



Wait, What Did You Say?

A thesis presented to the Penny W.
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INTRODUCTION

“Wait, wait did you say?” Someone asks me as I repeat myself for the third time. Having a little voice is hard, especially when you are friends with loud people. As a self-described quiet talker with a lot to say, striking conversation—even with those that I am closest with—can be a struggle.

In this era of digital communication, where technology is constantly evolving and testing limits, we increasingly find ourselves in near-constant communication with others, often communicating through new and evolving mediums. While a large portion of these interactions take place over screens, communication and conversation rely on more than the mere exchange of words and text. Spoken and written words are just one form of language. Body movement, tone, physical proximity, are all examples of ways we communicate with one another that relies on more than constructed syllables that convey meaning.

Wait, What Did You Say? is a series of speculative devices that investigate how power dynamics manifest in face-to-face communication. This research examines how our linguistic styles affect our

perception to others and ourselves, and experiments with atypical ways to combat unjust power imbalances. Interested in how we often communicate with one another through mediatory objects¹, I explore what communication devices have existed and what could, drawing upon aesthetics of vintage technologies, retro media, and whimsical futurism to create objects that counteract power dynamics in conversation, and empower users to be more confident in their own communicative styles.

CONTEXTUAL DISCUSSION

Power and Confidence

The acclaimed Linguistics professor Deborah Tannen states that, “using language is learned social behavior: How we talk and listen are deeply influenced by cultural experience.”² Specifically investigating power dynamics based on gender in the workplace, Tannen introduces the concept of linguistic style: a reference to the characteristics of an individual’s speaking pattern. Conversational turn taking, pronoun usage, inquisitive behavior, and apologies are examples of linguistic attributes that differ from person to person based on characteristic like culture, place of origin, gender, and more.

¹Some mediatory “objects” that I’ve observed bring people together in conversation: newspapers, drinks, board games, and social media (despite its setbacks).

²Deborah Tannen, “The Power of Talk: Who Gets Heard and Why,” Harvard Business Review, September 1995, accessed November 20, 2019.

The subtle cues we take away from other people’s linguistic styles mediate our relationships and establish hierarchy when one style enacts dominance over another. In the workplace these differences are prominent between men and women, often transacting significant social and financial consequences. In the opening of her

paper, Tannen begins with an anecdote about a senior manager at a firm, that while assessing individuals for a promotion, claimed that “every woman in his group didn’t have the self-confidence needed to be promoted.”³ While this is how he may have perceived the situation, based on his own understanding on how confidence manifests, the way we portray this feeling varies from person to person. Without that nuanced understanding, women are at a significant disadvantage in the workplace compared to men: “Studies show that women are more likely to downplay their certainty and men are more likely to minimize their doubts.”⁴

Compare that to a study that asks college students to predict their grades for the coming semester; some were asked publicly and others were asked to confide in private. The study “showed that more women than men predicted lower grades for themselves if they made their predictions publicly. If they made their predictions privately, the predictions were the same as those of the men—and the same as their actual grades.”⁵ The womens’ answers point to evidence suggesting that perhaps what may appear to be lack of confidence is actually an effort to not seem boastful.⁶

Linguistic style is one aspect of communication that relays how others regard us, but conversation relies on more than just text and language. In the TedTalk “Your body language may shape who you are,” social psychologist Amy Cuddy explores how body language shapes our perception of the world and of ourselves, as well as how others perceive us. Cuddy argues that science shows our hormones may connect to the way we present ourselves with our body language. Making references to animals and their testosterone levels

³Tannen, “The Power;”

⁴Ibid.

⁵Ibid.

⁶Ibid.

after being pack alpha, Cuddy proposes that those same hormonal reactions can occur in our own body when we pose in certain ways. She introduces the famed concept of standing in the famous Wonder Woman pose, now termed postural feedback effect. Feet spread evenly apart, lined up under square hips, chest boasted out, head tilted up, and fists defiantly planted on the sides of ones body, people practice this pose for two minutes to boost confidence levels before a nerve-racking event.⁷ While this theory has been debated and replicated in a number of studies, one “key finding is simple: adopting expansive postures causes people to feel more powerful.”⁸ Communication is a social science. Understanding how we portray ourselves, the science behind it, and how we have the power to alter our perception are all important for negotiating relationships.

