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Command and Control: Cybernetics and BDSM

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ABSTRACT

This paper explores correlations between restrictive interfaces in computational systems and restrictive interfaces in BDSM (Bondage & Discipline/Dominance & Submission/Sadism & Masochism) culture. Novel technologies often serve as pet fetish objects, but how do technologies perform as subjects in fetish culture? When digital technologies appear to us as objects, they present us with an illusion of mastery. In reality, technologies are active subjects and we, their "users," must bend to their requirements. In gaming scholarship, the process by which users must first internalize machinic logic in order to win mastery over a machine is termed learning the algorithm. Indeed, in cybernetics command and control through communication has much in common with sexual power dynamics. Both involve getting a partner to do what one wants and to not do what one doesn't want. The dominant consumerist relationship with technologies is already sexually charged. But in order to imagine an alternative, it becomes crucial to ask where power accumulates and how power functions in our interactions with devices. In a given moment of Human-Computer Interaction, who or what is a master and who or what is a slave?

Categories and Subject Descriptors

H.1.2 [Information Systems]: User/Machine Systems – human factors, software psychology.

General Terms

Algorithms, Performance, Design, Economics, Human Factors, Theory.

Keywords

Cybernetics, BDSM, Fetishism, Sadomasochism, Human-Computer Interaction, Sex, Posthumanism.

1. INTRODUCTION

This paper argues that sexual practices (of any flavor) and cybernetic feedback systems are two kinds of communicative interfaces. In the interest of making this comparison most apparent, I examine the extreme case of BDSM practices, and fetishwear in which the "interface" is most explicitly foregrounded in visual form. In my opinion, these two communicative interfaces, BDSM and Cybernetics, "make sense" together and are worth investigating comparatively because both structure relationships through interchanges of power, and do so via techniques of command and control.



Figure 1. 3G56k, Installation view.¹



Figure 2. 3G56k, Still from video loop.²

I began researching BDSM while working on 3G56k, an interactive technology installation which stages an illicit, intergenerational love affair between a giant iPhone and a tower computer's dial-up modem. The project reached a stage where it

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¹ *3G56k.* Katherine Behar, 2009. Installation view, with performer Jessi Scopp. Photograph: Monica Ruzansky, 2009. Courtesy of the Artist.

² 3G56k. Katherine Behar, 2009. Video Still. Courtesy of the Artist.

became necessary to decide how "giving" an interface the iPhone should have. Being new to interaction design,

I approached this question as a costume designer. The question of interface quickly became a question of character when I noticed that my own iPhone – a sleek, opaque, black object that comes alive with the lightest caress – was already clad in black leather: my iPhone dresses in fetishwear. It became clear that the touchscreen and the tower – already an intergenerational romance – were in a BDSM relationship.

In researching fetishwear, I encountered numerous images depicting what as a costume designer, I view as highly restrictive interfaces for the body:



Figure 3. BDSM Restrictive interface.³

The visual culture of BDSM is full of such images. If we understand a body as an interactive interface, fetishwear is a modification of the body *at its surface* – that is *at its interface* – to severely proscribe and delimit the range of interaction, and the code of activities that can be performed at that interface.

BDSM's visual culture includes bondage images in which willful bodily movements must negotiate against or coordinate with restriction or restraint. These images deserve comment in another paper, but what I find compelling about fetishwear imagery is its attention to surface, which has dual significance. First, in contrast to bondage images showing the subject's will curtailed,

fetishwear's attention to surface objectifies the body, in effect nullifying the subject's will. Like cybernetics, which theorists like N. Katherine Hayles associate with a distributed alternative to centralized, Humanist subjecthood, BDSM runs counter to Enlightenment individualism.⁴ BDSM subjects are parts in a larger system. Fetish logic synecdochically repurposes subjects as parts, i.e. fetishized body parts, which fetishwear in turn codes for a given interaction. Second, fetishwear's attention to surface highlights the skin as a point of contact and an interface for interaction. In fetishizing surface, these images show how the body-as-interface can be hardcoded for a specific range of behaviors.

Thus, the visual culture of BDSM places emphasis on impenetrable surfaces and on highly controlled, specifically regulated articulations of penetrability. The *off-limits* and the *singular exception to the off-limits* are binary terms rendered overt in pornographic hoods, blindfolds and gags, or trickled down in street fashion's zippers, cut-outs, or laced corsets and boots, or, perhaps most profoundly, in this striking example:



Figure 4. BDSM Restrictive interface.⁵

³ Image downloaded from twistmyrubberarm.com, accessed July 26, 2009.

