

Creating a Conversation

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At the age of 12, I stepped foot inside of a large pipe organ for the first time. Since my mother is a master organist I had the opportunity to experience the full extent of this colossal instrument; it was an experience I can never forget. I remember I was being led around the organ to the side where a narrow door was placed. The organist opened the door and what I saw was phenomenal! There was a narrow wooden hallway and on each of the sides, behind the wooden rails, I saw several groups of lead pipes, each with its own unique length and width. As I walked through the inside of the organ, I could hear the floorboards creak, and the atmosphere felt muffled because of all the components clustered together; there was no room for white noise. The organist left the hallway and prepared the keyboard to play while I stood inside. I could tell that he was pulling specific stops because I could hear very clearly that the pipes were being adjusted according to his sound choices. It was a smooth sound similar to that of felt rubbing against a soft wooden surface. Then, as the organist pressed a key, I heard air pumping, parts moving, and pipes singing somewhere that I could not see. I was unable to know how this machine works simply by looking and hearing, unable to count each pipe and its components, but I was able to hear the grand sound that they produced! The result of each part working together to achieve a greater task was mind blowing. Four years later, after vigorous research on the history, construction, and function of the traditional pipe organ, I built my own smaller sized PVC pipe organ. I found it particularly challenging to fully understand this machine until I had experienced the process of its construction firsthand. The knowledge I gained from this experience shows itself repeatedly in my artwork today. It has developed into an artistic, observational lifestyle; I am always searching to understand how different machines and contraptions function; this allows me to build up my repertoire of knowledge, which provides me with imaginative and varying options when I create functional artwork. Ever since that day, I have always focused extensively on observation of the world and how things work, especially in terms of machines and people.

Living with a hearing disability, as well as being shy, has always been a challenge for me and has affected my ability to communicate with others. With a difficulty in initiating conversation, I would instead stand back and observe how people around me acted and communicated with each other in hopes of learning how to converse like them. From this understanding, I began to devise ways that would allow initiating a conversation with my sculptures rather than becoming the conversation starter directly through voice. When I began my BFA studies in Fine Arts, I continued to look for ways to initiate conversations

with those around me, attempting to bring others my way by sparking their interests in my artwork, rather than approaching them with words.

Two years into my BFA I realized that the artwork I create is my voice and thought maybe I could communicate my thoughts through my artwork. Since walking through that pipe organ, I have been intrigued by instruments because they all have their own unique sounds and unique mechanisms for creating those sounds. By extension, the idea that collaboration of performer and instrument allows a composer to send out a message to an audience only heightened my curiosity of purpose and functionality.

In 2014, I had the privilege of working as an assistant for set construction, and as backstage run crew, for the University of Delaware REP Theatre. This was a whole other world of communication. All the different parts and responsibilities behind the scenes that were needed in order to reach the final performance were amazing! It was especially striking having seen it first hand with no actual background in theatre production. It felt as if I were just a single part of a gigantic machine. During my experience, I imaged that ultimately, there were constantly two different shows going on. First is the interworking of the show (backstage) and second, the actual stage performance. I compared this idea with the mechanics of a machine and the purpose or functionality of the machine. I also experienced what happens if as much as one part of the collection doesn't respond to the director: the result (the performance) runs into problems, parts fall apart, and the outcome is changed. The show is improvised until the problem is solved. From here on, I thought of a performance becoming the mechanics of a conversation and began to perceive things differently. I began to treat a conversation like a play between two or more people. If one were to ask a question, the other must respond with an answer then follow by asking another question.

During my MFA studies, my research involved giving my work a personality. In doing so, I had to somehow break the boundaries of a lifelong introvert and allow myself to open up to the world. All I wanted now was for my work to become capable of responding to the audience's question and to be able to keep a conversation between the two. I want my work to have a sense of life and a connection with the audience by means of interaction and communication. Steve Reich is an American composer who creates music composed of shifting layers of brief melodic music riffs that progressively move through harmonic changes, often cycling back to end where they started. Reich's "Piano Phase" is a piece which had a huge impact on my work. This piece was created as both a mind and body

experience for his listeners. It is performed by two pianos playing across from one another. The effect that his listeners experience is the embodiment of the vibrations and frequencies that result from the two pianos playing simultaneously. Although Reich's intention is to call attention to micro levels of musical detail through extreme repetition, in my experience of listening and sharing his music, his composition "Piano Phase" brings his listeners in sync with the music, and finally, to a relaxed state of mind. He achieves this by combining two repetitive patterns, both containing the same five notes. The tone gradually moves and grows apart from resonance to a dissonance, then gradually returning to a resonance ultimately creating several different sounds and harmonies as a result. Reich is able to tap into the listener's consciousness and sub consciousness to alter their perception of sounds. (Service)

