The Loop is a stop-motion animation short exploring human relationships with anxiety. In this animation the viewer watches the main character and her response to an abstract feared element. Through the use of a metaphorical structure (a Polaroid camera as her perception, a file cabinet as her memory, a fear gauge tracking her emotional state, and a “respond” button embodying her choice of action) the character mechanically and externally processes reactions that typically happen in one’s thinking patterns. Over the course of the story one watches as the character becomes more and more entangled in a vicious cycle of thoughts that seem only to feed on themselves. When, however, she is introduced to the concepts and processes of exposure and habituation, the viewer witnesses how this thinking pattern shifts. The metaphorical elements have the same relationships to each other, yet the cycle is broken.

While fear and anxiety are fundamental aspects of human emotion, with The Loop I aim to look at them from a broader perspective. If we look around us, risk-management is being offered in every outlet of our daily lives. From life insurance, to sterilizers, to alarm systems, audit defense, cord banking, genetic screenings, and surveillance systems, we are constantly presented with the opportunity to gain a greater sense of security and control. The question is: do we feel any safer? Arguments can clearly be made for the legitimacy of these developments, and the human tendency to continue to enhance protection. It would be hard to argue against advancements that have potential to save lives or take away unnecessary
threat. But is our societal structure communicating an intolerance of uncertainty? Will any amount of control be enough, or will we simply become increasingly sensitive to the gaps in our safety nets? In modern life, our fight-flight reactions often seem misplaced. A call from the IRS doesn’t pose the same type of threat as being chased by a predator, yet our instinct to fly into a panic remains the same. An attack from a lion poses an immediate danger, calling for adrenaline and determined action. Running from (or arguing with) the tax-man, on the other hand, will most likely make the situation worse. Are these responses remnants of a more volatile past that are no longer functional for survival? Modern media offers us an increased awareness of the obscure dangers that are beyond our individual power to prevent - atomic bombs, radiation, infectious pathogens, terrorism, and catastrophic natural disasters - none of which we can begin to imagine, realize, or do anything about. Does this knowledge contribute to a feeling of persistent threat calling us to seek an even greater sense of control over the everyday and mundane? At what point is our desire for control actually controlling us, and at what cost?

Dysfunctional anxiety is common in our culture. According to the Anxiety Disorders Association of America, over 40 million Americans suffer from debilitating anxiety that is omnipresent, and this number is sharply on the rise (www.aada.org). Since stigmas around anxiety remain prominent, how this diagnosis affects an individual’s sense of self requires careful consideration. Medication is certainly one avenue of exploration, yet messages promoted by pharmaceutical companies may lead to a greater sense of victimization rather than empowerment. It is critical that we be cognizant of the social consciousness around these issues. How might we combat feelings of inferiority by demonstrating techniques and philosophies that promote the acceptance of uncertainty? In *The Loop* I explore these questions through one woman’s experience with a positive feedback loop created by the inability to tolerate threatening emotions. I also introduce concepts from Cognitive Behavioral Therapy, which promote the acceptance of perceived danger. Through this intimate portrayal, I contribute to both personal understandings and the broader conversations around the causes and implications of anxiety in our culture today.
I animated *The Loop* using a combination of puppet stop motion, object animation, and compositing techniques. The main character is made from a ball and socket armature with a magnetic tie-down system. The body is built of foam and fabric, while the hands and head are molded from polymer clay. The hands are animated using the replacement technique, a collection of gestures which can be swapped from one frame to the next. The face has photographs of my own eyes composited directly onto the character to create a dynamic range of emotion. The set consists of both fabricated props and found objects, which complete the character’s world. By using object and puppet animation to demonstrate techniques used in Cognitive Behavioral Therapy, I consider how methods of animation, and the unique relationship of animation to its audience, might play a critical role in understanding these key concepts.

**Part One: Functional Fear vs Dysfunctional Anxiety**

Albert Ellis, an American psychologist considered to be the founder of the cognitive behavioral therapies, describes living a life with anxiety:

“Worry itself develops into one of the most painful conditions. And most of us would remain better off dead than “living” in its continual throes. If you unavoidably encounter the real dangers of blackmail, injury or death, you’d better frankly face them rather than continue to live in panic.
You may well prefer a life in jail or even no life whatever to spending the rest of your days running, hiding and panting with intense anxiety” (147).

One of the primary themes that The Loop explores is how functional fear becomes dysfunctional dread. Throughout the animation the cause of the character's fear is left ambiguous. By leaving the audience to question the validity of her reactions, I pose the following questions: Is constant, omnipresent anxiety, no matter what the content, ever functional? How does functional fear transform into dysfunctional dread, and (as Ellis implies) is there a point at which the assessment of actual danger becomes obsolete?

