GLITCH/GLITSH: (*MORE POWER*) *LUCKY BREAK* AND THE POSITION OF MODERN TECHNOLOGY

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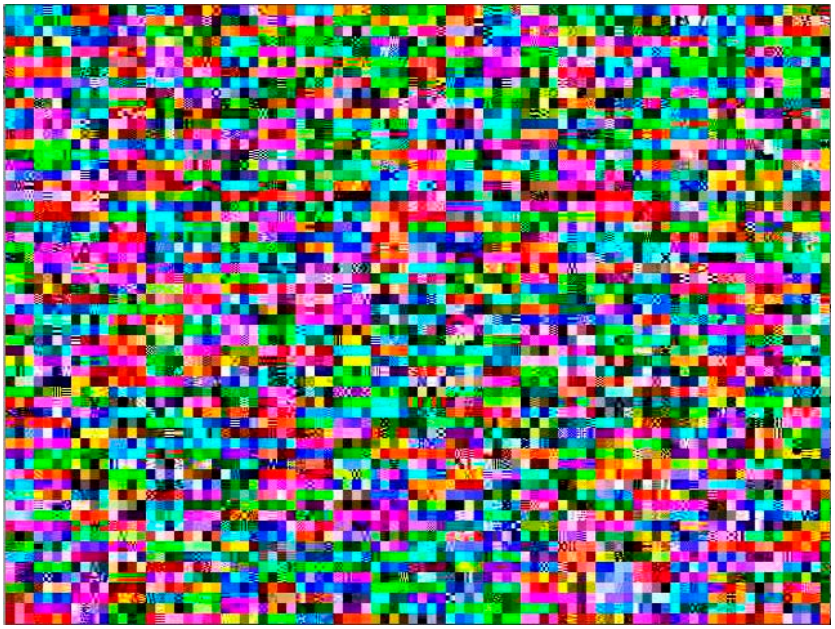

Chris Rice, *More Power (Lucky Break),* 2009
www.thechrisrice.com/morepower.html

Introduction

In this paper I examine the glitch in Chris Rice's *More Power (Lucky Break)* (2009) using the lens of Paul Virilio's terms 'vision machine' and 'accident,' and Donna Haraway's concept of the 'cyborg'. Beginning with the glitch in Rice's piece and moving on to the term's cultural and scientific meanings, a working definition of the term is sought. This definition is then applied to the varying worldviews of the aforementioned theorists, questioning how it changes or affirms their approach. Finally, this paper attempts to

refine the glitch into a final story or outlook of its own, built from its interactions with the theories of others and making the appropriate corrections to our view of the anthropological machine.

Chris Rice's *More Power (Lucky Break)*

When viewing *More Power (Lucky Break)*, one has the distinct impression that they are watching an algorithm that is impossible to comprehend play itself out. The solid grid of pixels, each containing its own vibrant color, connotes a dissection process of mechanic exactness. In select squares further pixilated symbols, Xs and stripes exist at the edge of perception, only to become clear when the video is paused. The frame-by-frame jumps in color are reminiscent of Robert Breer's equally microscopic edits in *Fist Fight* (1964), yet Rice's piece is seemingly devoid of Breer's tempo, repetition, or intention. The brief and intermittent audio, short bursts of fuzz, recall the stress of a scratched DVD. The driving force that determines the color, symbols, positioning, and timing of the piece appears unrecognizable to the human eye. While at first glance the video seems to exist within the realm of rigidly grey technology, containing the right angles and the sharp edges of a blueprint or scaffolding, relaxing one's vision leads to an expansive world of organic movement and forms not unlike those revealed in 'Magic Eye' images. Undefined clouds of light and dark seem to dance in spirals around each other; sometimes collapsing in on the center of the screen, at other times exploding to its outer edges.

