

Empathy and Human-Machine Interaction

Thesis

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By

Florence Gouvrit Montaña

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Thesis Committee:
Ken Rinaldo, Advisor
Amy Youngs
Carmel Buckley

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Abstract

This thesis demonstrate my artistic practice and research exploring empathy and human-machine interaction in projects involving robotic art and video installations and performance. The works investigate emotions and embodiment, presence and absence, relationships and loss, and ways to implicate these ideas in encounters between technology-based artwork and the viewer.

This paper presents the framework of my practice, followed by descriptions, statements, and excerpts from my journal describing how, for both of my main projects developed during the past two years in the MFA program at The Ohio State University, I went through several numerous stages in which the projects were designed, tested and were modified as my new designs evolved, failed, and were modified. The purpose of this thesis is to show my process, to establish the continuum and consistency of my research and interests, and to expand on how my work relates to the traditions and discourse of new media art.

Dédié à Papa, Maman et Yves

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I owe my gratitude to all those people who have made this work possible and without whom guidance, support and friendship none of this would have been possible.

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Vita

December 16, 1976 Born in Aubervilliers, France

1997-2002..... BFA, Escuela Nacional de Pintura, Escultura y Grabado, La Esmeralda, Mexico city.

1997-2002..... Insituto de Investigaciones Filosoficas, UNAM, Mexico, city.

2009 to present Graduate Teaching Associate, Department of Art, The Ohio State University.

Awards

2002 Young Creators Grant 2002-2003, FONCA (National Fund for Culture and for the Arts, Fondo Nacional para la Cultura y las Artes), Mexico

2004 Young Creators Grant 2004-2005, FONCA, Mexico

2009 FONCA-CONACYT Scholarship Programme for Studies Abroad 2009-2010, Mexico

Fields of Study

Major Field: Art

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Introduction

My practice is based on observations of the impact of technology and science on our culture and society. I am fascinated by the complexities of the connections between disciplines and how their limits have been fading. As multidisciplinary research is a fundamental part of my process, my pieces always show more than what is first evident to the viewer.

In my previous artwork, I have explored the artificial/natural dialectic based on the different ways philosophers understand it through a 3d modeling environment,. Two of my artworks that investigate this subject are ***silico*** and the ***mapping*** series.

Another example of the way I see the impact of technology and media on the way we perceive and interpret our urban space is my piece ***PTS: Paranoid-Tracking-System***. A display of images modified in real time by GPS data, it confronts us with the fact that in a metropolis such as Mexico City, the concept of safety is not based on the reality but rather on the image created by the media.

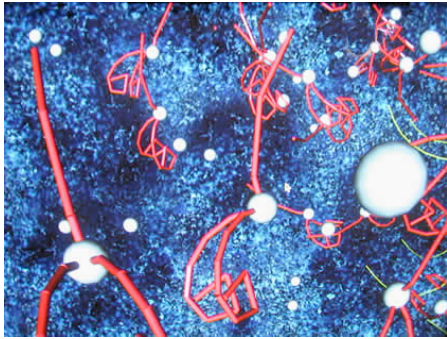


Figure 1. in silico (2003)

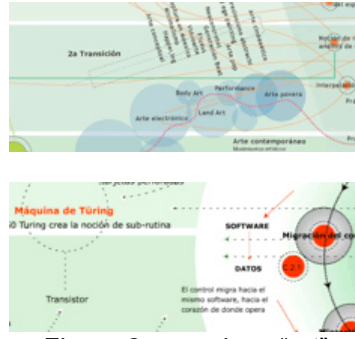


Figure 2. mappings "art"
"technology" (2004)



Figure 3. PTS: Paranoid-Tracking-System (2005)

Some of the theories and philosophers that influenced my work are Donna Haraway, Bruno Latour, and Javier Echeverría. For Donna Haraway, "Natural" and "Artificial" are taxonomies that should be eradicated in order to define new categories based on cyborgs¹ and hybrids². The Actor-Network theory, developed by Science and Technology Studies (STS) scholars such as Bruno Latour and Michel Callon, assumes that objects (artifacts) and concepts are as fundamental as humans. All three are agents that can compose a network. The connections in this network, and the agency of human and non-human elements, have an impact on society and determine our decisions.³ Javier Echeverría divides contemporary human reality into three concentric conceptual environments. "E1" describes nature-body direct relationship. "E2" is based on

¹ Donna Haraway, *Simians, Cyborgs and Women: The Re-invention of Nature* (London: Free Association Books, 1991).

² Donna Haraway, *Modest Witness @ Second Millennium. FemaleMan Meets Oncomouse: Feminism and Technoscience* (New York and London: Routledge, 1997).

³ Bruno Latour, "Technology is society made durable," in J. Law (ed.), *A Sociology of Monsters: Essays on Power, Technology and Domination* (London: Routledge, 1991), 103–131.

city-society communication, and “E3” is the telecommunications network at a global scale.⁴

In my research about the natural/artificial dialectic, I consider the approaches found in the electronic arts more successful than some of those developed in engineering.⁵ Kismet⁶ and The Senster are examples of these different approaches. Kismet is a robotic head developed in the late 1990’s at the Massachusetts Institute of Technology that is intended to simulate human emotions through facial expressions. *The Senster*, often cited as the first computer-controlled work of art, was created by Edward Ihnatowicz and commissioned by Philips for Evoluon, a science and technology exhibit in Eindhoven, Holland, in 1970.

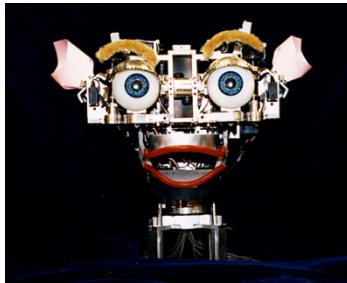


Figure 4. Kismet, MIT

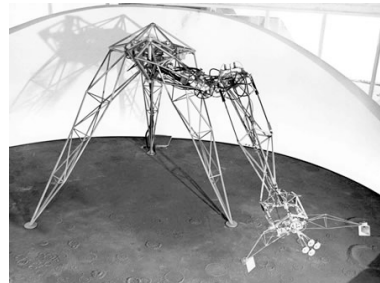


Figure 5. The Senster, Edward Ihnatowicz

I think that there is a crucial difference between recognizing the emotions expressed and simulated in a robot, and recognizing a robot as a living creature, through its expressions and behavior. Kismet shows the expressions of a living

⁴ Javier Echeverría, *Los señores del aire: Telépolis y el tercer entorno* (Barcelona: Destino, 1999).