Challenging our relationship to the ways we communicate our emotions in public, artist Kelly Dobson created *ScreamBody*, an interactive object that allows users to scream wherever they want, whenever (Fig. 1). The device users scream into will bottle and store the scream for later, ready to be released when the user is more prepared to release their frustrations. In a video documentation of this piece, Dobson appears at the beginning wearing the device in an empty room. The video cuts to her overwhelmed in a public space. Hunching over she leans into the device. The video jumps to her releasing the scream in a more appropriate setting. While this piece does not directly speak to conversation, Dobson explores how our interactions to the world shape our understanding of it. Screaming is generally thought of as a negative action. It is loud, inherently violent, yet it expresses frustration and anger, emotions universal to everyone. By creating this work, Dobson

⁷ Amy Cuddy, “Your body language may shape who you are” (lecture, TedGlobal, 2012).

⁸ Amy Cuddy, “Inside the debate about power posing: a Q & A with Amy Cuddy,” interview by David Biello, Ideas Ted, last modified February 2017, accessed December 8, 2019.

contemplates the properness of screaming by allowing users to practice it without others noticing and without shame, raising questions about what proper behavior looks like, and the validity of emotions and how they are acted upon.



Right: Fig. 1, Kelly Dobson, *Screambody*, 2007.



Communications Technologies

Right: Fig. 2, Kelly Dobson, *Screambody*, Drawing, 2007.

Dobson's piece was one of the first works that inspired this project. Her diagrams heavily influenced my patent drawings.

As the nature of communication has shifted due to the rise of new technologies, researchers have been studying how communications technologies impact people's lives, well-being, and relationships.

While these technologies facilitate communication and make it more accessible, they also present limitations on the richness quality of communication. In one study done by researchers from the UK and Australia, examined how different communications technologies impact satisfaction levels and quality of communication

between people who have close relationships. The researchers found that there are four aspects of communication that contribute to the richness of the experience: availability of instant feedback, use of multiple cues, use of natural language. As the nature of communication has shifted due to the rise of new technologies, researchers have been studying how communications technologies impact people's lives, well-being, and relationships. While these technologies facilitate communication and make it more accessible, they also present limitations on the richness quality of communication. One study done by researchers from the UK and Australia, examined how different communications technologies impact satisfaction levels and quality of communication between people in relationships. The researchers found that there are four aspects of communication that contribute to the richness of the experience: availability of instant feedback, use of multiple cues, use of natural language to convey broad ideas, and the personal focus of medium.⁹ They found that face-to-face communication is possibly the "richest form of conversation,"¹⁰ allowing for instant feedback and non verbal cues, the study found it had the most positive association with satisfaction. Phone calls and video calls are comparably rich to other forms, like text and instant messaging, whose platforms reduce quality of communication because they primarily rely on written text.¹¹ This research reveals the significance non-verbal cues have on communicating with others. While text-centric and spoken dialogue succeed in disseminating ideas and conveying meaning, they fail to account for the subtle aspects of conversation which can only really be fully understood when communicating face to face with people.

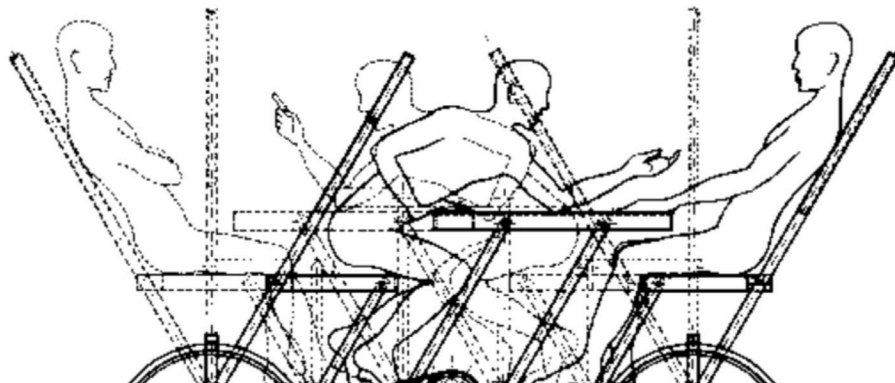
⁹Joy Goodman-Deane et al., "The impact of communication technologies on life and relationship satisfaction," *Computers in Human Behavior*, December 2018, [Page 225], digital file.

¹⁰Ibid.

¹¹Ibid.