Rice described the steps that led to the video's creation in an email correspondence. The video was made while working on a project that involved compiling all of the transition animations from the 90s sitcom *Home Improvement*. Rice noted that the project was meant to focus on these animations, how they structure the show, and how video technology progressed over the run of the series (which ran the entire decade of the 1990's). His process involved ripping the episodes from a DVD using Handbrake and then converting the files with MPEG Streamclip. Rice wrote:

> I converted the original mp4 file created by handbrake into a .dv file in mpeg streamclip as an experiment to see if it would load into Final Cut Pro. I also wanted to see if it would have a quicker conversion time since it usually took around two hours for a three hour DVD. The .dv file created

> was three hours of a silent black screen. I put it in the trash and hit delete- the file size was huge, so it was going to take four hours to delete and it took up most of the processing power. Because of this I quit the deletion process about 1/8th of the way through and took it out of the trash bin. I opened up the file and saw the video as it exists now. (Rice, 2009)

A variety of commonly used techniques are described here. Rice began by ripping the video and audio, a process by which content is taken from the DVD onto the hard drive. This technique is an essential one for the distribution of images, providing the Internet with countless bootleg films and television shows. Rice then attempted to convert and compress the video, another essential technique for the upload and download of images. Finally, he tried to delete the file but this procedure was also aborted. Throughout the creation of this piece these steps failed to serve their intended purpose, each leaving their mark as they worked. The algorithms of one or all of the programs were broken in such a way as to create the file we are now presented with. The culmination of the noise created by these steps is the glitch under consideration, and we will find that it intersects with and reflects upon a wide range of cultural and philosophical planes.

History and definition of the glitch

The term glitch is speculated to have come from either the Yiddish word for 'to slip,' *glitsh*, or the German word for 'to glide,' *gleiten*. The term first appeared in popular media in the 1960s and was brought into the United States' public psyche through the space program. In a series of *Time* magazine articles released in 1965, glitch is described with increasing severity as 'a spaceman's word for irritating disturbances,' 'a computer-age gremlin,' and 'the space-age devil' (Time). Subsequently, the term expanded to encompass a wide array of definitions. For example, in astronomy glitches are identified as unexpected changes in the rotation rate of usually highly predictable neutron stars (Urama, 2000). Alternately in electronic systems the term mostly references an unexpected event, a surging, a misdirecting, a severing of the flow of energy and information. An entire music scene has been built up around glitch, which emphasizes the specific and peculiar sounds created by glitches in digital audio (Goriunova & Shulgin, 2008: 110). For

video gamers a glitch can refer to an error in the simulated environment of the game. In video art there are artists who have built their career on creatively utilizing a single type of glitch in digital video (think of Takeshi Murata's use of data-moshing).

Although glitch is a widely used term, changing in specific meaning from context to context and often employed loosely, the phenomenon can be distilled into a specific set of effects. Its dual origins, in the terms *glitsh* and *gleiten* and as 'the space-age devil,' are significant. Their juxtaposition emphasizes that glitch is a contemporary reiteration of an old idea. At its root glitch is simply a form of accident, not unlike any other accident that has occurred throughout the course of history. On the other hand, the settings necessary to cause this accident have only existed for approximately the past sixty years, making it a relatively contemporary incident.

When compared to an error, a term which often arises in similar settings as glitch, important differences are highlighted. The use of the term 'error' extends back to the early 1300s. In its variety of forms error consistently represents a miscalculation. If one errs they may be wandering lost, diverging from the ideal, misdirecting, or mistaking (Oxford English Dictionary, 2009). The looseness of the term 'glitch' often allows many errors to be classified as glitches and yet the moment of the glitch is substantially different from that of an error. While a glitch may eventually be exposed as an error, at the moment of glitching the malfunction's cause is unknown. As Olga Goriunova and Alexei Shulgin write:

> Glitch is often used as a synonym for bug; but not for error. An error might produce a glitch but might not lead to a perceivable malfunction of a system. Errors in software are usually structured as: syntax errors (grammatical errors in a program), logic errors (error in an algorithm), and exception errors (arising from unexpected conditions and events). (2008: 111)

When the primary instance of the glitch occurs it is a surprise, seeming to generate from the tool and not from the programmer, whereas the error is firmly rooted in its cause. Just as the accident may eventually be mastered and manufactured as a technique, the origins of the glitch may eventually be explained, but in the original moment it is unpredictable. This mastering of glitch techniques has led to a glitch aesthetic but the original act is something different, a

moment that stands against intentions, seeming to emanate from the utilized object itself. To reiterate, the glitch is a form of accident that specifically relates to modern technology. As an accident, the glitch is unintended and a subject to chance. The glitch's root cause is uncertain as it is occurring and thus is not inherently assigned to an error in programming.