⁵ Gouvrit, Florence, Quintero, Liliana (2005), *Representaciones de la filosofía de la tecnología en el arte contemporáneo*. II Congreso de Filosofía de la Ciencia y la Tecnología (Tenerife, CANARIAS)

⁶ Retrieved from MIT, kismet project website. URL = <http://www.ai.mit.edu/projects/humanoid-robotics-group/kismet/kismet.html> on May 2011

creature; *The Senster* behaves like one. The contrast between these two approaches is similar to that between the Bottom-Up and Top-Down approaches in Artificial Intelligence. In Bottom-Up design, a robot (or AI system) is programmed to do a final task that is the result of a process completely thought out and determined in advance. Top-Down design establishes conditions and allows the robot to make its own decisions within those conditions. A Bottom-Up robot acts like it thinks; a Top-Down robot tries to think. Kismet acts like it has an emotion, combining positions of eyebrows, ears, eyelids, and lips to replicate a human expression. *The Senster* reacts to environmental conditions. “It would move toward sounds, but would shy away from loud sounds, or if you tried to touch it. It used four microphones and two radar horns to see and hear its surroundings.”⁷ *The Senster* robot shows a behavior but doesn’t give us a full simulated expression. It is the viewer that completes the equation and assigns an emotion.

These questions are present in my older work and in parts of my current work. In my latest work I have extended research about recognition of living creatures to the emotion of empathy and the context of technologically mediated spaces. In my current practice I create installations that integrate the public in strange situations. The viewer sees herself sharing an intimate space with someone who is not present, being a part of an emotional situation without being where that situation is taking place. My latest pieces investigate absence, presence, reality, virtuality, narcissism, relationships, and emotions. I explore how to transmit a

⁷ Retrieved from Evoluon website. URL = <http://www.dse.nl/~evoluon/index-e.html> on May 2011

specific emotion, or a range of emotions, to the public when the body and the narrative are eliminated. For example, when the sound is limited to expressions of emotions without a context and those emotions are mediated by a technological device, or when the interface is an empty room, is there still an empathic situation? Is sound enough to create an atmosphere which generates certain emotions?

In the following pages I will introduce the background and context for the notion of empathy. I will explain how these concepts frame my work, and what I have learned in the process of my practice. Furthermore, I will analyze my two major projects, *Emphatic Robots* and *Resulting from or showing sincere and intense conviction*, to show how my research was conducted and what other discussions are present in my current practice.

Chapter 1: Empathy

The concept of empathy, though present since ancient Greece, has been modified and redefined in the last century. The term “empathy” first appeared in contemporary philosophical discourse in 1909, when the psychologist Edward Titchener introduced it into the English language as the translation of the German term “Einfühlung” (or “feeling into”) – a term that by the end of the 19th century was understood in German philosophical circles as an important category in philosophical aesthetics, as a mean to relate to art and nature, especially in the romantic thinkers.⁸

The term “sympathy” was present before empathy. In the eighteenth century, the British Moralists such as David Hume, Frances Hutcheson, and Adam Smith used “sympathy” to refer to both concepts, empathy and sympathy, without distinction. Currently, each of the terms has a distinct meaning. Building on the sense of “Einfühlung” as “feeling into,” empathy is the way we acquire an emotion from an external subject. Sympathy is an emotion we “feel for” another

⁸ Stueber, Karsten, “Empathy”, *The Stanford Encyclopedia of Philosophy (Fall 2008 Edition)*, Edward N. Zalta (ed.), URL = <<http://plato.stanford.edu/archives/fall2008/entries/empathy/>>.

being or situation, and is sometimes described as similar to pity as discussed by Justin D'Arms in 2000⁹ and Stephen Darwall in 1998.¹⁰

In the nineteenth century, the notion of empathy used under the term sympathy was associated with human sciences as the main way to obtain knowledge of other minds. Because it wasn't considered as having a normative structure (methodology and rules) it was completely ignored by scientific and philosophical discourse. In the twentieth century, psychology addressed empathy as a phenomenon and a process appropriate for study by empirical scientific methodology, which later allowed scholars of social behavior to gain an interest. Subsequently, Robert Visser¹¹ (1847–1933) introduced the term “Einfühlung” in a technical sense, making the concept an object of philosophical analysis. But it was not until 1906 that Theodor Lipps (1851–1914) defended the notion as fundamental for the philosophical and psychological analysis of the aesthetic experiences. “Empathy” went from a minor role in philosophical aesthetics into a central category of the philosophy of the social and human sciences. Empathy was no longer considered a way to appreciate art, but the

⁹ D'Arms Justin (2000) "Empathy and Evaluative Inquiry". Chicago-Kent Law Review: Symposium on Law, Psychology and the Emotions. Vol. 74, no. 4: 1467-1500 (“The ambiguity [between both terms] persists in contemporary use. [...] “Sympathy” [will be used] in a more restrictive sense as the name for the kind of sentiment that respond to perceive harms or threats to another person, and involves some degree of motivation to aid that person. In effect, I am treating sympathy as another name of pity, though the name lacks the connotations of condescension that are frequently associated with “pity”. [...] On my way of using these terms, sympathy is not only not the same thing as empathy, it is not the same kind of thing: sympathy is an emotion, empathy is a way of acquiring an emotion.(supra note 9)”)

¹⁰ Darwall, Stephen *Empathy, Sympathy, Care*, 89 Philosophical Studies 89 (2-3):261–282. (1998) (“Sympathy for a Person and her plight is felt as from the third-person perspective of one-caring, whereas empathy involves something like a sharing of the other’s mental states frequently, as from her standpoint.”) 263.