⁴ Anne McClintock puts this succinctly: "The bondage fetish performs identity and power as twined in interdependence, and rebuts the Enlightenment vision of the solitary and self-generating individual." [15: 87] See also Hayles on post-humanism [9], McClintock on the relation of BDSM to "natural orders" [15] and Beckmann on BDSM and Foucault's "practice of the self" and "care of the self." [1]

⁵ Image downloaded from twistmyrubberarm.com, accessed July 26, 2009.

This is a hardware mod. Here, fetishwear becomes a prosthetic skin that "augments" the body through subtraction. The resulting interface limits the range of action — by literally sealing off alternatives — thereby prescribing or *coding* an explicitly specified mode of behavior. Given two "unmodified" bodies, the combinatorial possibilities for interactions are seemingly limitless, whereas this "hack" allows pretty much one and only one kind of interaction to take place.

So, having recognized this as an interface, the question becomes, what happens at this interface? What is the nature of the interaction that this interface enables? I argue that the relationship we see here – the BDSM relationship – is a cybernetic one. This picture shows a communicative interface that functions through command and control.

What is significant is not simply to say that BDSM is cybernetic, but rather to read these two technologies, BDSM and cybernetics, back and forth against each other, that is, through the feedback logic of interchangeability they embody. In doing so, surprising aspects of both practices are illuminated. We find, for example, that insofar as BDSM employs strictly articulated regulations of penetrability, the same can be said for digital communications technologies which enforce strict protocols (VoIP, TCP/IP, SMTP, etc.) for the passage of information. [6, 2] Again, the common ground these practices share is "command and control." To see how each implements "command and control" requires a foray into the histories through which they were defined.

2. BDSM

BDSM is an amalgamation of practices with shifty initials. It encompasses Bondage & Discipline, Dominance & Submission, Sadism & Masochism or Sadomasochism, and Master & Slave relationships. There is considerable overlap between these pairings and partnerships, but all involve "command and control" and as we will see, in practice, all adhere in some relationship to fetishism.

The terms "sadism" and "masochism" were invented by sexologist Richard von Krafft-Ebing in his *Psychopathia Sexualis* of 1885. Krafft-Ebing distinguished two forms of *algolagnia* — sexual pleasure resulting from experiencing or inflicting pain — and named each after a figure from literature: sadism, he named for the Marquis de Sade, and he gave masochism its name for Leopold von Sacher-Masoch. Krafft-Ebing defined the former in terms of cruelty and the latter in terms of the passive endurance of cruelty. He considered each to be the complementary opposite of the other. In his words:

"Masochism is the opposite of sadism. While the latter is the desire to cause pain and use force, the former is the wish to suffer pain and be subjected to force." [13: 27]

⁶ In this paper, I use the term "BDSM" broadly and inclusively. The term "sadomasochism" refers to the sub-practice within BDSM; "BDSM" refers to the wider set of practices, including sadomasochism. (See comments, notwithstanding, on Deleuze's

sadomasochism. (See comments, notwithstanding, on Deleuze's refutation of the term "sadomasochism," below.) Following Weinberg and Kamel, I use "S&M" or "S/M" to denote sadomasochism. "Master/Slave" practices are recurrent throughout BDSM, appearing in sadomasochism, Dominance & Submission, and Bondage & Discipline.

Both Krafft-Ebing and his contemporary, Freud, explained sadism and masochism in terms of a perversion of the "natural" biological impulses of the sexes. For Freud and Krafft-Ebing, sadism amounts to an exaggeration of the natural tendency toward aggression in males, whereas masochism is an exaggeration of females' natural tendency toward submissiveness. By extension, masochism in males or sadism in females is a more extreme perversion, insofar as it further perverts physiological nature.

In 1903, Havelock Ellis offered a significant revision to Krafft-Ebing's and Freud's definitions by suggesting that love, not cruelty, was the necessary motivator for masochists' and sadists' desires to experience and inflict pain (and hence that pain was a secondary consequence, and emotion pain's primary cause). However, not until the "sexual revolution" of the 1960s, following the watershed Kinsey Reports and the introduction of the first oral contraceptives, did Krafft-Ebing's and Freud's legacy of normative biological determinism come under serious scrutiny with regard to these sexual practices. In a 1969 article called "Fetishism and Sadomasochism," Paul H. Gebhard (who replaced Alfred Kinsey, becoming the second director of the Kinsey Institute) argued that sadomasochism must be understood in a social, not a physiological framework, i.e., as a cultural, not a natural system.