Just as my personal experience of how Reich is able to enter my mind with his music, I aim to achieve a similar experience by adding life and personality to my art. For example, I created a piece titled *Touch my Tentacle*. The purpose of this piece was to create the perception of a living thing that one could have complete control over; an idea that initially converted human interaction into a machine that moves similarly to a living creature. This piece works by the association that takes place in our minds. The brain is such an interesting organ in our bodies and by comparing a manmade object with something that looks familiar, our brain will automatically make a connection; replacing the manmade object with our idea of what it is imitating. When one person controls it the others recognize it as a real tentacle. Most people did not want to touch it; they expressed that they thought the structure was gross. *Touch my Tentacle*'s structure is made completely out of wood and all of its components are exposed. Therefore, it does not look like a real tentacle, but its character and life-like motion convinces our minds that it is a real tentacle.



Reuben Margolin, a mathematician and an amazing sculptor, has also been a great inspiration to me. Margolin creates kinetic sculptures that hang in space and display movements similar to those created by nature: ocean waves, water ripples, or caterpillars moving forward. Margolin constructs his sculptures out of found objects, such as wooden chair legs or cardboard tubes, and his forms are geometrically designed. These forms are suspended from thousands of pulleys controlled by hundreds of motors. Margolin states that

his art “inspires a love of math and also of movements that you find in nature” and explains that the process of his mechanics is complex only because he is “trying to make something beautiful.”(Soraya) One thing I have taken away from his work is that the more parts a piece has, the more fluid the motion is, the more life-like it becomes.

The construction of *Touch my Tentacle* is similar to that of Margolin’s kinetic waves in the idea that using wire and pulleys to control several parts of an object can imitate life-like motions. Its form is made up of discs, imitating the shape of a tentacle by gradually reducing in size towards the tip. A rubber tube runs through the center of the wooden discs and wire is strung through four points of each disc’s circumference. The wire leads up to the controller, which consist of two pulleys that are set up to move across two perpendicular axis simultaneously (like a joystick) while all components remain exposed. As the joystick leans the pulleys in one direction or the other, the wire is pulled and the tentacle curls. In contrast to Margolin’s work, the interaction between *Touch my Tentacle* and its audience is crucial. The joystick is the controller that anyone can use to move the tentacle as an extension of their own arm.



Similar to how I built my PVC pipe organ as an imitation, I created a piece that essentially mimicked the motion of a jackhammer. However, this time, I did not research the machine. I had the idea to create a piece based on an object that anyone would recognize. I wanted to take this well-known machine, pull it apart in my mind, and reconstruct something that is many times simpler with slower action. I began with visualizing the motion by moving a dowel rod with my hands. Ultimately, I constructed a device that moves the rod up slowly then drops it back down with great force, ultimately mimicking the motion of the jackhammer. The piece consists of three main parts: two vertical side tracks that set the dowel rod in



a vertical position making it able to move up and down with ease, a hand crank that is attached to an offset cam which raised the dowel rod up then dropped it back down repeatedly with every turn of the crank, and a spring linked from the dowel rod to the frame



of the structure allowing it to spring back down with force. The force, however, is not enough to do any real damage other than make the sound of wood slamming against wood. The finished product is a simplified jackhammer that cannot “jack” anything; hence the title *Doesn't Jack Shit*. This piece was more than just mimicking a motion of equipment that already exists, it was an experiment for my own research of initiator-audience interaction and experience. I received several responses verbally and through their reactions during interaction with the piece. There was a clear difference in those who experienced curiosity, excitement, and they were entertained compared to those who showed annoyance and

discomfort.