Virilio's 'vision machine'

The Accident of Art, a book comprised of a series of interviews between Sylvère Lotringer and Paul Virilio, contains two major concepts that are germane to the glitch as a functioning term, as well as to the specific glitch in *More Power (Lucky Break)*. These two concepts are the contemporary versions of the vision machine and the accident. Virilio redefines his term the vision machine to fit contemporary technology describing video as a *substitution*. He writes:

> Digital technology is a filter that is going to modify perception by means of a generalized morphing, and this in real time… we are faced with *the failure of the analogical in favor of calculation and numerology of the image.* Every sensation is going to be digitized or digitalized. We are faced with the reconstruction of the phenomenology of perception according to the machine. The vision machine is not simply the camera that replaces Monet's eye… now it's a machine that's reconstructing sensations pixel by pixel. (2005: 65-66)

The digital version of the vision machine presents the viewer with a mathematically *reconstructed* audio-visual sensation as opposed to a mechanically *reflected* one. Unlike the filmic vision, which replaced the iris of the eye with the iris of the lens, the digital vision replaces the iris of the eye with a grid of sensors, which deconstructs and then reconstructs an outside world. This reconstruction leads to a substantial change in how humans interact with the world. No longer responding to representations, but instead presentations, humanity succumbs to what Virilio calls 'newspeak of the eye' (referencing George Orwell's *1984*) and becomes 'optically correct,' as opposed to politically correct (2005: 61, 73). These terms

reference the malleability of the digital image, which can be altered to coincide with a user's or machine's outlook. The newspeak of the eye is especially potent due to digital video's operation in real time. As humans rely more on digital sources of information, and as machines allow for more agency in adjustments of this information, humans interact less with the world than they do with the machine's possibilities. Unlike film, whose photographic process creates an imprint of an actual world, tweakable through developing techniques but essentially an index of the time filmed, the digital image is infinitely malleable, convertible into an endless variety of formats, codexes, and calibrations. In an image being constructed pixel-by-pixel it is possible to enhance, alter, or delete down to the minutest detail, an unlimited ability to abstract the outputted image from its referent. For Virilio, the true content of digital video lies behind the forms represented and in the algorithms developed to display these forms.

The accident is a phenomenon that Virilio believes will take on exponential importance as technology progresses. As modern mechanics and computation allow for larger and faster possibilities, the likelihood and scale of accidents will increase. Globalization connects each part of the world with every other part and the accident, which was at one time a local incident, now takes on global ramifications (Virilio, 2005: 98-102). As Virilio writes:

> Overexposure is the live broadcast, it is real-time replacing the past, present and future. A society that heedlessly privileges the present necessarily privileges the accident... So somewhere the end of the future and the end of the past, in our societies of immediacy, of ubiquity, of instantaneity, are necessarily the advent of the accident. (2005: 109)

The use of live broadcasts emphasizes the present over the past and the future. Again we see the difference between the error with its causes and effects, and the glitch, which arises for an unexplained instant. Due to these developments in technology, the incident and the accident gain importance, replacing wars and revolutions that previously held the position in society of enacting change and enlightenment. While the accident has taken on a central position in contemporary society, Virilio notes that its power to reveal has become equally essential. Discussing the failure of art, Virilio writes,

> Failure is not a condemnation!... Failure is an accident: art has tripped on the rug… In my view, the accident is positive. Why? Because it reveals something important that we would not otherwise be able to perceive. In this respect, it is a profane miracle. (2005: 63)

The accident posses the power to reveal its own causes, which would otherwise go unnoticed. This occurs in human society as well as art, with ramifications that are dangerous and often deadly.