The Loop opens to find a woman reading intently in her living room. It is night, and time passes as she flips through pages, clearly engrossed in the material. She turns yet another page to find an illustration of a red star. The character looks up, frightened and alarmed, and then reexamines the image. A look of dread settles in as she closes the book, places it on the coffee table, and exits the room. The next scene finds the woman facing a bureau. She opens its top drawer to reveal images of red stars similar to the illustration in the book. She watches in fear as they animate, pulsing and twirling in place. She rolls up the sleeve of her jacket to reveal a meter and a button marked “escape” on her arm. The meter reading rises, and the button pulses red. The character, clearly panicked, presses the “escape” button. A Polaroid camera surfaces from behind the character's head, snapping a picture of the stars and storing it off the bottom of the screen. The meter reading lowers as the character expresses relief. The stars have disappeared.

In this scene I introduce the viewer to an abstract feared element (depicted as red stars), and define the character's relationship to it. The character is disturbed by the illustration in the book, and reminded of parallel imagery in her own life. Her response is to try to “escape” the stars because she is intolerant of the emotions they provoke. I chose to represent the feared stimuli as abstract symbols without specific
content because I wanted the audience to question whether the stars pose an actual threat to the character, or if her response is unjustified.

As night passes, the camera finds the woman tossing and turning in her sleep. Awoken by the sound of an alarm, she rises from bed and discovers that red stars are now pulsing on the floor. Once again, she panics and presses the pulsing red escape button on her arm. This cycle of fear and avoidance continues the following morning at breakfast and throughout the next day. Stars have infected every aspect of her existence, coating her violin case, shoes, ice tray, couch, bed, walls, etc. The anxiety builds and builds until it is continuous and all-consuming.

Through this sequence of events I demonstrate the transformation of fear into constant, omnipresent anxiety. Her reason for fearing the stars in the first place remains undefined, but more importantly, her emotions have gotten in the way of her daily life. I believe everyone can think of examples where anxiety, worry, or dread has consumed them, the abstract or “virtual” nature of modern fear perhaps leading to this emotional state more frequently. Through this sequence I am questioning how productive fear transforms from being a necessary survival instinct, to presenting unnecessary emotional obstacles, and whether the cause of the initial fear is ever relevant.

Let us say there was a threat we could all agree on, for example the threat of dying from cancer. We take whatever precautions we can to increase our chances for survival, but since the nuances of these precautions are endless, each action seems only to unfold into more and more uncertainty. At some point productive fear, necessary protection to promote survival, transforms into anxiety, an emotional burden. However “justified” the fear of cancer may be, the “realness” of the content now seems inconsequential. What is very real is how we feel about it. We can look at this scenario from an individual perspective, or from the perspective of a whole society facing fears like terrorism or threats to public health. There no
doubt is a point at which the need for certainty seems only to be a handicap, overshadowing our ability to have a healthy dialogue around the topic. Soren Kierkegaard describes this distinction between anxiety (dread) and fear, writing that dread “is different from fear and similar concepts which refer to something definite... dread is freedom’s reality as possibility for possibility” (38). This “possibility” that something could be harmful, or turn into a catastrophe, fuels and heightens the emotional response, resulting in feelings far more threatening than an actual “definite” danger. Where do we draw the distinction between productive fear, and dysfunctional dread? Is our culture with its barrage of constant warnings, obscure lawsuits, and products that turn profit from offering reassurance, leading to a greater need for security? I imagine a bottle of pasteurized juice sitting on a grocery store shelf. Surely by flash boiling the ingredients we’ve obliterated the possibility that harmful bacteria will work its way into our digestive systems, but in the process have we also destroyed the nutrients that would have been the most beneficial to our health? In focusing on eliminating risk are we overlooking the positive impacts of living with, and accepting feelings of uncertainty into our lives? As Freud pointed out, “if some of our thoughts, feelings are unacceptable to us, we want to disown them but only at the cost of disowning valuable parts of ourselves... Your ability to cope with the world becomes less and less” (as cited in Foa and Kozak, 20). How can we control our need for control? The Loop contributes the unique voice of animation to an investigation of these questions.

**Part Two: Adopting Ideas from Cognitive Behavioral Therapy**

Historically, psychoanalysis provided little relief for individuals suffering from anxiety. It wasn’t until the advent of the behaviorists, who believed that all things humans do (thinking, acting, feeling, etc.) should be regarded as behaviors and unwanted behaviors as symptoms, that solutions for anxiety began to arise. It was their belief that, much like a common cold, discovering how or why one acquired a behavior wouldn’t lead to its cure. Behaviorist methods merged with concepts from the cognitive revolution to
create Cognitive Behavioral Therapy (CBT), which is now widely accepted as one of the most effective treatments of anxiety.