¹¹ Vischer R., Schmarsow A., Fiedler C., Goller A. and, Wolfflin H. (Ed), *Empathy, Form, and Space: Problems in German Aesthetics*, 1873-1893

primary epistemic means for recognizing each other as “minded creatures.” Although Lipps’ examples of recognition of emotions are those expressed through body gestures or facial expressions, his concept of empathy opened the field for other mental activities.¹²

Lipps conceives of empathy as a psychological phenomenon of resonance.¹³ When we encounter an external object the phenomena triggers a mental process similar to a mirror. We generate a mental experience similar to the one perceived from the object. We are perceptually focused on the external object and then experience it, or project our own experiences as existent in the object. Lipps’ understanding of empathy is still the core of the definition of the term in contemporary philosophy, since it corrected John Stuart Mill’s conception, which implied that “we are able to attribute mental states to other persons based on the observation of their physical behavior and our direct experience of mental states from the first person perspective.”¹⁴ Mill’s approach was widely criticized as logically weak, since he argued as inference from analogy and his premises were not consistent. An inference from analogy presupposes that “a Cartesian conception of the mind according to which access to our own mind is direct and infallible, whereas knowledge of other minds is indirect, inferential, and fallible.”¹⁵ Inference from analogy cannot provide us with the evidence of the

¹² Lipps, Theodor (1907) "Empathy and Aesthetic Pleasure." Translated by K. Aschenbrenner. In *Aesthetic Theories: Studies in the Philosophy of Art*,. 403-412

¹³ *Ibid.*

¹⁴ Stueber, Karsten (2008) , “Reasons, Generalizations, Empathy, and Narratives: The Epistemic Structure of Action Explanation.” *History and Theory* 47: 31-43

¹⁵ *idem*

other person's mind. For Lipps, "analogical reasoning requires the contradictory undertaking of inferring another person's anger and sadness on the basis of my sadness and anger, yet to think of that sadness and anger simultaneously as something "absolutely different" from my anger and sadness. More generally, analogical inference is a contradictory undertaking because it entails entertaining a completely new thought about an I, that however is not me, but something absolutely different."¹⁶.

In contemporary philosophy, we distinguish basic emotions, like fear, rage, happiness, pain, surprise, and shame, associated with biological or social functions. They help us detect, interpret, and evaluate our environment and predispose us to a response. They have both social and cognitive roles. They play an important part in more complex processes such as motivating, evaluating, judging, assigning a value¹⁷ (good/ better/ bad/ worse), and learning. Since emotions allow us to judge, learn, and acquire knowledge, we can say that empathy has an epistemological role. Although it may be arguable whether understanding our environment (including our peers) is actually knowledge, if it is, then by empathizing with someone's feelings we can know how a person feels, which becomes new knowledge that we didn't have before. Thus empathy

¹⁶ Lipps, 1907

¹⁷ Fitting attitude (FA) theories propose to analyze value, or some limited range of values, in terms of evaluative attitudes endorsed as *fitting*—or, alternatively, as appropriate, correct, merited, proper, rational, or warranted. (FA theories come in both cognitivist and noncognitivist versions, and can be given either a realist or a quasi-realist gloss. For discussion of this point, see ("Sensibility Theory and Projectivism." In *The Oxford Handbook of Ethical Theory*, ed. David Copp. Oxford: Oxford University Press.)" in Jacobson, Daniel, "Fitting Attitude Theories of Value", *The Stanford Encyclopedia of Philosophy* (Spring 2011 Edition), Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/spr2011/entries/fitting-attitude-theories/>>.

gives us information not only about the person, but about how the person was affected by something. Therefore, it also gives us new information about that “something,” modifying the way we evaluate it. Therefore, in that sense, empathy is a cognitive tool. We judge as well as and evaluate through others’ responses to objects, situations, and subjects.

If I see another human responding with fear to an object or situation, I am more likely to retreat or be more cautious than I would if I hadn’t witnessed his or hers response. If this human approaches me showing fear, it is likely that I will mimic that behavior, and respond in the same way. Emotions are often displayed in facial expressions.¹⁸

In the eighteenth century, Scottish philosopher Adam Smith developed a theory of sympathy close to what we now call “empathy” that enlarges the range of emotions and comes close to the contemporary notion of empathy. “As we have no immediate experience of what other men feel, we can form no idea of the manner in which they are affected, but by conceiving what we ourselves should feel in the like situation.”¹⁹ In order to understand, our imagination situates us in a position where we feel, desire, or believe. We project ourselves in the situation, we imagine the situation in which we are the actor, and imagine our response. Recent psychology considers this kind of simulation the paradigmatic empathic process.

¹⁸ Ibid 8 pp.1486

¹⁹ Smith, A. (1790) *The Theory of Moral Sentiments*. Library of Economics and Liberty. Pp. I.I.2. Retrieved from URL = <<http://www.econlib.org/library/Smith/smMS.html>> on May 2011

Chapter 2: Empathy and Machines

During the MFA process the framework of my practice has been concentrated on issues of empathy in relation to technological interfaces. I researched and explored the subject in question through two main projects. In both cases I started with a hypothesis of the reaction I wanted to cause in the viewer and, in a period of six months, went through several stages in which the projects failed, evolved, and were modified, in order to obtain the desired effect. Though at times I was disappointed, rather than excited, with the results, the projects show the continuum and consistency of my research and interest.

Artists have tried to show features of living creatures through robots in varied ways. Theo Jansen has been creating kinetic sculptures known under the name *Strandbeests* since 1990. His creatures (machines) look alive as they move on the beaches of Holland. They “feed on wind, and flee the water.”²⁰ The complex and organic movement gives the machines the appearance of creatures not only by their motion but also the way they react to and move away from the water. Jansen’s *Strandbeests* have their own life that no longer belongs solely to their creator. As long as they are self-sustainable, they are the perfect example of a “creature” that becomes independent of its creator. They seem nostalgic and

²⁰ Retrieved from Theo Jansen website. URL = <<http://www.strandbeest.com/>> on May 2011

poetic, like Ihnatowicz's *Senster*. They are not made to be empathic, but they create a situation that causes an emotional reaction in the viewer.