For instance, there was a group in the audience in the gallery where *Doesn't Jack Shit* was installed. This group had never seen or experienced the piece beforehand. The audience looked at the piece and commented that it clearly functioned somehow, without actually knowing how. In two different instances, a person (initiator #1 and initiator #2) from the group came forward to the piece. The initiator turned the crank a full turn while the rest of the audience watched. As initiator #1 turned the crank, the wooden hammer slammed downward. Three important elements happened at that moment:

- 1) The initiator and audience were all shocked from the sound since it was their first experience. Both initiator #1 and the audience said they thought the piece had broken, due to the frightening bang heard.
- 2) The initiator showed signs of being displeased while most of the audience had grins on their faces.
- 3) The initiator expressed no further desire to use or touch the piece because the escalating tension and process of the slamming wood was uncomfortable.

In the second instance, initiator #2 turned the crank. The piece did the same exact thing, however the audience's reaction was different this time because they expected what came next. Their reaction contrasted from the former in three major ways:

- 1) The initiator expected the slam, but was still startled. The initiator continued to turn the crank while exploring how the contraption works. Meanwhile, the audience was getting aggravated by the noise.
- 2) The initiator explained that the feeling of the lifting crank and the slamming hammer was become increasingly satisfying.
- 3) The initiator showed great interest and curiosity while experimenting with the piece by increasing the speed at which the crank was rotated and by changing the position in which they stood; the initiator began to mimic the stance of an intense jackhammer worker.

With each additional turn of the crank, the initiators' curiosity grew, which led them to persist with the goal of gaining a better understanding of how the piece functions. Meanwhile, every time the dowel dropped the audience became more and more aggravated. I have been conducting research on my audience's interactions and reactions with my work in order to build a stronger relationship between my pieces and the audience.

Since my work up until now has demonstrated mechanical motion, how can I make a piece that responds to the initiator depending on how they interact with the piece? I created a sculpture as a direct response to the meaning of the word "machine" titled *Section 1.4*. As defined by Google, 'machine' is "an apparatus using or applying mechanical power and having several parts, each with a definite function and together performing a particular task." The purpose of this piece is to demonstrate the cyclical conversation of human to mechanical motion in the form of a performance. The initiator ultimately becomes the performer, and the space and controlled lighting becomes the dramatic stage for the show. The



motion of *Section 1.4* was initially influenced by my examination of the function and mechanisms of an upright pianola. During disassembly of the instrument, I discovered its pneumatic motor and slider valves. Although the purpose of this unit is to convert reduced air pressure into the circular motion of the cams, my discovery of its motion occurred by rotating



the cam rod by hand and watching the offset motion of the valves sliding in a linear push and pull motion. From this discovery, I created a similar offset motion by fabricating a half-helix axle for the center of the piece. The fabrication process of *Section 1.4* is similar to *Doesn't Jack Shit* in that I began the construction from the inside and worked my way out, of course with a

particular thought of motion in mind, I first needed to start by creating the center axle.

The material I use for each piece is dependent on the purpose and function of each part as well as the most efficient way for me to build it. Steel rods are normally used as the axles since weight and the rotation of the crank tends to stress wooden dowel rods and becomes more likely to break.

Every part thereafter is fabricated with plywood: the arms which glide easily along the metal surface of the axle, the ribbed-like body constructed of several semicircle discs, and the frame of the stand that completes the repetitious aesthetic of each part in the composition. As the initiator turns the crank, they are essentially converting their rotational movement into an off-set wing-like motion. However, this extent of interaction was not enough for me. All of these pieces demonstrated the essence of mimicking life through the relation of natural and mechanical movements they produced, but it did not show any sign of a personality; it could not act nor respond to the audience to keep on a conversation on its own.

I've made these devices that are interactive and still struggled to indirectly give permission to the audience to interact with the work. A thought came to me after observing that anyone who didn't already know me or my work never even tried to interact with it unless they were granted permission to do so. The question I asked myself was "why would no one approach the work even though it was obvious to them that the sculpture was in fact supposed to function in some way?" My issue resides in the traditional gallery (white-cube)

setting where the space compares closely to a kind of sacred space; a space where all artwork should be respected. Throughout history, the rules of a traditional gallery space has been programmed into our minds that even our curiosity cannot overcome; all artwork that is displayed in a gallery should never be touched, let alone interacted with. From this realization, I had a theory: if I could somehow transform the atmosphere of the space to essentially become no different than a hallway or the outdoors, the audience could act as if unrestricted by the rules and I could reverse the white-cube setting. I needed to come up with my own rules that overcome the rules of the given space, make this formal space my stage, and create a simulation of how I expect my artwork to respond towards the audience.