I argue that Gebhard's reasoning, which draws in large part on the observation that "the average sadomasochistic session is usually scripted," [7: 78] allows for the inclusion of other unnatural systems. As Anne McClintock observes, "the outrage of S/M is precisely its hostility to the idea of nature as the custodian of social power." For McClintock, "S/M *performs* social power as both contingent and constitutive, as sanctioned neither by fate nor by God, but by social convention and invention, and thus as open to historical change." [15: 90-91] I contend that the sadomasochistic dynamic, as a historical set of scripted behaviors, can thus be opened up to, and even integrated with, machinic systems.

3. ANTI-ANTHROPOCENTRIC SEX

In this way, BDSM points to a non-anthropomorphic notion of self – a self that exists not as autonomy and interiority, but as interdependence and surface. Fetishwear highlights the surface of the self, refusing any transcendent interior, so that sex, liberalism's last refuge for human nature, no longer revolves around autonomy, or autonomy's mouthpiece, expression. BDSM's self denies anthropocentric privilege. Set forth by fetishwear as a bounded object defined by and *as* its exterior, such a self is equal parts object and subject – a black box self ripe for partnering with autonomous machines.

Summarizing Gebhard's argument, Thomas S. Weinberg and G. W. Levi Kamel could be writing word for word about computer systems that operate through digital code:

"First [Gebhard] discussed the prevalence of S&M in *literate societies*. Second, he noted the *symbolic nature* of S&M. Third, he implicitly couched sadomasochism in terms associated with *interaction* [...] *and context*. Finally, [... he] conceptualized S&M activity as *scripted behavior*." [16: 21]⁷

Many cultural practices could be characterized thusly, but the authors' reading of BDSM through Goffman's frame analysis, shows BDSM to be especially analogous to code. Goffman's

And so, the history of reckoning with BDSM deposits us here, in a grey zone of permissibility and interchangeability, where it becomes possible to break down boundaries between living and nonliving systems, to convert hierarchies between "masters" and "slaves" — or, put differently, between users and tools. It should come as no surprise that the history of cybernetics leads us to much the same place.

4. CYBERNETICS

Invented in the years ending and following World War II by a group of scientists including luminaries like Norbert Wiener and John von Neumann, cybernetics is significant both for pioneering the feedback logic from which innumerable, diverse technologies have since developed – ranging from real time combat missile systems to video gaming technology to surgical implants – and for its radical reconceptualization of human-machine compatibility – an understanding of the brain as a computer that became the basis both for von Neumann architecture, the stored-program design used in all digital computers today, and for the field of cognitive science, the contemporary study of the mind.

Whereas we trace the etymology of BDSM to literature, the term "cybernetics" has its root in guidance systems. Wiener "derived [the name] from the Greek word *kubernétés*, or 'steersman,' the same Greek word from which we eventually derive our word 'governor." [18: 15]

Indeed, cybernetics began taking shape under a military R&D initiative to build real time guidance systems. During WWII, the German Air Force's technical advances necessitated anti-aircraft devices that could statistically predict the future position of an attacking plane. Major cybernetic principles, like feedback and oscillation, were explored in designing a "fire-control apparatus." The resulting system was not fully automated; in Wiener's words, it usually incorporated "a human gun-pointer or a gun-trainer or both coupled into the fire-control system, and acting as an essential part of it." [17: 6] These early cybernetic couplings united a human operator, with idiosyncratic behaviors and proclivities, with a machine programmed to anticipate those behaviors and evaluate them against dynamic environmental conditions, e.g., an attacking human pilot operating a plane with variable speed and position.

To link humans and machines in an integrated communications system, cybernetics had first to conceive of both as being "coded" in common "language," a binary language in which terms are exchanged among neurons as stimulus and response, among bits as ones and zeros, and between the two as command and control. Thus, cybernetics' view of communication and of the relationship between humans and machines seems paradoxical. It is simultaneously egalitarian and thoroughly infused with issues of power in language. BDSM echoes this paradoxical quality in its relationship between pleasure and pain. Commanding and controlling is funny that way.

methodology exposes layers of subcultural meaning, convention, and initiation, a structure that evokes code's levels of abstraction as theorized in critical code studies.