Communications technologies have been developed for many reasons, including aiding conversation when users are unable to be physically present with one another, though not many technologies have been developed for face-to-face conversation. In search of creating more equitable and richer conversation between people in person, artist Krzysztof Wodiczko created a sketch for a device called the *Conversation Vehicle*, that physically moves people based on the quality of their discussion (Fig. 3). Illustrated in a similar style to Leonardo DaVinci's anatomical drawings, where figures are outlined in thin lines and layered over one another to imply movement, Wodiczko's sketch is just one page, but conveys the entirety of his idea. The device resembles a booth on wheels. Two users sit on benches on either side of a table that rests in between them. At the bottom of the two benches are large wheels connected to the backsides of the benches. As users sit in the device, they're asked to have a conversation and lean into the table as they speak. Ideally, if the conversation is equally weighted on both sides the device should propel itself forward as the users take turns talking, in turn causing the wheels to move. If one user dominates the conversation, the device (similar to the conversation) doesn't go anywhere because it requires active participation on both sides to advance.

Unlike the *Conversation Vehicle* which serves a utilitarian purpose, homemade inventions called Chindogu are gadgets that are seemingly useful for certain situations found in everyday life, but prove to be somewhat useless in function. Originating from Japan, some of the tenets of Chindogu include the need to be almost useless, the idea that Chindogu inventions represent freedom of thought and action, and the principle that their uselessness must be under-



stood by all. Catalogued in *The Big Bento Box of Unuseless Japanese Inventions* by Kenji Kawakami are about a hundred gadgets that explore fantastical creativity in rudimentary technology.¹² One Chindogu gadget that draws attention to communication is *The Gossip Guard* by an unnamed artist (Fig. 4). According to *The Big Bento Box*, the Gossip Guard, a large pair of fabric lips that users place on their mouths, “helps [users] think before [they] speak.” *The Gossip Guard* forces users to contemplate what they have to say—whether its hurtful or may dispel incorrect information—and wait until they’re ready to open the fabric mouth, by quite literally unzipping their lips, to speak.

Top: Fig. 3, Krzysztof Wodiczko, *Conversation Vehicle*, illustration, digital file.

Bottom: Fig. 4, Unnamed artist, *Gossip Guard*, image.

¹²Kenji Kawakami, *The Big Bento Box of Unuseless Japanese Inventions* (n.p.: W. W. Norton & Company, 2005), [Page 104].



METHODOLOGY

The timeline for creating this work was unconstrained and intuitive, falling into these loosely categorized stages: brainstorming and lateral thinking, visualizations, and prototypes. Each stage of the process required trial and error. As such, the value of this work does not lie within the embodiment of the physical objects made, but rather with the sentiment of the ideas brought forward. Discursive in nature, the primary purpose of the objects is to question assumptions rather than to function.

Brainstorming and Lateral Thinking

This project began with the desire to fulfill a common human need—being heard. I have a quiet voice and often find myself being overlooked in conversations. Whether it's because I'm speaking too softly or others are too loud, the experience of being ignored causes an intense demoralizing feeling. I also frequently find myself turning to external sources of comfort when faced with social anxiety (e.g. scrolling through Instagram feeds rather than confronting a lag in conversation). Inspired by the causes of my anxiety and the tools I use to soothe it, I prompted myself to create a device that confronted my stress about being too quiet and reconciled the problem through its function.