The glitch in Rice's video is a point of intersection between these two concepts. This specific accident reveals the process of visual reconstruction behind the digital vision machine. *Home Improvement*'s main character Tim's neutral and plaid shirts explode into the neon blues and greens of a glitched video.[1] What comes across clearly is the alienness of the glitched video when compared to the source material. No hints can be found of the softball humor or the clumsy yet innocuous *Home Improvement* family. The show's human morality play is missing here too. Despite the fact that humans constructed nearly every component that brought about this glitch, the human seems absent from the results. We move from what resembles human vision to a pure form of mechanical vision. Attempts to contextualize the glitch as a human production, benevolent or malevolent, organic or mechanic, fall short. In the age of the accident, as humans concede their perceptions and agency over to faster and stronger machines, the arena of mechanic ambivalence (at least regarding what humans think of as their own concerns) grows greater and greater. With the rise of consumer digital cameras, camera phones, surveillance cameras, and webcams this image of the world will one day be the predominant one. The flip side of this increasing plasticity of the image is a growing view of the plasticity of all natural forms. Through the striation process of pixelization, an imposed grid allows for seemingly endless alterations regardless of what is being altered. Virilio writes about the vision of machines as given to them by humans, noting that we are 'giving sight to a machine without a gaze, sight without seeing, and giving speech to an image without humans' (2005: 36).[2] As we have seen with this example, the machine has no innate compulsion towards the solidity of forms, including the human body. Whether through glitches or functioning perfectly, machines' algorithms operate consistently outside of the context humans ascribe to them or program them to imitate. The disillusion of this control, the gap

between what machines are and what humans intend them to be, is brought to the fore in *More Power (Lucky Break)*.

Etymology of the glitch

The origins of the term 'to slip' refer aptly to glitch in that these origins reenact the event of the glitch itself. In the early 1300s the verb 'to slip' contained the connotations of swiftness, silence, softness, ease, and speed (Oxford English Dictionary, 2009). It often meant escape, a silent departure. When one slipped away or slipped by, they moved unnoticed, stealthily, without drawing attention to themselves. But within a few decades the term began to change its meaning. The smoothness of the slip led to slipperiness or the loss of one's foothold; the slip's swiftness led to a loss of control and to an unwelcomed speed. This created another definition; combined with 'into', slip often meant to unwittingly fall into error or sin. In its most recent incarnation, first used in the United States during the mid-1800s, the slip up was created, meaning an outright failure in one's goals, deterioration, and a loss of control (Oxford English Dictionary, 2009).

While all these definitions are still used today, the order of their creation tells a story. The overabundance of speed and ease in the original term leads to a loss of control. The unawareness caused by the slip's stealth was brought to its logical extreme, making 'to slip' unintentional and unplanned. The trajectory here mirrors that of the accident. As Virilio writes:

> When you work on speed you work on accidents. Why? Because there is a loss of control. What is speed, what is acceleration? A loss of control and emotions just as much as a loss of transportation. A plane crashes because it is out of control and crashes more surely the faster it is going. (2005: 98)

Chris Rice's glitched video operates on the same parameters of speed and control. His cancellation of the various processes involved with converting and deleting the video clip stemmed mostly from his impatience with the normally speedy processing of his machine. These attempts to increase the speed of the project led to a loss of control, a breaking of the algorithm, the loss of his information, and a revealing of the algorithms themselves. What was once allowed to

slip by, invisibly, is now revealed through a slip up. The process of the accident is present in the glitch and the *glitsh*: moving silently and swiftly, the operator searches for more speed, leading to a loss of control and an accident that reveals the precariousness of the operator's position.