5. COMMANDING AND CONTROLLING

We can describe cybernetics as the science of command and control through communication, but to get to the heart of the issue, I prefer the characterization offered by a scientist working at RAND alongside Paul Baran in the 1960s. Quoted by Katie Hafner and Matthew Lyon, an anonymous analyst with an undeniable gift for layman's terminology explained that:

"the 'command' part of the equation meant [...] being able 'to get them to do what you want them to do,' [...] 'Control' meant just the opposite-'getting them *not* to do what you don't want them to.'" [8: 54-55]

"Command and control" is getting someone (or something) to do what you want AND to NOT do what you DON'T want. To me, that sounds uncannily like an intimate relationship, especially a sexual one.

6. DEMONS AND OTHER GIMPS

Wiener's classic example of a feedback device, (which he calls, not insignificantly, a "servomechanism") is a thermostat, which continually cycles through active and passive roles. The thermostat servomechanism passively monitors its environment, compares its current and desired states, actively effects a physical change to calibrate its current state with deference to its desired state, and repeats the process ad infinitum. According to Wiener, personified, the servomechanism is the Maxwell's demon, a hypothetical demon who finds itself positioned at an orifice.

In Maxwell's thought experiment, the demon is a gatekeeper between two chambers filled with a gas. It evaluates the velocity of particles approaching the gate, opening it to allow fast particles to move in one direction, but closing it when slow particles approach it from the other direction, thereby orchestrating a decrease in entropy. [17: 57] Setting aside, for the moment, the question of whether the Maxwell's demon encounters its orifice from the bottom or the top, we must note that the demon is an algorithm. As a figure in or of code, this algorithmic demon complies with Gebhard's four features of sadomasochism. Algorithms, like BDSM, emerge in literate societies, are symbolic in nature, hinge on interaction and context, and are, of course, scripted.

7. BOTTOMS AND TOPS

There is an obvious relationship between the "contracted" or "coded" servitude of a servomechanism and the servitude of a slave in BDSM, but this begs subtler questions. To best consider the nature of power dynamics in cybernetics, we should examine the reality of servitude in BDSM. As McClintock contends, "[t]o argue that in consensual S/M the 'dominant' has power, and the slave has not, is to read theater for reality." [15:87]

Wiener's Cybernetics: Control and Communication in the Animal and the Machine, lays out ideas which are elaborated in military usage as "Command, Control, and Communication" (C3) systems. A key principle for C3 systems is that command and control requires a two-way communications system for feedback. Related military systems include Command, Control, Communications, and Computers (C4) and Command, Control, Communications, Computers, and Intelligence (C41).

In practice, S/M interactions are planned out in advance by the participants. A stage is set, props are prepared, roles are rehearsed, and lines are learned. These interactions are called "scenarios" or "scenes" because they are *literature* — although it is hard to imagine that such was Krafft-Ebing's intention in selecting literary namesakes.

There are many examples of how S/M interactions are coded through and through with symbols and scripts; a full discussion is beyond the scope of this paper. Here, I offer one example of a preestablished code as it pertains directly to power relations and communication. This BDSM code functions like a Force Quit command.

John Alan Lee explains that, in a scene, "[e]ither partner may suggest a signal word to be used during the scenario to indicate that the slave's limits have been reached." [14: 186] McClintock concurs, "[c]lients and dominas typically agree on key words, which the 'bottom' uses to intensify, change, or stop the action. Many S/M fetishists claim that it is thus the 'bottom' who is in control." [15: 111]

The suggestion here is that *coded into* the performance codes or protocols of S/M is a mitigation of risk for the passive participant. True to Hegel's analysis, the slave has true power, not the master. The bottom upholds the top. [10]

Read through the politics encoding technosocial relations between users and tools, it would seem that tools, machines, robots (etymologically meaning "forced labor"), etc. may command more than they are controlled. To be clear, this is neither a rallying cry for the bottoms of the world to unite, nor a dystopic warning against a future where humans are controlled by machines; the only warning I suggest is against thinking of user/tool relations or any relations in communicative systems, as fixedly hierarchical. They are rather a matter of feedback – as are roles in BDSM. McClintock writes, "The economy of S/M is the economy of conversion: slave to master, adult to baby, pain to pleasure, man to woman, and back again." [15: 87]

8. HOSTAGE SITUATION

As Hegel would have it, "Lordship and Bondage" are at stake with regard to self-consciousness, so we return to the troublesome question of selfhood. Clearly, it is simplistic to say there is a similarity between the BDSM relationship and the cybernetic one; these relationships are critically different too. While there are two selves in BDSM, cybernetics' user/tool implementation means there can be just one. In BDSM, the bottom can call "Force Quit," but the tool in a user/tool coupling can't decide it wants out. How, then, does a cybernetic Hegelian bottom "steer" its top?