Figure 6. Sniff, Karolina Sobecka

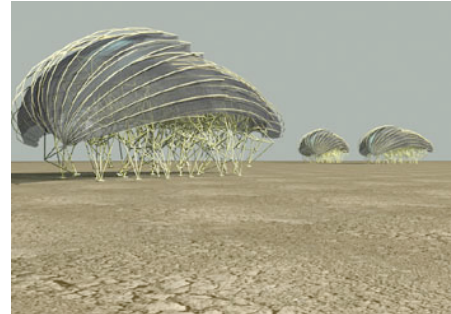


Figure 7. Strandbeests, Theo Jansen

Karolina Sobecka's *Sniff* (2009) is an interactive, public projection. As you walk down the street you are approached by a dog in a storefront window. It follows the passersby and appears to discern their intentions; when they try to engage it, it asks for attention. It is a strange and familiar situation²¹. The dog is programmed to recognize some behaviors and displays a response (like Kismet). The difference is our familiarity with the situation. We interact with the dog, not because we recognize it as a living creature, but because we associate the body language of the artificial dog with the body language of living dogs, we project ourselves into the similar situation we experience with real dogs. The connection we make is not with the dog's facial expressions, since the dog of *Sniff* is composed of simple blue polygons.

²¹ Retrieved from Karolina Sobecka's website URL = <http://www.gravitytrap.com/sniff> on May 2011

In these artists' work, we see how machines modeled on dogs and other familiar creatures may cause an emotional response. For my approach, I thought it would be interesting to isolate the familiar behavior, patterns, and assign them to objects whose appearance does not relate to any living creature. My goal was to create a robotic piece that could trigger an emotional response in the viewer. My line of research consisted of connecting empathy and the "relationship" between two mechanical objects.

Emotion is a subjective experience, associated with mood, temperament, and personality. Emotions displayed between living creatures, such as affection, anger, anxiety, desire, despair, disgust, grief, fear, joy, jealousy, rage, sadness, and surprise, show us that these beings are alive and that a relationship is present. My hypothesis investigated whether the viewer would recognize and empathize with a robot programmed with a behavior that simulates a biological/social behavior. The functionalist approach to emotions holds that emotions have evolved for particular functions, such as to keep the subject safe. I chose to explore curiosity, fear, and caring.

Chapter 3: The Empathic Robots (2010)

The Empathic Robots is a robotic installation where two mechanical creatures communicate with each other through a dance, until a human presence disturbs them. Afraid, they come apart and keep running away until the threat is gone and they can look for each other to resume their courtship.

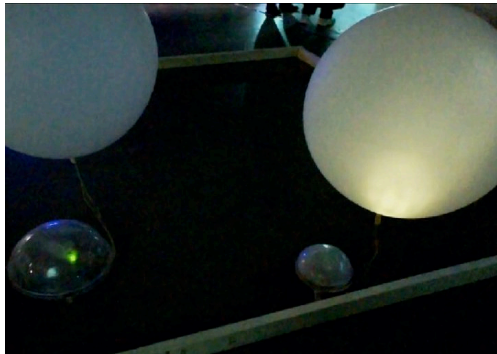


Figure 8. Empathic Robots (2)

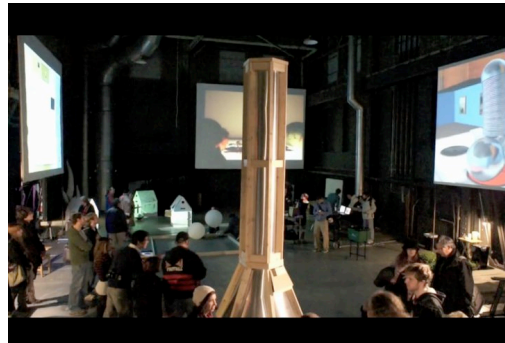


Figure 9. Empathic Robots, Inventeur Show (2010)

Originally, the idea was to explore the relationship between a large robot connected to three smaller robots. This situation would simulate the relationship between a mother and her children, allowing me to investigate patterns in those relationships technically and conceptually. The smaller robots would require programming of specific behaviors to simulate fear and curiosity. Reaction such as fear could be simulated with retreat responses and curiosity with approach responses. While these patterns would establish a basis for a connection

between the smaller robots and the viewer, the interactions between the smaller and larger robots would have to simulate protective behaviors toward the “children” and against the intruder/viewer.

The shapes of the robots would be similar as I would only enlarge the size of the mother robot. Each one would consist of a platform with wheels, covered by a dome. The larger robot would be connected to the smaller robots implying an umbilical cord. It was important for me to minimize the organic features and to detach the machines from our association with existing biological creatures and, thus, to limit the experiment to only behavioral patterns. Some LED lights would be included to emphasize the communication and response.

Stage 1. Prototype and mechanics

This piece was a genuine interest for me, as well as an opportunity to learn robotics. At this stage, I started to build the first prototype and solve the mechanics and the basic programming. By the end of this stage, the robot was able to move backward and forward, turn left and right, and avoid obstacles.

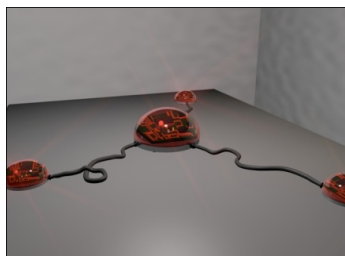


Figure 10. Empathic Robots proposal 3d modelings

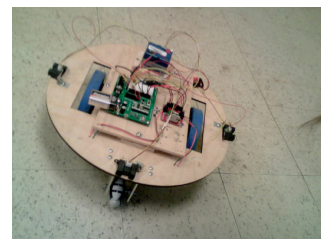


Figure 11. . Empathic Robots prototype

Stage 2. Complex behavior and formal approach

During this stage I decided to program a complex response pattern in which the robot could explore and show curiosity: get close to a human; surround him, exploring on the right; hesitate; go back and surround him again, going to the left; and make noises to communicate that it was satisfied with the encounter. However, I got stuck trying to resolve the idea of how to make the robot recognize a human and retreat when approached by one, simulating fear. I also didn't have the technical knowledge I needed to resolve the construction of the several satellite robots connected to the central robot and the communication among the robots. My main concern was the formal characteristics of the project. I was determined to maintain a non-organic shape, but the form I developed, as well as the loud motor noise made every time the robots moved, made the work more mechanical in appearance and impact than I wanted.

As I progressed with this project, I decided to reduce the variables and complexity. I would only make one large robot and one small one. I realized that I had to limit the space where the robots moved so they wouldn't run into other objects, and by limiting the variables regarding objects the robots might encounter, I was able to determine how to use sensors to make robots "recognize" a human being (or at least differentiate between a human and a wall). I also continued to try different approaches to the robots formal appearance, hoping to hide the circuits and minimize their toy-like look. I tried to

fill the dome with white synthetic stuffing and draw a cognitive map I had been studying and building on the glass dome.

