibility of only having about ten-seconds with people. I tried to think of how snip-pets of constrained audio could create space while communicating context. I wanted the idea of the work and the sound to take root both with people who experienced the intervention first hand and those who heard about it second hand or through documentation.

What was good for the project may not have been so good for my mental health. I spent the weeks before the conference obsessively listening to ten years worth of archived climate conference meetings. I then took snippets from past conferences that I found moving and edited those statements and sentiments down to their essence. Compiling the audio files, I created a soundboard I would access from my smart phone. With the help of an inverter and battery rig concealed in a shoulder bag I was able to make the HSS speaker portable and innocuous. If the opportunity presented itself my plan was to speak to the passing of pre-

cious time by haunting COP attendees with their own words and reflections from the past ten years.

Connecting context and intention with sound and phrases appropriate in tone and message was a struggle. I have to admit there were moments during this process when the whole project felt too big and I worried if I would ever find the right sounds to appropriately express my intentions. Beyond words, what sounds would be symbolic and contextually appropriate?

Then, one night it came to me as I was walking downtown. Whizzing past in a car was the sound of children's voices. Hearing their squeals jolted me from my train of thought. It was in that moment, I realized that the voices of playing children translates no matter what your nationality. Under the looming climate crisis, after late night meetings and in between events, the possibility that a conference attendee would hear children laughing and playing with laser focus resonated in more ways than one. At that moment I discovered that this kind of human utterance pierced through the noise and spoke to the heart.

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