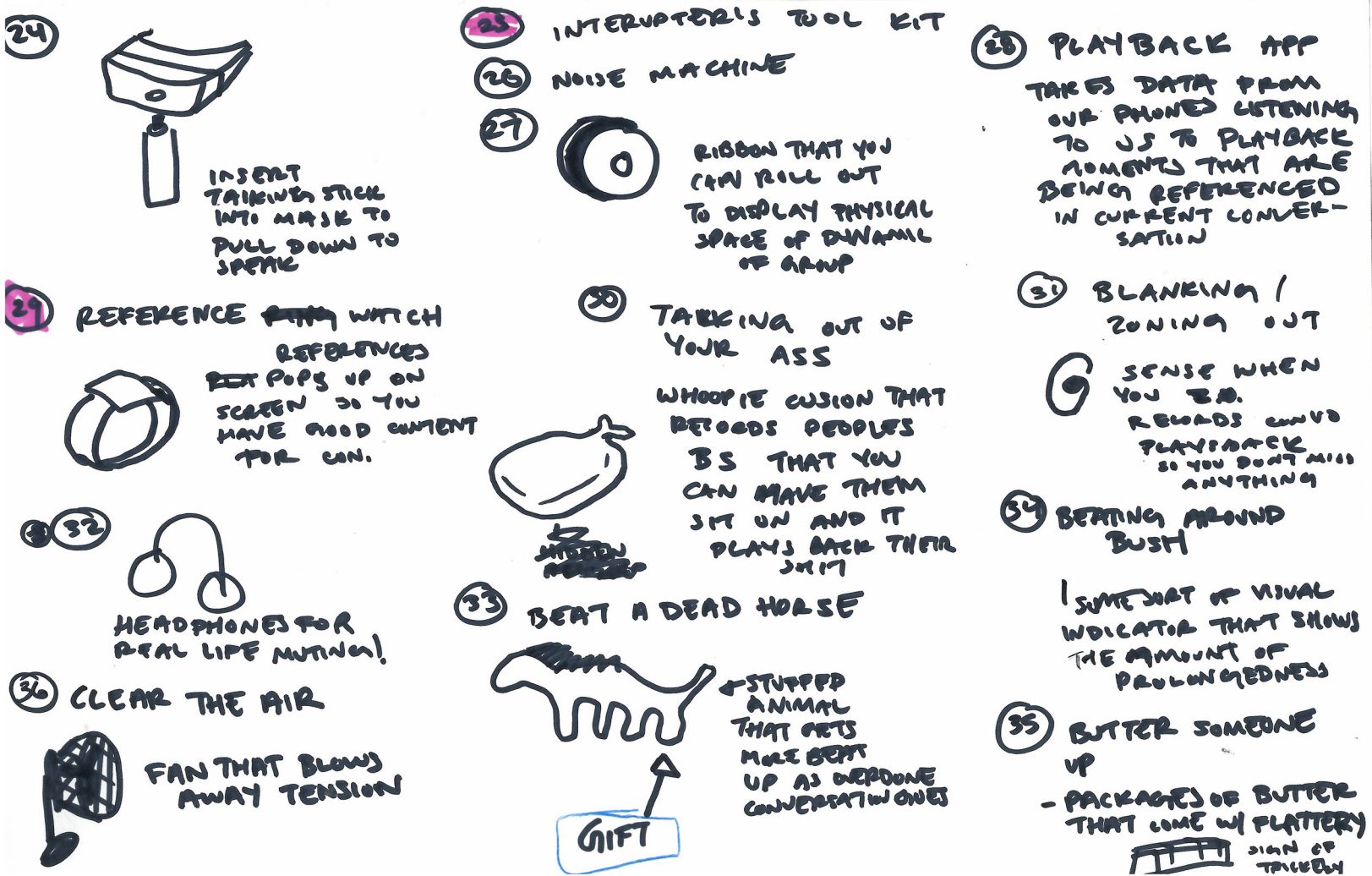
This stage of brainstorming and lateral thinking was foremost a period of reflection and my initial goals became centered around identifying problems I had with communication. This work was uncomfortable and meant I had to address issues that I have been

carefully tucking away in dark corners for a long time. I created lists of problems I had with conversation that ranged from simple logistical issues, such as not sharing a common language with family members, to problems that made me question my character, such as struggling to talk to and maintain relationships with people. While much of my research was directed inwards, I also conducted outside research regarding communication. I looked at research from the fields of psychology, anthropology, and behavioral science, Internet how-to guides, commercial products, speculative designs, artists and movie props. Through this research, I began to see trends in how confidence and power are linked, and how confidence effects conversational behaviors.