Stage 3. Simplifying and solving the toy appearance

By this stage it became obvious that I needed to simplify even more, cutting through the complexity that had accumulated around the piece over the months of development. I decided the robots didn't need an exploring behavior; they didn't need to be programmed to surround a person. They didn't need to communicate their coordinates with each other. And they didn't need to gather so much information about their environment before making a move.

I developed a love/hate relationship with this piece. I knew there was no possibility of success with the formal solution I had. I found it very challenging to create an empathic situation with something that moves loudly on the floor and looks like a toy. I diagnosed what made it look like a toy: the motor noise, the size, the movement rhythm, the plastic parts, and the plastic-like glass dome. I realized the body had to change. Until that point, everything was presented in a utopian way: uniform, polished, and symmetrical. Now I decided that I had to elevate the body to the height of a human's sightline in order for viewers to perceive the robot differently. If I built or added something on top of it, the platform would lose importance. It would become just a moving platform, but not the piece anymore.

I kept asking myself what to build or add on top: Should it be organic? Inorganic? Branches? Paper sculpture? Balloons? Fabric? I felt that perhaps a non-symmetrical shape could give it a personality and trigger empathy. I questioned if I should convert it into a joke? I considered humor as a way to share feelings. Even though I was once again frustrated that my lack of sculptural experience seemed to prevent me from judging or deciding what was better, I was told that I should see the “not knowing” as a positive thing.

Stage 4. Reverse Engineering

I decided to take a new approach, a reverse engineering approach. Instead of thinking about all the possible actions in a “start-end” order and logic, I started thinking about the last action and working my way backwards.

Instead of moving with the objective of finding people, maybe the robots could stay together and wait until a viewer approached them, entered their space and disturbed their order. Their goal could then be to try to get back together to restore their harmony. If they had empathy for each other, the viewer might have empathy for them.

Final stage. Robotic platform with balloons and LED lights

In the end, each robot had a 25-inch diameter weather balloon filled with helium attached on top and floating over it. The plastic platform in the floor disappeared

in the presence of the invasive balloon. The motor noise lost importance. The balloon was situated at human chest height, and inside were 12 LED lights. The initial pattern was defined as two creatures in their own space, rotating slowly one next to the other, with a slowly pulsing white light inside the balloons. The presence of a viewer makes the robots shut down the light and chaotically leave their positions. After a few minutes, they start looking for each other again.

This piece ended up simulating a stable/unstable relationship between the robots that live in harmony when there is no external element disturbing their environment. Thanks to what I had discovered and learned through this research. I was able to move into my next project.

Chapter 4. “Resulting from or showing sincere and intense conviction” (2011)

“Resulting from or showing sincere and intense conviction” is a piece about loss, pain, narcissism, and relationships. Using and examining the dichotomy of presence and absence, I created a space where the viewer could feel integrated and included in my environment, and could empathize with my emotions, even though those emotions were mediated by a virtual scenario in a video-installation layout.



Figure 12. “Resulting from or showing sincere and intense conviction,” at the Urban Arts Space

This piece is a stepping-stone for my practice because it is the first time that I made an artwork related to my personal experience. Until this work, my approach has been scientific, philosophical, cultural, or social, and I sought to keep my artwork free from direct references to my own life and emotions. Through the process of making this project, I learned to approach my artwork in

a different way. My inquiries about philosophy are strongly present, but in this case the object of study is not abstract data, but me.

The piece is a video-installation consisting of a kitchen table with two chairs facing each other, placed in the middle of the room in front of a 20-foot-long video projection that is split in two halves. The table and chairs invite the public to sit down and participate in the installation, ideally one viewer at a time. The left half of the projection is a closed-circuit video of the viewer sitting in the chair facing the projection. The chair facing the viewer remains empty. The right half of the projection shows a prerecorded video depicting the empty chair. When a viewer sits down, he or she finds on the table a print out of a break-up letter and sees his or her own image sitting at the table in the left side of the projection. After a couple of minutes, I appear in the prerecorded video on the right side of the projection. I approach the table with the letter, sit at the table, and start reading. For about ten minutes, I sit at the table and read the letter, slowly and, seemingly, non-emotionally. Then I stand up, leaving the letter on the table, and walk away from the scene. In the scene projected on the wall, the viewer appears to be sitting at the same table as me, listening to me reading the break-up letter. So, from the perspective of the viewer, it seems as if I, the artist, have joined him at the table for the time it takes to read the letter and then left him alone again, even though he is also intensely aware of being alone, of facing an empty chair, the entire time.

The process of this piece went through several stages, where I explored what my primary concerns were and how I could talk about emotions in a space mediated by technology. My goal was to talk about pain and anger and make the viewer feel empathy. My formal restrictions were body and narrative, and I wanted to try to create an empathic artificial environment within formal elements.

The first phase of my research involved developing plans for a sound installation. Once I determined that the sound installation would not be effective in presenting pain and anger, and triggering viewers' empathy, I transformed the direction of the piece into the video installation described above, where I finally achieved the result I was hoping for.

Stage 1. Distill the essence of an emotion.

In this first stage I wanted to collect experiences of people in situations of pain and anger in order to distill an "essence" of the emotions shared by all of them. I looked for people coming from different situations and target groups: abuse victims, people who had lost jobs, suffered discrimination, lost friends or family members to illnesses or suicide, or experienced trauma, divorce, or chronic depression. I thought I might find participants among veterans' groups, support groups, a women's shelter. I wanted each individual to express the emotions of pain and anger through sound, in order to create a sound environment that would represent an abstraction of the common feeling. Initially, I thought that the voices could be recordings of the people talking about their experiences. Later, I

realized I didn't relate to any of the specific target groups, even though I could relate to the emotions of grief, anger, or pain, and the experiences of abusive and dependent relationships. One problem was that the people narrating the experiences had no emotional expression. Their voices had no signs of emotions, even when they talked about the most painful or upsetting experiences. I wondered how such unemotional recitations could stimulate empathy in viewers, and because of that, I decided that I should have actors interpret the other people's personal experiences.