In *The Loop* I explore how the character’s reactions to a feared stimulus affect her future emotional state by setting up a structure of metaphor. Highlighting her response to the anxiety (rather than the source of it) demonstrates the impacts of her choice of action. By doing so I am questioning whether it might be possible for us to establish a sense of “security”, not by controlling our surroundings, but by reevaluating the ways in which we respond to them. We often discuss the negative rolls of desensitization or habituation, but I suggest that these might be valuable tools in reclaiming our emotional responses.

It is commonly believed that our emotions harbor some sense of inherent truth. With phrases like “follow your heart” we prioritize emotion over logic in making critical decisions. Since most of our thoughts are processed unconsciously, in turn affecting our emotional state, it is no surprise that emotions often serve as insight into the whole of what we are actually thinking, conscious and unconscious combined. However, if we view emotions as the output of thought, they are no more “truthful”, or “real” then the thoughts which caused them. Skewed or distorted thoughts produce equally “inaccurate” emotions. In the case of fear, this is a common misconception: “I feel afraid so therefore there must be something worth fearing.” Sometimes this is the case, and sometimes it is not. One’s emotions may simply be the result of flawed or unhelpful thinking. The problem arises when one allows *feeling* to be the gauge of accuracy without question of its origin. As Jean-Paul Sartre states, “feeling is formed by the deeds that one does; therefore I cannot consult it as a guide to action” (9). In contrast, if we view *feelings* as the results of our *thinking*, they become separated from our sense of definite truth. We also see that through processes of thought we can effectively manipulate the feelings they output. I don’t mean to propose that simply thinking about something from a different perspective will alter the way one feels about it. While one might have that freedom when solving a problem that is not emotionally-loaded, the stakes with dread are
far too high for such a simplistic solution. However, if one recognizes this distinction, tools like fear conditioning and Exposure Response Prevention (ERP), which rewire conscious and unconscious thought patterns, can take effect. In *The Loop*, the main character stops looking to her emotions as an indicator of truth, and instead recognizes her freedom to define her perception. It is only by observing the correlation between her thoughts and emotions that she is able to fully realize the impact of her choice. As Sartre stated, “You are free, therefore choose, that is to say, invent” (Sartre, 9).

*The Loop* explores ERP and other concepts from Cognitive Behavioral Therapy through a metaphorical structure that demonstrates the effects of each response. Each time the character is presented with a star (the representation of a feared stimulus) her fear meter rises and the “escape” button on her arm begins to blink. If she chooses to press the escape button, a Polaroid camera emerges from her head and documents the stars. The next time she encounters stars, the photographs taken previously are presented again.

As demonstrated by the relationship between these symbols, avoidance of a feared stimulus assures that it will be perceived as dangerous when encountered in the future. “Fear is represented in memory structures that serve as blueprints for fear behavior” (Foa and Kozak, 21). The red button on the character’s arm
embodies her choice of action, highlighting the moment in which she makes an actual decision. While she has no immediate control over the reflexive emotion provoked by the feared stars (the meter rises automatically), she does choose her response. She can choose to either “escape” the feeling and situation (by pressing the button) or accept it. Each effort she makes to eliminate the fear mentally reinforces the notion that the stimulus is dangerous and should therefore be avoided. Instinctively assuming that knowledge of the threat will promote future survival, the Polaroid camera records a detailed account of the moment to the character’s memory structure. In an effort to protect her, these forms of mental documentation surface whenever a similar situation is encountered, further influencing the character's choice of action. In this way a “loop” of fear and avoidance is born and reinforced each time she presses the button. Soren Kierkegaard describes this feeling of unbearable uncertainty, writing that “however deep the individual has sunk, he may still sink deeper, and this ‘may’ is the object of dread” (101). The inability to accept that danger might still be present increases avoidance patterns and causes the perception of danger to spread.

This cycle of fear and avoidance continues until the character reverses the dynamic of her relationship with fear. One by one she, takes each Polaroid snapshot, puts it in a frame, mounts it on the wall, and stares at it. The reading on her meter rises, but this time she does not press the blinking “escape” button. She continues to stare at the mounted Polaroid photograph. With time, the reading on the fear meter drops. By the end of the scene all the photographs have been mounted on the wall, and the meter’s reading has lowered.

This scene is used to demonstrate the Exposure Response Prevention (ERP) technique. ERP is used to confront a fear, without enacting an escape response. By intentionally exposing oneself to the feared element, the relationship between the stimulus and interpretant is altered. By running toward the fear as opposed to away from it (framing the imagery, rather than trying to expel it), the character is
demonstrating an ability to accept the possible danger of the stimulus. While at first these actions will likely cause higher levels of anxiety, repeatedly facing the fear and coping with the feelings that accompany it will eventually lead to habituation. Much like the framed photographs accumulating on the wall, ERP utilizes a hierarchy in which levels of anxiety are brought up gradually, giving the interpretant time to habituate to each level before turning up the heat. By changing the dynamics of her relationship to anxiety and no longer trying to escape it, she reconditions her response.