Visualizations

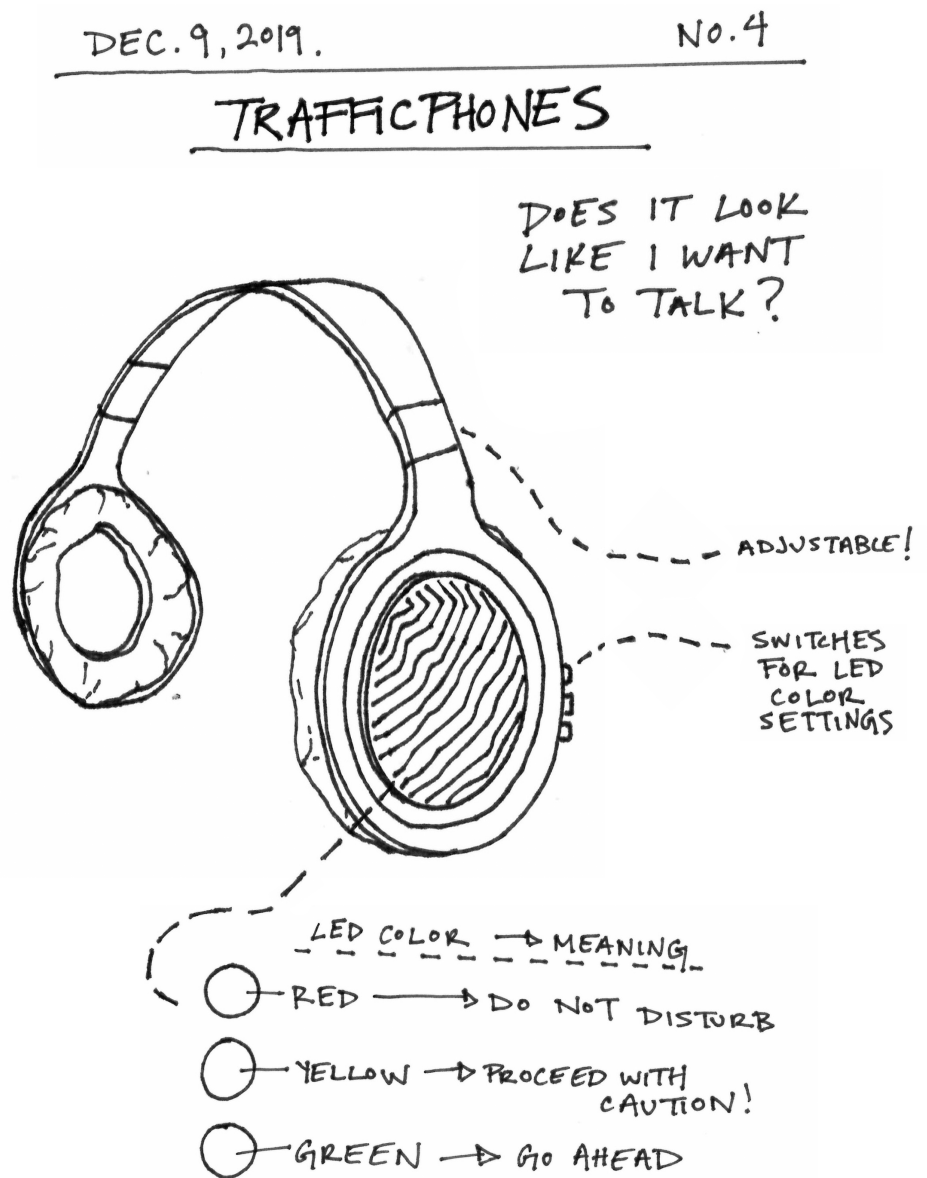
Having a greater understanding of what type of content I wanted to include in the final exhibition of this project, the next step of my methodology was visualizing these abstract scenarios through drawings. At this stage I worked iteratively and began to sketch rough illustrations with accompanying text (Fig. 5) for as many devices as I could think of, often playing off of idioms or common media tropes for inspiration.

In the brainstorming phase I came across old cyanotype patent blueprints of objects that are ubiquitous to us nowadays, like toilet paper. I was engrossed with the stark contrast between the rich Prussian blue background and fine white lines that delineated the forms, and decided to apply that same aesthetic to my project. Having created hundreds of sketches for possible prototypes, I selected



six to expand upon further through patent drawings. I modeled the drawings similarly after original blueprints, incorporating elements like the date, invention number, title, and multiple perspectives of the device. Original patent cyanotype prints focus less on the practicality of making a product, and more on the supposed functions it should carry out. I employed this strategy to my own drawings, deciding to not worry about the logistical issues of engineering (Fig. 6). While I gravitated to the scientific aesthetic of the blueprints they are too crisp and meticulous for me to draw from exclusively.

Top: Fig. 5, Quick brainstorming drawings for possible devices.



Unconsciously and later realized, my drawings are playful and whimsical, reminiscent of retro media made for children (peers drew similarities to Spongebob and went as far to call me Dr. Sues).