Stage 2. Focus group and disembodiment.

The Mood Room was an attempt to gather these people's experiences through their voices in a single environment that could project the pain. Technically, the atmosphere would be created by transmitting the different voices through eight speakers situated in a small room. The voices would overlap, and the public would be able to hear, at the same time, several voices talking about emotional pain. I was hoping to make the viewer uncomfortable by making them feel as if they were invading some private, intimate situation (like by eavesdropping) and, at the same time, make them curious about why these people are sad and in pain. The sound atmosphere would change depending on the presence of the public in the room and thus letting the viewer become aware of the fragility of the emotional limits of each individual whose voices they were hearing. Through the sound installation, the audience would experience an atmosphere of the pain or anger caused by broken relationships.

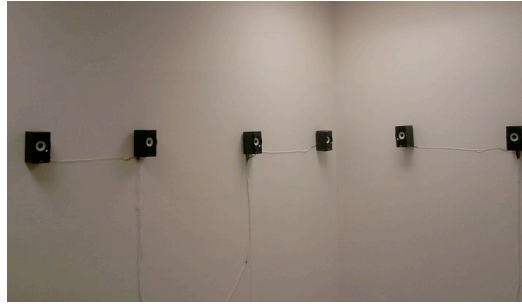


Figure 13. Sound-Installation prototype

My intention was to explore whether I could trigger emotions in the public even if the human element, the body, was removed, and the interface was just an empty room. I wanted to see if it was possible to create an empathic situation in such environment. To push it even further, I wondered what would happen if I also took out the narrative and reduced the voices of the subjects to mere expressive sounds, without the context and backstories that generated their emotions. We know music can cause emotional states in the listeners. Would these sounds be enough to create an atmosphere of certain emotions?

At this stage the piece was not successful. The sound recordings of the actors seemed faked, the overall sound was cacophonous, and the environment was more repulsive than inviting. I decided to revise my plans again.

Final stage. Break-up letter and video-installation.

At this point, I decided to try something new: to draw on my own experiences and emotions. I also shift my thinking to another kind of mediated environment, one that would enable me to bring back the notions of the body and narrative,

through the use of video. I thought it could be interesting and even important to make viewers feel the way I had been feeling. I had been hurt by the breakup of a long-term relationship and obsessing about the break-up letter I had received. I wanted to show the process of using the letter to force myself into states of pain and anger, I had read the letter over and over again, even if I rationally knew it was not “healthy,” in the same way we replay conversations to ourselves, knowing that their result is not going to change. I thought that if I could read this text in such a way that the public would see my pain and obsessions, but at the same time be denied any opportunity for comforting contact, it could create an empathic situation that would also leave viewers off balance.

In the phase of this project that produced *The Mood Room*, I tried to create a space through sound and generate a puzzling experience, as in Janet Cardiff's multi-track sound installations. In Cardiff's work *The whispering room* (1991)²², however, the voices are of non-actors, and different segments of a narrative are played from one speaker to the other. The parts make sense according to the path taken from speaker to speaker. When I abandoned the use of actors and reintroduced narrative into the final, video-installation version of this piece, the results were much more satisfactory than in *The Mood Room*, while still, perhaps, producing an unsettling or puzzling experience for viewers in a space established, at least in part, by the use of sound.

²²Retrieved from Janet Cardiff's website URL = http://www.cardiffmiller.com/artworks/inst/whispering_room.html on May 2011

In its final form, my work is also close to *Take care of yourself* by Sophie Calle (2007). In that work she took a break-up letter, analyzed it, and gave it to 107 different women to interpret according to their jobs. The process and result are obsessive but universal, in the sense that anybody can relate to it, and the same description applies to *Resulting from or showing sincere and intense conviction*. At the time I started working on my piece, I didn't know Sophie Calle's installation, which was fortunate, because it didn't affect or influence my work.



Figure 14. The whispering room,
Janet Cardiff



Figure 16. Take care of yourself,
Sophie Calle

In the sound installation *The Mood Room*, I wanted the viewer to be immersed in a space where he could be the recipient of the emotional state of someone else. And, in spite of the mechanical or artificial interface, I wanted the viewer to connect on an empathic level with the emotions expressed in the recordings and through that connection also enable him to relate the emotions to his own experiences. But in the stages of the project up to and including *The Mood Room*, the viewer wasn't fully integrated into the work and therefore couldn't connect in the way I envisioned. In the final video installation, the viewer is fully integrated in a fictional situation built of real emotions and so is more involved in and part of an intimacy created by a shared space.

I explored several layouts where the viewer could see himself or herself from different angles and experience integration in the space in different ways.



Figure 17 Video-Installation prototypes

I believe that in straightforward single-channel video the viewer wouldn't relate to the person in the video on as an intimate level as she would with a live person paired with the recorded image. As the viewer becomes a part of the scene, she connects more fully to the narrative. The body of the person in the video seems unnecessary, since it is already present, if only virtually, and the viewer is watching herself being read to by that person.

For me, at this final stage, the concept of *Resulting from or showing sincere and intense conviction* has reached a level of the poetic. The space created is calming and invites the viewer to sit at my table and hear what I have to say. He holds in his hand the same letter that I am reading. When the viewer reads the letter, it is not just about me anymore; it transports him to a letter he has received or words he has heard, and the piece becomes about universal memories and experiences of being heartbroken.

After finishing the piece, having observed viewers' responses and discussed it with several faculty members, I realized that the piece was far richer and more complex than I first thought it would be and that it fit into discourses about new media and video art in broader ways than I expected. In Rosalind Krauss's seminal 1976 text on video art, "Video, the aesthetics of Narcissism,"²³ Krauss points to the fact that video is the medium for narcissism. The artist uses video as a mirror. No matter whose body is selected for representation or involvement (the viewer or the artist), the body is always present. Krauss also notes that video is a medium that allows the simultaneous reception and projection of an image. She discusses this in terms of as Lacan's "mirror-reflection," where video becomes "*the monumental construct of narcissism.*"²⁴



Figure 18. *Centers*, Vito Acconci



Figure 19. *Dor*, Peter Campus



Figure 20. *Telematic Dreaming*, Paul Sermon

In Vito Acconci's piece *Centers* (1971), the artist points, at himself, at the camera, and at the viewer at the same time, questioning the medium, but also referring to our own condition of wanting to be the center of attention, in this case of the camera's attention and of Acconci's attention. Peter Campus' video

²³ Krauss, Rosalind. *Video: The Aesthetics of Narcissism*. October, Vol. 1. (Spring, 1976), pp. 50-64

²⁴ idem.