Haraway's cyborg

If the glitch reveals a disconnection in humans' relationships with machines, how then does it reflect upon our theories about this relationship? Donna Haraway's ideas have been seminal for framing our relationship with machines over the past twenty years. In *The Cyborg Manifesto* and *When Species Meet,* Haraway advocates a cyborg or composite view of the human self, a porous form, perhaps comparable to the digitally deconstructed body in Rice's work. The human as composite is Haraway's response to a tendency towards polarity inherent in many forms of identity politics. She writes:

> Cyborg imagery can suggest a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves. This is a dream not of a common language, but of a powerful infidel heteroglossia… it means both building and destroying machines, identities, categories, relationships, space stories. (Haraway, 1991: 181)

For Haraway, the dualities 'between mind and body, animal and human, organism and machine, public and private, nature and culture, men and women, primitive and civilized' are all questioned by the cyborg (1991: 163). The cyborg offers a radical political strategy for Haraway through the containment of these contradictions, leaving behind the restrictions that hampered political discourse in the past. In *When Species Meet*, Haraway places the machine on equal footing with the human, claiming machines should be put in dialogue with humans. The boundaries between companion species are torn down as the species dialogue.

Perhaps more light can be shed on the cyborg through the examination of its specific incarnation. Marilyn Figueroa[3] has had her defibrillator/pacemaker for approximately eight months now. The defibrillator portion of the device sends a shock through Figueroa's heart should it ever fail to beat, thereby jumpstarting it, while the pacemaker portion controls and monitors the rhythm of

the heartbeats. Figueroa described the feeling of having this device inside her body to me in an email:

> Imagine looking in the mirror and seeing a bulge on the left upper side of your chest that looks like the bulge that Sigourney Weaver had on her stomach just before THE ALIEN came out of her… Imagine watching a scary movie, feeling your heart racing then suddenly as if by magic the beat evens out and becomes regular. This raises a question for me about feelings. Do I feel deeply anymore? How do I feel fully if there is a machine slowing down my heartbeats, controlling its rhythm? Are feelings in the heart or in the brain? (Figueroa, 2009)

The implant has raised questions in Figueroa's mind about her own humanity. These questions of body and mind are at times very much in line with Haraway's writings. Yet the emphasis is different, far more frightening than empowering. Keeping in mind that this is only one case, Figueroa's experience seems to challenge Haraway's theories more than confirm them. The borders that are placed in question are compounded by the implant while simultaneously being blurred by them. The conflicts between mind and body, biological and mechanical, have been intensified rather than reconciled by the placing of a machine in Figueroa's body. Figueroa now must rely on the defibrillator for her very survival, forcing her to depend on the machine while it grants her longer life. At the same time the machine is now permeating what was once assumed autonomous and encased in the body. We can see this in Figueroa's questioning the origins of her feelings and the regulation of her organs. But there is a difference between the permeation of a body and the intermingling of political sensibilities. Rather than opening up a new world of civic possibilities, Figueroa sees this implant as the ultimate other, emphasizing its alienness rather than its utility while also being forced to come in contact and conduct a sort of dialogue with this other. Just as we saw with broken algorithms in *More Power (Lucky Break)*, the incomprehensibility and otherworldliness of the machine is revealed here through the intimate relationship of the cyborg, as opposed to either the silence and utility of the interface, or the dialogue of traded intentions with companion species.

The openness of both the machine and the human in Haraway's cyborg is replaced in Figueroa's experience by the conflict of closed,

separate objects, which pull away from each other even as they are part of the same body. This is another form of dialogue, less centered on expression and more akin to symbiosis. The machine and the human are constantly affecting each other even while they often fail to discuss or meet on the same terrain. Humans have been dependent and co-evolving with their inventions for a long time: in some senses we have always been cyborgs. Haraway argues that this hybrid status should be harnessed and realized so as to sidestep many intractable differences, that becoming a cyborg allows for a wider range of political actions. In this setup the machine becomes an incidental advocate for party causes. In some ways the cyborg status of the human does reflect on the political, but more by showing its limitations, the borders of the political that is often considered borderless. Whether acknowledged or not, the machine is frequently voicing its own opinions, projecting its own algorithm and facets onto the world beyond itself (including us), but this voice does not necessarily take sides within human social interaction, although it does have the power to alter the course of such conversations. Haraway's acknowledgement of the machine as an equal other strangely leads the human back to the driver's wheel. The machine becomes a tool again, capable of miraculous (in this case political) feats in the hands of the right operator, extending the malleability we have come to expect from our digital files to the concepts of human associations. But the elevation of machines to a point where they contain their own perspective should also mean allowing them to be inscrutable. The more we accept modern machines as objects onto themselves, whose specificities must be negotiated, the more our power to alter the world around us with these machines must be seen as something different from pure wish fulfillment. The moments of the glitch, when the machine stops seemingly extending our actions and asserts itself *as itself*, comes closer to an active dialogue of intentions where two differing worldviews are stated, than do any of the moments Haraway accumulates.[4]