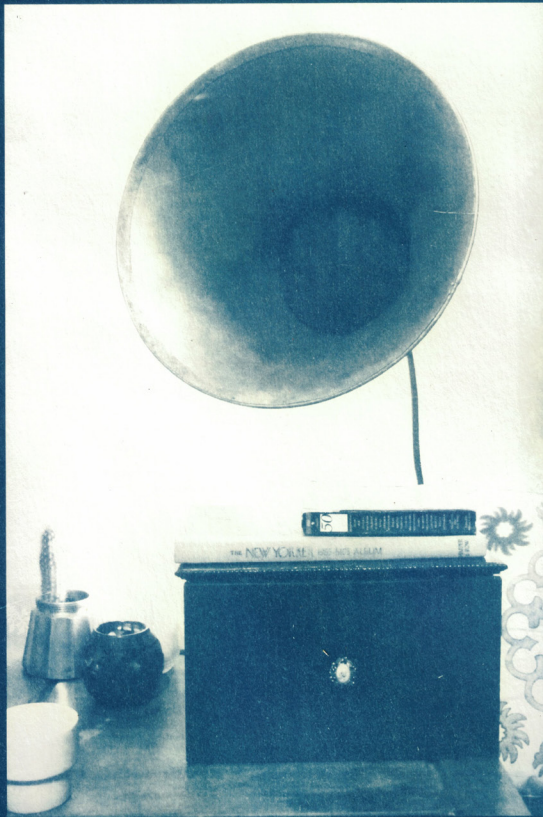
Right: Fig. 6, Patent drawing of Traffic-phones.

In March of 2020, this project met impediments that have paused

the continuation of it. The COVID-19 pandemic hit the state and University of Michigan, and as a result all University buildings were closed, meaning access to studio equipment was halted, and the exhibition for this work was moved online. Had the exhibition gone on as planned, I would have shown the patent drawings in their final form as cyanotype prints. In preparation for the exhibit however, I did learn the cyanotype printing process using it to document my drawings and photographs of prototypes (Fig. 7). Cyanotypes are made with an iron based emulsion and UV light exposure. I experimented with the printmaking process, testing out methods using natural sun, a UV sanitizer (which has also come in handy since the pandemic), and a UV light box, which provided the most consistent results.

Bottom: Fig. 7,
Process photos of cyanotype printing for
Hand Raising Stick.





Prototypes

Although this stage is presented last, prototyping began as early in the process as visualizing. The work created during this period in the project range from low to high fidelity, and this stage was also affected the most by the pandemic. The stages prior to this were more intuitive and comfortable for me to work with, while prototyping posed 3D and sculptural challenges I had not faced before.

Left: Fig. 8, Cyanotype of Sonophone image.

Right: Fig. 9, Cyanotype of Sonophone detail shots.

This stage began with the creation of the Sonophone, a device that equalizes the loudness volume of two people in conversation. Modeled and named after the vintage phonograph, the Sonophone is made of birch plywood, house trim, steel rod, polyurethane stain, epoxy, spray paint, foam, mesh, velvet, and thrifted materials. While initial goals for this piece were to actualize its function by working with a creative programmer, those objectives were pushed back in order to prioritize the creation of other devices.

A large portion of the prototyping process after the Sonophone was thrifting scrap craft materials from local reuse centers and repurposing them to create the devices for the project. The first iteration of the Eye-Contact Goggles were made in this organic process when I found giant hair rollers that I stuck together with tape and safety goggles (Fig. 10). Future prototypes were made with materials like epoxy, Apoxie sculpt, and insulation foam.



Right: Fig. 10, Image of two users wearing the first iteration of the Eye-Contact Goggles.

The Hand Raising Stick is a simple prototype made of a teacher's pointer, a bicycle bell, and a rubber glove. My initial goal with each of these rough early stage prototypes was to make them simple and accessible, my priorities were not to make these as refined or resolved as commercial products. As the prototyping process developed further, it became clear that using thrifted and low-grade materials was not going to work for all of the devices so I started to employ more sophisticated methods of achieving my goals.

Elevate-Ur-Shoes are a set of two adjustable height platform shoes I was prototyping when the pandemic hit (Fig. 11). The process of making these included cutting out layers of insulation foam shaped like shoes that I could shape like shoes. I covered these in fiberglass and liquid resin, a process I learned from my graduate student instructor, which I was then going to coat with an auto body filler, Bondo, then sand that surface smooth and finally paint. However, when the buildings closed and we lost access to facilities this process was stopped.