Dor (1975) shows a room where the viewer participates in the projected scene in closed-circuit but never sees himself, since the image stops when he enters the room. In *Telematic Dreaming* (1995), Paul Sermon places two beds in different rooms with one viewer lying in each bed; each viewer shares the bed with a live-feed projection of the person in the other bed. My piece differs from these other video installations, because of its dialogue between recorded and live images. In most similar installations, both participants are either on a recorded video or on a live feed.

My piece makes direct reference to narcissism, through the use of both video and the e-mail, which is the way I received the break-up letter that figures so prominently in the installation. Neither the original communication of the e-mailed break-up letter nor the simulated communication of the viewer in the live-feed image and myself in the recorded video involve direct contact. Both involve people in two different spaces and times, essentially talking to themselves. Unlike face-to-face or phone conversations, with their dialogue between two people, an e-mail is a monologue, whether the recipient reads it or not, in the moment that it is sent. And, in the separate spaces of the live-feed and recorded video, the viewer and I are also enacting disconnected monologues. The discourse is closed. The loop of the video resonates with the repetition of the reading and the obsession of reading the letter again and again, in spite of knowing that the ending is not going to change. The e-mail, as opposed to a

face-to-face breakup, becomes a document, evidence, a tool for “torture” and self-torture.

Yet through the installation, the narcissistic traps of email and video become effective tools for examining the frustrations of contemporary love and its loss. The viewer has a choice: to remain fascinated with his or her own image, with seeing that image from an unusual angle, or to decide to look beyond the self-image, to concentrate on and listen to another person (the recorded me, reading the letter). The viewer is also put in the position of the reader and the one being read to, the one that breaks up and the one that is being left, simultaneously. Yet whichever identification is strongest, the viewer remains in a different space and time than the image of me, unable to do anything for me: unable to comfort me, to reach me, to touch me. There is no dialogue, just as there is no dialogue in the one-way communication of an e-mail. The viewer in the installation’s space is frustrated, just as I was when I received the e-mail, by the absence of interaction, of give and take. The author of the letter writes, “I know what you will say,” “I know what you will do.” But the recipient has no possibility of a dialogue, no opportunity to act or say anything else. In the installation, too, everything is one sided, everything is already said, and the viewer is asked to simply sit and be there, just as the letter’s recipient was. Experiencing that frustration of disconnection, however, can help enable the viewer to move beyond narcissism to empathy.

Empathy sometimes generates sympathy, and in this case many viewers or listeners seem to want to comfort the person in distress. Yet even in the illusion of the video image there is no possibility of contact: the viewer's hands disappear from the projection if he or she tries to reach me. Georg Simmel once called "the touch" the confirmatory sense, the one that collects information and confirms data received by the other senses and, therefore, is an actual sense of reality.²⁵ Here, touch is non-existent and so is the skin's sensitivity to touch that transforms emotions into sensorial information. In Marshall McLuhan's words, the body is mediated.²⁶ The membrane between the virtual bodies on the screen also separates the virtual and the real, the present and the absent, the past (video) and the present (viewer), the two beings in the relationship in different times and spaces.

This piece initiated discussions and ideas that I didn't expect or plan for. New questions appeared as the viewers experienced the piece in unexpected ways. It broadened my own interpretation of the work, making it more interesting, and it gave me a starting point for more ideas to explore in my future pieces and a new body of work.

²⁵ George Simmel,. (1908) *Sociology of interaction: visual interactions*

²⁶ McLuhan, Marshall & Fiore, Quentin.(1968), *War and Peace in the Global Village*, Bantam Books, New York.

Conclusions

During this last year and a half my work has evolved and has been modified, in part because of the changes in my personal life, in part due to knowledge acquired through discussions with and feedback from my peers and faculty. The result is a practice where I am no longer external to my work. I have learned and recognized that my artwork doesn't have to be exclusively objective, abstract, and non-personal or strictly about social, cultural, philosophical, or scientific questions. I can find ways to investigate those questions while also drawing on my own experiences and interpretations. I do not intend to make all my work about me. But I realize that if I want to investigate emotions, I must include a narrative and people. When I tried to build the two major projects discussed here from abstractions, both failed. In the *Postmodern Condition*, Jean Francois Lyotard mentions the importance of a narrative as a tool that can legitimize knowledge. Playing with language and using stories make facts credible and engage viewers. I still find it difficult to create a new work every two or three months, but now I realize I do not need to accumulate knowledge for one year and throw all of it into one complex piece that takes me a long time to produce and drains me out of material. I can build a body of work, make pieces that use the same conceptual research, and explore ways to approach them from

different perspectives. These projects initiated a body of work that I wouldn't have predicted six months ago.

Future:

In future pieces I would like to explore merging recorded video and real-time capture, with the real-time feeds possibly including circuits with and without viewer involvement and integration. I also want to explore other technologies. It was very valuable to solve the video installation of *Resulting from or showing sincere and intense conviction* with lo-tech and simple resources, but I also want to work with video masked in the visual programming language Jitter and incorporate it into a live scene in a public space. I am interested in continuing to explore multiple projections. I am not particularly interested in expanding to larger projections, which might be a rather typical next step. I found working with "real" (human-sized) scale interesting and effect and would like to find other ways to continue in that direction, perhaps working on the wall or the floor. At this stage, I no longer feel that my work should always be responsive and interactive, and I have discovered that there are other effective ways, such as a very human centered narrative, to involve viewers in installations. I also want to explore other senses, such as touch, and think about skin as an interface.

For the first time, I have at least three or four new ideas for installations. I am still very interested in social and cultural issues, and I can imagine a piece about

fear and rage set in an interrogation room, where the viewer is put in the position of the interrogated. I am working on a collaborative interdisciplinary project – a video about homosexuality, poetry, and narcissism. Three alter egos of the same poet (two lying in bed, one in a chair) are reading a poem, taking turns to complete each other sentences. The “bed video” is projected on a bed, the “chair video” on the wall. I also want to record in video some scenes that investigate social issues, like homelessness, immigration, or violence, and isolate the characters by masking and integrate them into a closed-circuit projection. I see this project set up as a mirror in a wall on a street or in another area with high pedestrian traffic, raising awareness about the things we don’t normally see and that can be made visible through such an interface.