The techniques of CBT are refreshing in that they return agency to the individual rather than point fingers at the causes of anxiety, which are often beyond our control. While clinical uses of these treatments have no doubt proven successful, how might these philosophies and techniques be applied more universally? While we may dread the unrealized and unimaginable, it seems to me that the greatest threat is to live in a culture of anxiety with a limited feeling of freedom. Perhaps the danger of losing one’s life and livelihood to dread is the one threat we can in fact manage. Through approaches to thought that highlight the impacts of our responses, perhaps we can recognize the true power of choice and restore a sense of autonomy. I hope The Loop and the questions it provokes contribute to a dialogue about our thinking patterns and their effects on our daily lives.

Part Three: Animated Objects and Metaphor

The Loop is animated using a combination of object, puppet, and digital animation techniques, which are combined to create a fabricated world where the inanimate establishes new meaning through motion. This unique approach to the subject matter allows for a sense of play and a distinct perspective from the written word. Through this practice I explore the relationship between animation and its audience, to gain a greater understanding of how we process this form of moving image.
To understand puppet and object animation one must first understand how it differentiates itself from 2D drawn animation. 2D animators work in the freedom of complete fabrication. They render objects or characters, yet the world they create exists nowhere but in the illusion of the animation itself. Suzanne Buchan observes that when viewing 2D animations, “we understand them through spatial and cultural clues and can imagine what the referents represent through the suggestions made by images” (21). These clues, as well as previous knowledge of animation, enable our perception of space, emotion, and movement. The viewer is immersed in a completely fabricated world, referring to but unlike the one we live in.

In contrast to 2D animation, the illusions of puppet or object animations are often created using recognizable materials and objects. The animation is enacted in an actual physical space. “Although the events we see on screen did not occur, the objects do exist. Puppet animation thus represents a different ‘world’ for the spectator, something between ‘a world’ created with the animation technique and ‘the world’ in its use of real objects and not representational drawings” (Buchan, 21). Puppet animation is neither a complete mirror to a lived reality (as is the case of live action film) nor complete fabrication as is 2D animation. The animator uses objects we know and have meaning, yet is able to give them new meaning by bringing them to life. Richard Weihe describes the effect: “When viewing the film the different positions of the puppet merge and reproduce a fluid movement. This is when we describe animation as breathing life or movement into dead matter, creating illusions of a ‘soul’ by means of a technique somewhere between photography and film that exploits a specific mode of perception” (42).

An example of the inanimate establishing new meaning through motion can be found in the Quay brothers’ Street of Crocodiles (1986). In one scene the viewer witnesses a single screw as it twists itself out of a wooden window sill. This action seems to inspire other screws, which then twirl and free themselves from various structures throughout the scene. The Quay brothers use typical unaltered
household screws, yet through the nature of their motion they are filled with character and life. Previous understandings of the object are quickly brought into play. The scene provokes empathy towards the screws in their yearning for freedom, yet questions what will happen to the structures they leave behind, now unsupported and unattached. This fusion of the everyday (they are actual and recognizable objects) and the fabricated (inanimate as animate) allows for the Quay brothers to pull from previously established meanings, and give them new importance in the fanciful world they create through motion.

In The Loop, I present a similar use of familiar objects. The primary themes of the piece can be found in the relationship between the meter the button and the Polaroid camera, used to illustrate how fear and avoidance cycles are formed. I rely on the viewer's previous knowledge of a Polaroid camera as providing an instant form of documentation, coupled with the illusion of it having “life”. Through its motion and the relationship of this motion to the other objects, the camera gains importance, asking the viewer to consider its role more carefully while building a complex structure of metaphor.

It is generally believed in cognitive science that unconscious thought makes up to 95% of all thought. George Lakoff describes that this “unconscious conceptual system” which is largely metaphorical “functions like a ‘hidden hand’ that shapes how we conceptualize all aspects of our experience” (13). It is metaphor that enables us to reason about abstract concepts (“subjective experiences”) based on our knowledge of physical or “graspable” experience. “Metaphor allows conventional mental imagery from sensorimotor domains to be used for domains of subjective experience” (Lakoff, 45). The Loop depends on the metaphorical processing of thought as its primary method of communication, allowing the viewer to comprehend abstract concepts through objects in motion.

With the natural tendency for familiar animated objects to carry metaphorical meaning, it is no surprise that animators have been drawn to stop-motion animation to reach abstract understanding. In Dimensions
Of Dialogue Pt:1 (1982) Jan Svankmajers builds his own metaphorical structure with the use of everyday objects. Two characters approach center screen, one made of food and one made of metal tools. The character made of metal tools devours the one made of food. Once he is finished, the character made of tools proceeds to meet a character made of office supplies. The office supplies devour the tools. The animation continues to examine the relationship between these three characters. As Wendy Jackson commented, “one could almost make a dictionary of objects as symbols in Svankmajer’s films, something akin to Freud’s Interpretation of Dreams” (as cited in Weihe, 47). Svankmajer’s objects are familiar, and the viewer’s knowledge of these tools, foods, and office supplies is the key to unlocking their content. Viewers are able to project their understanding of these objects onto the abstract concepts they represent. Their relationships to each other are defined through their motion, suggesting a dreamlike experience in which one builds off lived-world interpretations to create alternative meanings.