Right: Fig. 11, Image of Elevate-Ur-Shoes prototype prior to fiberglass coating.

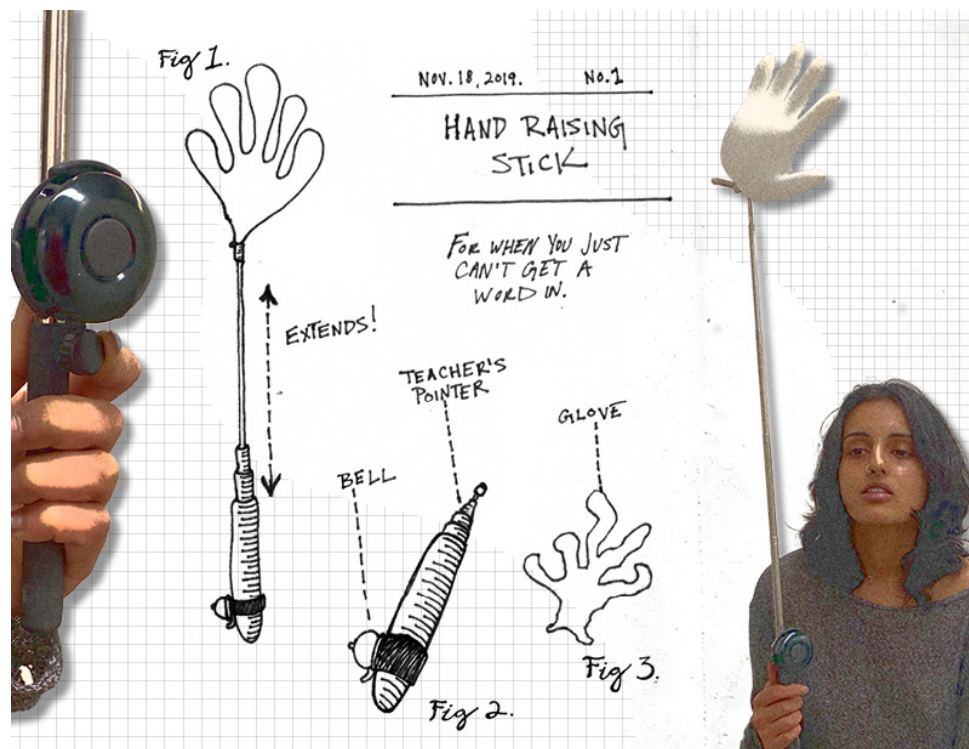
CREATIVE WORKS

Wait, What Did You Say? is presented as a series of images and drawings comprised of discursive devices. There are five devices featured, the first four which investigate power dynamics within conversation, and one made specifically for the pandemic: Hand-Raising Stick, Sonophone, Eye-Contact Goggles, Elevate-Ur-Shoes, and Canoodler. These devices are presented on separate images, each device shown as an illustration and in prototype form. While my initial goals for presenting this work involved an experiential installation made to look like a brick and mortar store, stripping down the work to focus on the concept of the objects allows their simplicity to shine through.

The objects are direct, childlike and uncomplicated. With bulbous, awkward forms that are atypical in everyday life, their presence invites exploration. While these devices began as tools for leveling out power dynamics in conversation and making them more visible, the research and experimentation process has shown that these issues are more complex than who holds the power in an interaction. Conversations are two-way streets and while we should work to dismantle unjust systems of power, it is also within our responsibility to manage our own anxieties, and these devices help you start to do that. They are tools to help users build confidence to take up space and assert more power within their own conversations.

With the onset of COVID-19, face-to-face communication as we know it has become increasingly discouraged, prompting me to apply my previous research to our current situation. This series

concludes with a device that, rather than addressing power, encourages intimacy between people in this time period of social distancing. As we build distance between ourselves, the Canoodler is here to bridge the gaps. The middle of the device is over six feet long and is filled with pillow fluff for comfort and lightness. The 'arms' that wrap the users' shoulders are filled with kidney beans, each weighing approximately the weight of a human arm, 8 pounds. Similar to a weighted blanket, the weight helps relieve users' anxiety. The arms also act as a hidden food pantry. If the need ever arises, simply rip open the stitching and boil the contents.



Bottom: Fig. 12, Documentation of Hand Raising Stick.