Gaming scholars Ted Friedman and Alex Galloway describe the process by which users must first internalize machinic logic in order to win mastery over a machine as *learning the algorithm*. [4, 5: 90-92] Although technologies appear as objects, presenting humans with the impression of mastery, these tools are also active subjects, subtly but formidably coercing their users, to bend to their requirements. Friedman claims that computer games – and I argue all HCI – "teach structures of thought," indeed

"reorganiz[ing] perception [...] by getting [the user] to internalize the logic of the program." In the tightest cybernetic couplings, "eventually, [human] decisions become intuitive, as smooth and rapid-fire as the computer's own machinations." [4]

Friedman uses the term "cyborg consciousness" to denote the "deeper level of collaboration" underlying the seemingly adversarial relationship between a successful gamer and the system's AI. "Thinking like a computer," he writes, "means thinking along with the computer, becoming an extension of the computer's processes." [4] Although conventional wisdom holds that users control their tools, in a very real sense, the self-same intimacy with which an expert wields a tool marks his deference and submission to it. The user commands (gets the tool to do what he wants) but the tool controls (gets the user *not* to do what she *doesn't* want – i.e., by holding function hostage, gets the user not to use her in any other way).

We see through to literary artifice when a BDSM bottom consents to be dominated, but the user/tool relationship is guided by another dynamic. The power tops who are power users are coerced by their tools.

Thus, from the point of view of the *selves* involved – two in BDSM, versus one for cybernetics, BDSM and cybernetic relationships appear incommensurate, but seen as *interfaces* – the surface of the self, BDSM and cybernetics are conspicuously alike. Like the fetishwear hardware mod, computer systems allow one and only one form of interaction. Not only is there only one *permissible* way to engage the interface, there is only one *functional* way the interface allows the tool to be used. Staring at a mouse or talking to a keyboard won't work. The user is in a hostage situation with no choice but to learn the algorithm – by heart.

9. CONTRACTS AND SPECIFICATIONS

Whether by consent or coercion, if the bottom's fine ass holds the top aloft, what upholds the entire situation is the contract. Deleuze – arguing against the notion of sadomasochism as a synthetic clinical unit, and for that matter against the possibility of convertibility between sadist and masochist roles (he would clearly object to this paper) – notes that one of the differences in kind between sadism and masochism is that the former is founded on institutions, whereas the latter is founded on the contract.

Deleuze recalls the detailed contracts that Masoch drew up with his partners delimiting the nature, technicalities, and scope of their interactions. If Masoch, Wanda, and Ludwig were a software development team, they would call their contract a specification. It lays out the protocol, explaining how – and only how – their program works. Deleuze explains, "the function of the contract is to lay down the law." [3: 76] Thus law defines what fetishwear physicalizes: an interface to the off-limits and its exception.

Both institutions and contracts command and control; both define relationships between bottoms and tops. The significant difference that Deleuze identifies between the contract, upon which all masochistic relationships are founded, and the institution, upon which all sadistic relationships rely, is that the contract is a more provisional, temporary, even *local* coalition on the level of individuals, while an institution is a permanent, *global* practice on the level of organizations, or even societies, without regard for constituents.

⁹ This notwithstanding, it is an aim of this paper to work toward the point where we can think of both kinds of relationships as being between two subject-objects or two object-subjects.

In Deleuze's words, "the contract presupposes in principle [...] free consent [... and] reciprocal rights [, ... it] cannot affect a third party [, ... and it is] valid for a limited time [whereas institutions require a] long-term state of affairs [, ... are] both involuntary and inalienable [, ... and take] effect against a third party." Not wishing to confuse multiple meanings of bottom and top, we can say that contracts command and control through a bottom-up arrangement, and institutions command and control through a top-down arrangement.