In discussing behaviors and thought-processes, we search for metaphors to give ground to abstract concepts. It is not uncommon for the same analogies to be repeated and passed on because of their ability to represent key content. If in our speech patterns we rely on these representations to problem-solve, visualizing these concepts seems critical. Object animation enables viewers to “project inference patterns from the source domain to the target domain” (Lakoff, 128), or in the case of The Loop, from the objects themselves to the psychological states they represent. Although metaphorical thinking makes up a large percentage of our unconscious thought, it is rarely accepted as a truth-seeking form of analysis. “The banishment of metaphor from the realm of truth explains why metaphor has traditionally been left to rhetoric and literary analysis, rather than being taken seriously by science, mathematics and philosophy, which are seen as truth-seeking enterprises” (Lakoff, 120). With The Loop, I am challenging this role and suggesting that if metaphorical thinking is critical to conceptualization, then perhaps it should be used more frequently as a tool for analyzing behavior.
Part Four: Animation Audiences

Since stigmas around issues of anxiety are prominent in today's culture, I realize the importance of establishing a strong empathetic connection between the main character of *The Loop* and the audience. The role of the spectator in object animation makes it an ideal setting for demonstrating psychological content which requires an open-minded viewer. Richard Weihe explains that this role is active one, “Animation employs the spectator’s imagination. The craftsmanship of the animator does not produce any complete illusion of life, while it is up to the spectator to complete the visual impressions and conceive of the animated figure as a living being displaying human traits” (42). The animator is reliant on the imagination of the viewer to complete the illusion. Buchan refers to this relationship as one of denial, pointing out that “Methods and techniques used to create animation permanently rupture the ‘world’ it creates because the impossibility of what we see draws attention to the fact of its illusion” (26). In this
way object animation is akin to a world of make believe; the viewer is playing along for imagination’s sake. It is, however, the creation of this active viewer- animator relationship that allows for content to be understood on a personal level. In *The Loop*, the more the viewer integrates their own interpretations of anxiety with the metaphorical structures put forth by the animation, the more the piece will resonate. It is the very awareness of illusion that calls for the viewer to play their part.

In looking at the ways in which humans respond to feared stimuli, it is hard to ignore the distinction between rational and irrational fear. *The Loop* takes the behaviorist approach, treating both as merely triggers of responses and behaviors, rather than justifying one fear over another. An encounter with a feared stimulus is seen as an event and the particular content of that event inconsequential. As stop-motion animation is a combination of the everyday and the fabricated, dependent on the viewer to complete what they know to be an illusion, the process of viewing requires that the viewer let go of their concern with what belongs to a lived reality or an imagined one. It is this freedom, inherent to its form, that allows *The Loop* to move beyond the content of the feared stimuli themselves, and instead take a closer look at the ways in which one chooses to process them. Torben Grodal elaborates on this concept when discussing animation audiences,

> Important for the mode of perception is an evaluation of whether the seen or heard has its source in, or represents, an exterior hypothetical or real world or an interior mental world... If the perceived is constructed as belonging to an exterior world it cues the mental stimulation of an enactive world; whereas, if the perceived is constructed as belonging to a mental world, it cues a purely perceptual -cognitive, proximal experience (158).

As object animation is a merging of the “exterior” and the “mental” worlds, there is an ease in translating psychological processes which are influenced by both interior perceptions and
exterior actions. Furthermore, by belonging partially to an “enactive” world, one’s expectations of the familiar are altered, making room for the mental shifts necessary to fully perceive this type of content.

Object animation allows us to enter a dream-like state. By completing the illusions set forth by the animator, we complete the characters we observe. As in our dreams, these characters are partially projections of ourselves, leaving us little room for judgement. We leave behind the comparison to a lived reality and enter into a field of play where accuracy is unimportant. Emphasis is instead placed on the freedom to recognize connections and create alternative logic. Similar to what Freud referred to as “day residue”, where memories from our daily lives resurface in our dreams to offer up new meaning, the familiar objects of these animations gain importance and lead to understandings we may have overlooked.