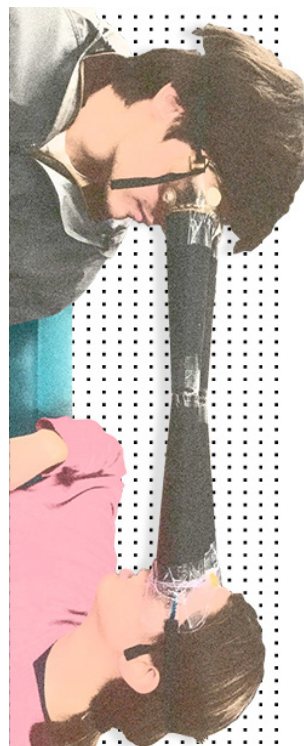


Fig 1.

DEC. 9, 2019 No. 3

EYE CONTACT GOGGLES

Fig 2.

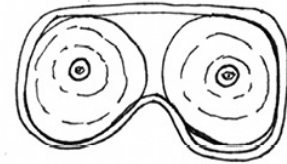
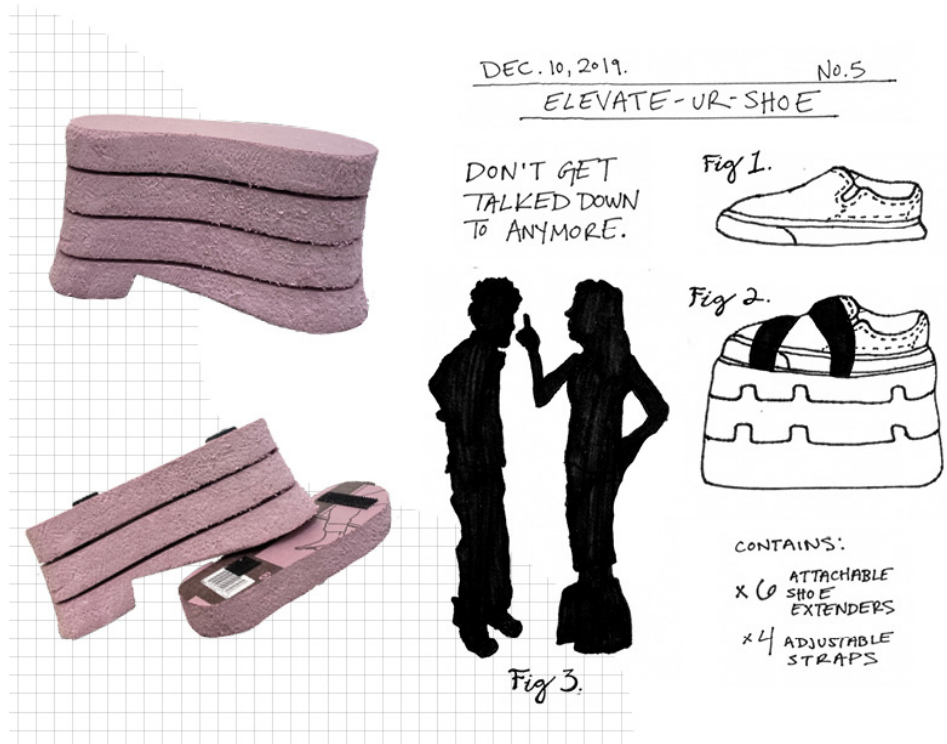


Fig 3.



Top: Fig. 13, Documentation of Sono-phone.

Bottom: Fig. 14, Documentation of Eye Contact Goggles.



Top: Fig. 15, Documentation of Elevate-Ur-Shoes.

Bottom: Fig. 16, Documentation of Canoodler.





CONCLUSION

It never feels right to call a project complete, especially when the process is unexpectedly halted at the very end—so rather than a conclusion, this is pause. By nature of what I am researching, working on this project means taking this work with me everywhere I go. I would like to make a device for keeping arguments on track, and one that stops me from interrupting conversations, and maybe something that would help me not second guess myself, but this is not an episode of *Black Mirror*¹³ and I am not actually a scientist (as much as I like to pretend to be one). But I am human and I do talk to people everyday, and hopefully so do you. Let this be a reminder to assert yourself and listen to others. Talking to other people is an essential life skill and as the world has recently learned, a privilege.

Right: Fig. 17, Detail shot of Canoodler arm.

¹³Though at this current moment in time the world does feel quite similar to a *Black Mirror* episode.

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