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- Putnam H. (1975). *Mind, Language and Reality*, vol. 2, Cambridge MA: Cambridge University Press. Grief, pain, anger, sadness, etc. are "psychological words," says Putnam. "Suppose one learned the meaning of the word 'angry' from other speakers, and one learned to use the word partly by applying it to others on the basis of behavioral indicators; if those behavioral indicators were not what we regard as indicators of anger at all, would it follow that 'angry' did not have the meaning that we ascribe to it?", cf. "Other Minds" pp. 351
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Appendix A: “Break-Up Letter”

Flo

First I apologize for the terrible way I handled this situation. It is not my intention to hurt you, nor humiliate you. Using the phone was stupid, I'm sorry, but anyway, what I had to say would have had the same consequences. I thought about writing, I thought I should wait until 2011 that you'd be done with grad school, I thought about waiting for your arrival in June, however this would have only been a miserable extension of time during which I would have had to have acted in an inconsistent and hypocritical manner, and you don't deserve it. You do not deserve anything but the truth. Delaying the outcome does not imply in any way that this might be less painful.

We have gone through a lot of moments and situations together, some terrible, some wonderful. I will always be infinitely grateful for the care you offered me, and by the attention and effort you offered to us as a couple through our great odyssey. We had a beautiful relationship, a masterpiece, the counter-example to the theorem of banality within couples. And the reality that we present to the outside is far from being the most meaningful. What is the most important is that I'm aware that it is thanks to you, and as a result of your presence, that I am alive today. I will always have that in mind. Believe it or not, it hurts me that our relationship reaches this point.

Over the years we learned many things about each other, we built our lives together and it seemed we would be together for a long time. You witnessed and inspired my evolution as a human being. Living with you by my side all this time, encouraged me to reconsider my life as a possibility and to rebuild self-esteem destroyed years ago. I had lots of bad behavior toward you; on many occasions I was a lousy partner. But you had the patience to stay by my side. Over time I learned to want to be alive. I went out into the world, in which I now try to be comfortable and fit in. I struggle not to lose that perspective, because that would be a total lack of respect for what we have lived together. A waste.

But the truth is that I have been thinking for a year that it is possible that our relationship was based on the arduous task, in the shared desire of getting me out of my apathy and counteract my self-destructive tendencies. As a couple, we constantly face this challenge and we did well. This desire to survive kept us together, confirming the vital passion that kept our family strong. And now things have changed, I have changed, I am not the same person, I left my youth behind, and I do not think in absolutes, and there are many things that I don't think about. I'm trying to live again, gradually gaining strength not to give up my projects, learning the patience to not despair, to not reproach myself for my years of immobility. I feel that with all this, I am becoming a selfish person. I am sorry.

Love must imply freedom and in that sense we should not depend on our past or our future. For months I felt that our relationship had become a desperate anticipation of the times to come. We don't have a direction anymore; my expectations don't surpass anymore the pseudo-obsession of buying a television, a computer, a camera or anything else. Our future plans reside in a repetition of the present, study more, in another country, collect degrees, scholarships, but Flo, I am sorry, we weren't going to leave the monotony that overwhelms me. However far we might have gone, as much as I might have wanted, I'm not motivated anymore. I am Sorry, Flo. Flo, it really hurts, but that's the truth. We do not deserve to hate us gradually, go on blindly to progressively hate us in silence, speaking only to discuss triviality, or the news, immersed in everyday life that just consists in shutting up and assume certain roles that no longer satisfy us. Mediocrity where only the habits survive. Or live just for the outside appearance, way to live abroad, be stubborn and resist because we are the most stable couple we know, because people are surprised with our past, because people like to tell our story. We cannot transform ourselves in what we both hate.

Do you think this doesn't tear me apart? I have taken the asshole role. It doesn't bother me. My feelings are deep sadness, some guilt, but I have mental and emotional clarity. I understand you feel betrayed, disappointed, I understand that you hate me, that you don't want to answer me; that you don't want to talk to me. However I do not want you to be unhappy nor me, and you need to understand that this is the only future we have left. You know I love you and cherish as the most important person in my life, one that helped me survive. It is not my intention, it wouldn't even be possible, to forget everything we lived together. We built a home, but it came at the wrong time, we built it thinking about other people, in other versions of ourselves that we are not and will not be.

With your decision to go to Ohio, I am in a situation that causes me great confusion, I came to feel very comfortable in your absence, I had moments where I did not want to communicate with you. I feel guilty, I feel my betrayal, and I do not like it at all, it distracts me, I am puzzled. My bad mood is evident in our exchanges. Suddenly I realize I have never lived in this house sober by myself and that situation pleases me. But I still feel guilty. I cannot live like this. My own mental stability tells me I cannot live like this, that same stability we struggle so much to achieve.

I also understand that you want to attribute my decision to split to external causes. I think that if you believe that, that effect will only be to make you feel humiliated. That is very far from my intention and it did not happen this way. There are moments in life that appear to be coincidences without explanation. Some things combine, add, but in no case determine or alter the course of events. Remember

your visit in December, while your return was something that made us happy; we soon resumed our usual routine without emotions. I was excited by the idea of gifts; you spent most of the time looking at your emails. We got back to our daily dynamics. In short, your departure did not change our relationship, not bring us back together and that was what we both expected. I began to complain that you were on your computer, I started to manifest my discomfort, but I didn't have the slightest idea of how to renew, strengthen our ties and feelings.

This is the reality, these are my feelings, they are the cause of my reflection and they lead me to this difficult decision. But do not feel humiliated, that's beside the point. I have not lied, I do not deceive you, I won't go there. On the contrary, the easiest is to lie and deceive, it's the usual. But such behavior would not live up to what we have lived together. You deserve to know the truth, for respect for the couple we were.

Ernesto.

Appendix B: MFA Show



Figure 21. "Resulting from or showing sincere and intense conviction"



Figure 22. Resulting from or showing sincere and intense conviction”