In the Surrealist Manifesto, André Breton discusses the often underestimated power of dreams, “It is, in fact, inadmissible that this considerable portion of psychic activity… has still today been so grossly neglected. I have always been amazed at the way an ordinary observer lends so much more credence and attaches so much more importance to waking events than to those occurring in dreams.” Breton recognizes that the freedom inherent in dream-logic might lead to a more powerful comprehension, and it is this belief that inspired the Surrealists. “What reason, I ask, a reason so much vaster than the other, makes dreams seem so natural and allows me to welcome unreservedly a welter of episodes so strange that they could confound me now as I write?” (Breton)

Formal comparisons between The Loop and Surrealist painters like René Magritte are abundant throughout the piece. While the objects themselves appear to be very real, it is the obscure way that they are placed in relationship to each other (a file cabinet emerging from the stomach of a woman) that references the unconscious. Shifts in scale and surprising relationships between images highlight the emotional content of the work by toying with viewer expectations. The unexpected and often illogical
reasoning that *The Loop* explores stimulates thinking without the need to draw conclusions. Magritte stated that "a painting does not express ideas but has the power to create them" (as cited in Stake, 56). He claimed that his paintings did not transmit thought but instead provoked thought, realizing that each viewer would build their own logic based on individual experience (Stake, 56). In his work, he de-emphasizes the importance of expressing a conclusion instead aiming to inspire mental processes that would lead to alternative logic. In describing one of his best-known pieces, *The Human Condition*, 1933, he states,

> I placed in front of a window, seen from inside a room, a painting representing exactly that part of the landscape which was hidden from view by the painting. Therefore, the tree represented in the painting hid from view the real tree situated behind it, outside the room. It existed, for the spectator, as it were, simultaneously in his mind, as both inside the room in the painting, and outside in the real landscape. Which is how we see the world: we see it as being outside ourselves even though it is only a mental representation of it that we experience inside ourselves.” (as cited in Stake, 59)

By creating an unexpected relationship between the painting and the landscape, Magritte encourages the viewer to contemplate the relationship of inner perception to the outside world.

Similarly, in one scene of *The Loop*, the main character looks out at a giant version of herself through the window of her apartment. The two instances of the character lock eyes in terror. The shock of seeing the character literally outside herself looking in at herself, presses the viewer to consider the relationship of these internal and external worlds.

When analyzing psychological behavior, a surrealist approach like that of Magritte, meant to stimulate new patterns of thinking, seems ideal. It is in this field of play that *The Loop* examines the mental processes of anxiety. Both the concept and the treatment of imagery encourage the viewer to consider
alternative ways of processing thought. Distinct from the written word, *The Loop* looks at how metaphor and dream-logic might be used as truth-seeking forms of analysis, helping us to think about these issues from a unique vantage point.

**Part Five: Facial Expressions**

To establish and maintain audience empathy, animators must attend carefully to the treatment of their character’s facial expressions. In recent years, formal systems for decoding expressions developed in other fields, have been appropriated by animators wanting to convey emotions more effectively (Buchanan, 75). These methods present opportunities in communicating types of expressions unseen in previous animated films. Though these explorations have just begun, the results suggest that animators using such techniques will succeed in communicating a more complex range of emotions to their audiences. In the making of *The Loop*, I knew it was critical that I be aware of these advances.

In the study of facial expressions, there are two main types under which most expressions can be defined. Deliberate facial expressions are those that one processes consciously, while spontaneous facial expressions are those which unconsciously emerge. “The facial expression commonly referred to as ‘the smile’ in fact is not a singular category of facial behavior” (Ekman, Frank and Wallace, 217). In animation, characters tend to demonstrate yet a third type of facial expression referred to as the symbolic or artistic facial expression (Buchanan, 2009). In *What is a Sign*, Charles S. Peirce discusses the three categories in which all signs can be defined, “Firstly, there are likenesses, or icons; which serve to convey ideas of the things they represent simply by imitating them. Secondly, there are indications, or indices; which show something about things, on account of their being physically connected with them... Thirdly, there are symbols, or general signs, which have become associated with their meanings by usage.” The u-shaped smile found frequently in animation falls in the third category, a symbol. The upward curvature of the line originated from the likeness of a smile, but now bears little physical resemblance to an actual
smile. Peirce describes this process of emerging symbols, stating that “Symbols grow. They come into being by development out of other signs, particularly from likenesses or from mixed signs partaking of the nature of likenesses and symbols”. The development of symbolic facial expressions has allowed for a simplicity that animators have relied on in conveying the emotions of their characters.

However, one drawback of using symbolic facial expressions in animation is the inability to define specific types of expressions beyond the obvious. Pierce describes this limitation: “a symbol, as we have seen, cannot indicate any particular thing; it denotes a kind of thing.” This is clearly the case of the symbolic smile. One cannot distinguish from the symbol whether a smile is deliberate or spontaneous. If the character is smiling out of politeness, instead referring to a deliberate facial expression, it is left to the environment (indications), not the expression itself, to reveal this. In this way, the symbol is only completely legible in its relationship to the surrounding signs which further define it.