Unknown

I had the idea of creating a prosthetic as a wearable sculpture that related to language and communication. I had an old accordion that has been sitting around for quite some time. The first question that came to me when playing around with it was “how does this instrument work?” How does it use the push and pull force of air to make its sounds and how can I use this in a sculpture? After deconstructing the instrument I observed that inside was a chamber for air to travel and various sets of reeds that vibrate in the traveling air ultimately producing the sound. I wanted to use the sound but I didn’t want to destroy the mechanics of the instrument. I started my research on the subject and devised how I could generate my own source of air. After studying how bellows and other woodwind instruments worked, I had realized that our lungs work in a very similar way as we inhale and exhale. That day I walked through the pipe organ in my distant the past, even throughout my studies in graduate school, has continued to be a great influence on my work.

On my work desk, I passed my eyes over a half-face shop respirator. It had occurred to me that this object also involves pushing and pulling air - just like the bellows. Thereafter, my plans for creating masks that generate the sounds of an accordion began. I experimented with several ways to attach the accordion reeds to the respirator masks for my next project, titled *Unknown*. Through vigorous trial and error, I came up with the final mask. It wasn’t about just blowing at the reed. I needed to mimic the full mechanics of how an accordion actually works, including the source of air, controlling the direction of airflow, and creating a reservoir to distribute air equally among each reed as needed. Just as I had reconstructed a pipe organ that day, for this piece in particular, I recreated implements of the instrument by first creating the human bellows.



Based on my idea of giving my artwork a personality, I decided to have several volunteers wearing them and controlling the function of the masks. The intensity of the sound they produce is entirely dependent on how they breathe. I thought back to *Touch my Tentacle*; as one controls the joystick, they essentially become part of the piece. As I had mentioned, it acts as if it were an extension of one's arm. If a living person wears the art, the art would become a part of the person. If a person is controlling the art, would not the art essentially show the presence of a life if it is breathing? Since I have struggled with audience-to-art interaction in my past work, I wanted to see what happened if instead I reversed the situation and created an art-to-audience interaction. To do this, I turned the piece into a live performance.

I created an unknown species that acts differently than humans do. However, they are still able to communicate through similar expressions and gestures as we do. I recruited four volunteers who I knew could perform the way I had imagined these creatures to act. During preparation of the performance, I gave my performers specific information including the concept of the performance and details about their characters; “You are not human, you are an unknown creature. You are to act as if you were a pack of curious animals. Everything

that might happen between you and the audience is up to you, you make your own decisions. Just as you are a species unknown to the human race, the human race should also appear unknown to you. You don't know anything about them and visa-versa. Your primary objective is to observe and interact with them and in turn the audience will do the same towards you. Both you and the audience are pulled out from this reality are given the opportunity to interact with



each other. However, you will be the ones to initiate the interaction and they (the audience) will respond through their reactions. Figure out what they are, how they work (especially their faces, voices, mouths, ears, and nose) as well as why they take on your form. For example, if the audience reactions are unsettling, then you might back away because you are scared or observe closer to their facial expressions because you are curious because you don't recognize those features. If their reaction involves getting closer to you to see how you work, then let them, move slowly around them, and observe them closer as well. The sounds and gestures you produce portray your personalities, attitudes, and expressions. Your masks are slightly ominous, but that is only because humans do not recognize what you are. It is up to you how you want to be portrayed, whether it's anger, beauty, elegance, fear, etc. There will be one leader of the pack. This leader will have a specific color on their mask. Wherever the leader goes, you will follow and stay in the general vicinity of them. This happens for one reason: it relates to how humans and animals act when approaching an unknown species. It's a cautious move because we like to stay safe.

Looking back on my creation process for *Touch my Tentacle*, I had some important decisions to make for the piece. How do I want the appearance of a living thing to be shown within its movements? There was an instance where I was thinking about making it move on its own with the use of motors, sensors, and programming. However, my decision to do so



posed another question; am I trying to create a life that responds to the audience exactly as I want it to or do I want to create the sense of life in my art that has the ability to respond as if it has a life of its own and without the restriction of following a code?