Undoubtedly machines and humans are irreconcilably entangled with each other, tied together in a mutual process of molding. As machines accumulate speed and strength, humans will also be changing in response, but the nature of these changes remains unclear. The glitch threatens to put miscomprehension and confusion at center stage in our conversation with machines. Yet moments such as these supply knowledge not only of the internal workings of the machine but of the limits and ontology of the human as well. By establishing a line between two ways of interacting with

the world, this glitch allows us to reflect not only upon what is inherent in the machine but also upon what is inherent the human. Our attempts to respond to this alien vision of the world change how we interact with the machine and what we prize as its specific vision. In a discussion with me, Rice felt that even though he hadn't explicitly created the piece, or that the piece was not a clear manifestation of his direct intentions, he could appreciate it, calling it a 'beautiful accident.' Through moments of appreciation such as Rice's, humans can begin to actually interact with machines -- rather than simply employing them. Rice found a way to move away from the space of an operator and into the space of dialogue. As the smoothness and speed of digital data leads to an eventual glitch, we are also brought to a threshold of possible interactions with the machine. A machine that does not simply extend human faculties, or enhance our ability to manipulate the world around us, does offer many other potential benefits, not the least of these being the very thing that seems so dangerous, the marginalization of the human perspective. Illustrating that there are indeed limits to human perception forces us to be aware of an outside world that must be negotiated. We should be wary of simply ushering the glitch into our lexicon of tools, as another aesthetic technique. Yet a thoughtful interaction with the concepts it raises can point a way forward for humans and machines alike. As we push onward in our involvement with machines (and there really is no possibility of turning back), the questions of what is particular to the machine in general, and to *this* machine specifically, should be at the forefront of our thoughts. The illusion of infinite control and speed, a monopoly over the machine, simply because we constructed it, should be eschewed for a negotiation of limits. These limits must be continuously questioned and porous, as we have seen with Figueroa, but they nonetheless need to be seen as real, and acknowledged as such. By redrawing the boundary of the human a little tighter, in a way that excludes the machine, human beings are reintroduced into the world not as the masterminds of events but as subjects who are finally ready to have a conversation with the complex if opaque objects sitting before (or, alternately, sliding along with) us.

Endnotes

[1] *Home Improvement*, incidentally, is a show all about accidents, whether it is Tim's mishandling of tools or the bloopers played at the

end of each show. Although accidents hold a central position, their effects are never present -- something that is illustrated by Tim's ability to be electrocuted in one scene and kidding around with his sons in the next.

[2] While Virilio could undoubtedly be accused of anthropocentrism here, an attempt should be made to look beyond this. Although he may create an unexplained hierarchy in valuing the human gaze above the machine's sight, there are still valid differences between the two, as we have seen. Removing the human from the picture has fundamental resonances beyond, and pertaining to, human narcissism. When we consider the power it affords humans to seemingly project upon and alter the world around them, the potential to increase human narcissism beyond the point of sustainability lies in ignoring these differences. As long as we think the power to refine and change the image of the world around us is an extension of our own innate abilities, we are given free reign to mold a world that reflects the human and nothing more.

[3] Who, it should be mentioned, is my mother.

[4] This distinction can be seen in Haraway's decisive split with Deleuze and Guattari on the issue of 'becoming animal' (an argument over human-animal relationships which parallels the human machine relationships so far described) specifically regarding pets. Haraway takes offence at Deleuze and Guattari's disqualification of the owner/pet relationship from being a co-becoming, yet the two French thinkers do this precisely to avoid the type of schema we have seen arise (Haraway, 2008: 27-30). This relationship threatens to become an extension and reaffirmation of the human's worldview under the heading of consensus.

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