Another drawback of using symbolic expressions is that symbols rely on referential knowledge to deliver meaning. “The symbol is connected with its object by virtue of the idea of the symbol-using mind, without which no such connection would exist” (Peirce). The use of symbolic expressions in animation may therefore not be universally understood and are dependent on “referential knowledge, generated by previous viewings of animated productions” (Buchanan, 79). While symbolic facial expressions allow for a simplicity on which many animators rely, new exploration into the use of deliberate and spontaneous expressions offers animators an entirely new set of tools.

Many believe that spontaneous facial expressions generate empathetic emotional responses more effectively than deliberate ones (Buchanan, 78). We are more likely to identify with a character who displays purely reactive expressions than one that poses emotions appropriate to the environment. Our ability to distinguish instantly and unconsciously between these types of expressions has become a means
for survival. As Charles Darwin noted in his study of the perception of photographs in which people smile, “almost everyone recognized that the one represented a true, and the other a false smile; but I have found it very difficult to decide in what the whole amount of difference consists. It has often struck me as a curious fact that so many shades of expression are instantly recognized without any conscious process of analysis on our part” (359). We are immediately aware of whether someone is smiling for the camera or out of pure enjoyment, and more likely to connect to the latter. Our ability to distinguish between the two is instantaneous, even if we are unable to consciously pinpoint what the distinguishing factors are. Viewers are more likely to relate to a character that appears to be conveying genuine emotion, feeling that their responses are free of calculation.

In *The Loop*, one’s empathetic connection to the character is critical. Expressions of fear are automatically generated, therefore the character’s facial expressions must be perceived as spontaneous. In consideration of this, I decided not to use symbolic facial expressions, knowing I would be unable to distinguish between spontaneous and deliberate reactions. Instead, I chose to composite photographs of my own eyes directly onto the puppet suggesting a wider range of emotion. While her mouth remains static, neutral, and closed, the eyes alone carry the narrative of her reactions.

I was inspired by a technique developed by visual effects artist Jason Walker in the animation *Madame Tutli-Putli*, in which live action eye performances were synchronized with the animated footage of stop-motion puppets. The combination is striking, leaving the viewer with the sense of looking into the characters’ souls. Without the resources of a full blown animation studio, I developed a technique by which I could capture similar levels of emotional connection. I created a series of eye charts, which consisted of still photographs of each possible expression for each pupil position. I was then able to composite and synchronize these images to my animated footage using scaling masking and color
correction. The process required frame by frame manipulation, following movement while swapping one photograph with the next.

In order to ensure that the character’s expressions will be read as genuine and spontaneous, I turned to a technique used commonly in film for generating subconscious expressions: method acting. Method acting requires that the actor remember and relive real life events where they previously felt the emotions they are trying to demonstrate. By re-imagining these events they are able to produce spontaneous expressions, unconscious of their facial movements. Mark Walsh, animator of the character Dory from *Finding Nemo* used method acting to create the emotions of his character. He would attempt to relive events in his life which produced similar emotions to those of the scene. He then recorded himself reading the script, to use as reference footage (Buchanan, 80). Mark Caro of the *Chicago Tribune* noted the success of Dori when writing, “you connect to these sea creatures as you rarely do with humans in big-screen adventures” (as cited in Buchanan, 80).

In *The Loop* I used method acting to create the photographs that were used for each set of emotions. With this technique I found that an interesting parallel formed between the process of animating *The Loop*, and the narrative content of the piece itself. With these methods, I had to practice the same proposed solutions that the piece suggests. A method actor in search of a spontaneous fear expression must pull from a
“catalog” of remembered feared stimuli. They must relive the moment of fear to acquire the necessary footage of the expression, an obvious form of exposure. Throughout the process they will most likely, perhaps inadvertently, habituate to the feared element and be left to search their memory for more feared items. In doing this the method actor, as is the main character of *The Loop*, is reversing the dynamic of their relationship to fear. In this case, since the actor is also the animator, the process forces a unique bond between the creator and its character.

**Part Six: The Reception**

On May 4th, 2012, from 5:30 to 8:30 pm, the opening reception for *The Loop* was hosted at the University of California Santa Cruz, Digital Arts Research Center, in room 317. A movie poster at the entrance displayed the main character peering out over a row of houses with red stars and a look of fear in her eyes. Show times were listed below. The small screening room seated approximately 30 people, and screenings were held every 20 minutes. Upon exiting, viewers were invited to take postcards that included an image from the animation, a description of the work, and a url ([joliesportfolio.com/theloop](http://joliesportfolio.com/theloop)) where they could re-watch and share the piece online.
Feedback was extremely positive. Despite the high resolution projection, viewers found the imagery of the animation to be seamless, and could not differentiate between digitally composited and fabricated elements. The audience continuously asked about the production process, with particular interest in the treatment of the eyes. Scott McCloud, a cartoonist and theorist, in a review of the show that evening commented that “god is in the details”, when describing the labor intensive process by which the eyes were composited. He explained that this extreme attention to detail is what, in the end, made the work powerful. The Loop seemed to reach its conceptual goals, by encouraging viewers to think about the ways they process emotions. Viewers discussed the content of the piece and their comments showed a strong understanding of the material. City on a Hill Press stated that, “those leaving the small viewing room leave with a deep sense of introspection” (Van Straten). By the end of the evening, 100 postcards had been distributed, and the piece continues to reach an audience online.