This is the difference between creating life that is programmed and life that has its own personality. Take Theo Jansen for example. He aims to create living creatures that roam the beach and make decisions on their own. However, these creatures are programmed through pneumatics to do just that. Every decision that ‘they’ make is programmed to do so. If they reach water, tubes create suction and engages the creature to switch direction; if bottles detect rapid air pressure changes, then it engages the anchoring mechanism to prevent them from flying away. That being said, there will always be a limited set of commands that the creatures are given, and they will only ever be able to follow those commands. (Sandhana)

For *Unknown*, this instance differs greatly. There is little amount of instruction that I give the performers: they act on their own. As these creatures approach the audience, they create their own interactions and reactions towards them. There are countless amount of directions they decided on their own to take. For example, they reached into the audience and touched their phones, untied their shoelaces, touched their faces, etc. In another instance, they would step back, change the tone of expression or communicating with each other etc. This is what gives a work a living personality.

In order to create the sense of something that appears unknown to anyone, I have to first modify the important qualities that make us human: our communication, structure of our heads, and our clothing. All humans have similar faces, yet we are still able to tell each other apart because we know each other as the same species. The costuming of *Unknown* takes accounts for that. Their faces are covered, the masks transform their voices, and their clothing suggests that they are not from a familiar culture. However, I did not want to eliminate the whole aspect of the human form. I wanted the audience to still have curiosity in their minds; the creatures maintaining a human form allows the audience to make an initial connection to the art, recognizing the familiarity, and draw out their curiosity.

Masking identity can make anyone curious “I need to know who is behind that mask;” this is what we think so that we can feel comfortable around hidden faces. These creatures appear creepy and somewhat ominous to begin with, but the way that they move fluidly and the sounds that they produce are somewhat graceful. As the performers approach a person in the audience, they are moving forward without knowing how the person will react. Regardless of how the person reacts, the performer will continue to act curious towards them. Some people have shown fear and discomfort during their initial interaction with these creatures. As a response, the performers will either continue to engage the person or they will back away from the scared person in front of them. If the interaction and communication between the two continues, it will become more likely of them to become less afraid of one another and therefore becoming to feel more comfortable and safe.



During the performance, there were three photographers present. As the photographer, I had given them two main objectives: First, to act as if they are field photographers. They are just as interested in these creatures as the audiences and the creature will act towards them no differently. Second, to take professional documentation of the pieces and the performance. This involves shooting close-ups, details, angles, photographer’s choice, etc. The purpose of this footage was to have a video displayed after the performance and to mimic the eyes of how the audience viewed the piece.

The audience was ecstatic experiencing the performance in person! At the first instance when the performers walked into the gallery space, the majority of the audience took out their cameras instantly for photos and video. As the performers continued to maneuver around the space many different reactions were shown; most were intrigued and entertained, some showed discomfort and an unwillingness to approach the creatures, and a few approached the creatures and showed a moment of creating conversation between two species. Until the very end of the performance, I sparked the audience's interests in my work, ultimately bringing their urge to speak with me personally



about their experience; “I felt very vulnerable because these creatures could see me but they were covered. I felt like I was naked compared to them. I didn’t know how to respond because I didn’t understand them.” “I was curious as to why they were looking at me so closely and touching me. It made me nervous and uncomfortable, because I didn’t know what I was supposed to do. But the way they looked was so alien to me that I couldn’t stop myself from looking back at them.” “It felt like a magical moment where at first I didn’t know what to expect. But, as we got closer to each other, I began to realize that longer we were here, the more we were getting to know one another.” “The way they looked was so ominous, but at the same time, the way they moved was so gentle and the sounds that they made were so interesting that I couldn’t just leave. I followed them for a while to see what they would do next.”

I have come a long way from experiencing the inside of a pipe organ, to creating a human instrument. Because of my hearing disability and urge to learn what it takes for me to understand how the instrument works, I feel I am getting ever closer to understanding my own way of communicating. Through the creation of *Touch my Tentacle*, *Doesn’t Jack Shit*, and *Section 1.4*, I have learned that because of the formalities of a gallery, I cannot directly instill the idea of being able to interact with a piece in the audience without granting them the

permission to do so. My next challenge was in finding a way to grant the audience permission to engage the art other than giving them verbal permission. To accomplish this, I brought my work outside of the white-cube setting and my art literally took the first step in the audience-art conversation. At the end of my studies, I created *Unknown*, and successfully brought the people to my work, ultimately creating a conversation between them and me. Hereafter, I will continue to study more ways that I can instill interaction between art and the audience. I feel that I have much to learn in order to build an even greater experience between the two.

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Watch *Unknown* performance: <https://www.youtube.com/watch?v=154V9EzXNv8>