Having never created a puppet stop-motion animation prior to this project, I was relieved that the techniques used were formally successful and that the piece encouraged the kind of dialogue I had hoped to inspire. On a few occasions, however, viewers were hesitant to watch the piece, claiming they had “issues with anxiety”. They expressed a fear that somehow the work would cause anxious thought. I then realized that the movie poster, depicting what appeared to be a horror film, was discouraging a certain set of viewers. Since those who are sensitive to anxiety, or are diagnosed with anxiety disorders, have an invaluable role in the conversation I am trying to provoke, the media publicizing the piece will need to be less threatening for future screenings.

**Part Seven: In Conclusion**

In a society filled with products and services that promise a sense of control through risk management, The Loop offers an alternative perspective. By emphasizing our agency in the ways we respond to a perceived threat, the piece demonstrates techniques that can empower the individual. These methods can
change the dynamic of our relationships with anxiety, allowing us to regain a sense of autonomy, and perhaps disempower the aspects of our societal structure that are fueled by fear. Instead of critiquing the causes of anxiety, often beyond our control, I want to promote a discussion about individual relationships with the emotion. In order for this conversation to be productive, it must bypass existing stigmas and encourage open-minded participants. I want this dialogue to be distinct from current discourse based on empirical research, inspired instead by the unique method of analysis possible in object-based stop-motion animation.

Despite growing awareness about and increased diagnoses of anxiety disorders, stigmas about those suffering from anxiety remain prominent. Characters presented in the media are often shown as being neurotic, controlling and weak-hearted, as if their disposition is somehow attached to aspects of their personality. While we all have some relationship to anxiety, it is an unusual occurrence that someone offer insight into emotional processing based on their own challenges. I believe that valuable analysis exists when we move beyond our embarrassment of this human condition.

In making *The Loop* I asked myself this simple question: How can I instigate a conversation that encourages viewers to offer personal emotional insight? The piece attempts this in two ways. First, it attempts to inspire empathy. I used real human eyes and method acting to coax the viewer into connecting with the main character. I wanted her expressions to appear genuine and spontaneous, free of calculation, making it easier to believe in her sincerity and therefore relate to her situation. Second, it allows viewers to personalize the experience. I left the content of the fear stars undefined, hoping the viewer would relate them to their own fears and recognize the universally cyclical structure of fear and avoidance. With empathy and a scenario personalized with individual experience, I hope to bypass existing stigmas about anxiety, thus enabling an open dialogue.
Today’s technology offers increasing amounts of quantitative data and advances in methods of experimental research. The Loop, however, proposes a different form of analysis, turning instead to metaphor and dream-logic as powerful forms of reason. These processes of thought are ideal when analyzing and discussing emotional behavior, and translate naturally into animation. With the absence of language or dialogue, the piece can address a broad range of audiences. The use of ordinary objects establishes the metaphorical structure which is the heart of the storyline. Previous understandings of these objects act as a base for the viewer to build upon in discovering their new meanings as objects in motion. The complexity of these relationships can then be examined and explored based on each individuals understanding. In this way the piece becomes a map, creating relationships and visualizing concepts which may otherwise be hard to grasp. While assessments made in the disciplines of the psychological and behavioral sciences equip us with certain types of knowledge, animation combined with metaphorical thought processing offers distinct insight. By presenting a structure that can provoke thought, rather than expressing a finite conclusion, there is potential for a dynamic discourse.

I set out to make this piece wanting to stimulate discussion around these issues, by approaching the subject matter with a unique form. The medium posed many technical hurdles that at times seemed insurmountable. From fabricating the furniture, to costume design, to printing the wall paper, each detail seemed to lead to more necessary detail. Seeing the long list of credits on other stop-motion animation productions, I often questioned if I could do it alone. During post-production, after being too close to the content for too long, I began questioning if the metaphorical structure worked. I felt I was losing my ability to keep track of the piece as a whole. The first time I viewed it in entirety with another person (I find that watching my work with a new viewer is like seeing it for the first time) I was filled with a sense of relief. The meaning was there, and the image did not fall apart on screen. Now, as I release the piece to find its broader audience, I am curious to see where it ends up. I am hopeful that viewers will see
something of themselves in the work, and I look forward to hearing how they build off and share their understanding.
Work Cited