Deleuze insists that such distinctions indicate that sadism and masochism are so radically different that any interchange between the two is impossible – a misdiagnosis or at very least a misnomer. The term "sadomasochism," he says, is a "semiological howler." [3: 134] Nonetheless, numerous accounts from practitioners indicate that feedback and conversion are critical parts of their experiences. For example, S/M's "Golden Rule" states that a good top must begin as a bottom. [1: 203, 14: 186]

Echoing Ellis' evocation of love, the reason for the Golden Rule is *sympathy*. Sympathy provides the cybernetic feedback loop uniting top and bottom. According to Wiener, feedback is negative, that is, it is a response. ¹⁰ And clearly, intimate, real time responsiveness is critical to establishing a feedback loop, in BDSM or any cybernetic practice — any practice that, contractually, draws disparate parts into an integrated feedback mechanism. It may be a "semiological howler," but how else to explain this practitioner's statement: "So it must be like a unit." [1: 204]

10. INDIVIDUALS, COMPLEMENTS, UNEVEN UNITS

Adorno and Horkheimer see Sade as taking the Enlightenment at its word, pushing rationality past the hypocrisy of Kantian morality. [12] Connecting Sade and Nietzsche, they show Sade's anarchic perversity as an extreme form of Enlightenment values: an overgrowth of reason, science, and above all individualism. The libertine is an *übermensch*, making Sade and humanism sibling heirs to the individualist philosophy that posthumanism and fetishism challenge.

So what or who is at stake in command and control? We are partial to not considering ourselves partially. But as discussed above, thinking cybernetics and BDSM mutually, or in each other's terms, provides an opportunity to displace this bias. In either of these fetishistic systems, we are no longer holistic individuals — no longer volumetric individuals with autonomous interiors—but rather parts composing the surface of a larger unit.

I suspect that the howler Deleuze resists is the idea of complementarity that originated in Krafft-Ebing's claim, "Masochism is the opposite of sadism." But what cybernetics shows us about S/M and BDSM and all such practices is this: Oppositional complementarity is not the way to "be like a unit." McClintock's notion of the "economy of conversion" in S/M

requires a unit that is *not complementary*, but rather *uneven*. BDSM and cybernetics rely on leverage and feedback, not fairness and reciprocity. They are not a matter of equivalence, but of approximate response.

This idea is part and parcel for cybernetics, in theory as well as practice. Wiener lays the point out clearly in his chapter on the sea change from the Newtonian (reversible – i.e. equivalent / exchangeable) time of mechanics to the Bergsonian (probabilistic – i.e. approximate / convertible) time of cybernetics and digital systems. But in this interval another idea about what it is to *be* a part or *in* a parcel surfaces as an unexpected precedent for this touchstone concept in cybernetics. The idea comes from fetishism.

11. USING (ONE AND ONLY)

Interpreting the writings of Georges Bataille, Denis Hollier characterizes the fetish as *use-value*. [11: 11] This fetish stands in every way opposed to the Marxist fetish, the commodity that is pure exchange value. The Marxist fetish can be saved, accumulated, and hoarded because it takes its identity from its exchangeability – the premise of equivalence – in even, smooth spaces where capital flows. In contrast, the Bataillian fetish must be spent, used up, and wasted. This fetish can *only* be used precisely because it is singular; it is *not* the same. Use-value is unevenness, marking an economy of conversion or expenditure. What can be converted when both parties are the same?

In this model for fetishism, there is a premonition of a cybernetic coupling. Difference, the *inequality* between partners, makes the system go. A fetishistic communication system presupposes incommensurability between partners: a power differential. In command and control, the difference between partners is information, "the difference that makes a difference," in the words of Gregory Bateson, another cybernetics pioneer.

12. CONCLUSION

So here we find ourselves, in need of a conclusion, and left holding *information* as the final key term. Hollier reminds us that the fetish, "like Sartre's bananas," [11: 11] has to be used, consumed on the spot. So rather than trying to collect takeaway points, let's try to put the foregoing to use.

Let's return to the figure of the Maxwell's Demon, an anthropomorphic algorithm. As code, the demon embodies the feedback logic and scriptedness that BDSM and cybernetics share. Because the demon figures code fluently in both practices, making BDSM and cybernetics interchangeable, the demon is our code for the economy of conversion. It makes uneven units; it is making one now.

As our fetish, the demon can be used to teach us to override differences based on biological or "natural" categories. This interchangeability (not exchangeability) allows natural and unnatural systems, or living and nonliving systems, to coexist in a BDSM or cybernetic coupling. In the economy of conversion, the different, the living and nonliving, can "be like a unit."

In this way, following the scripts of cybernetics and BDSM through to the end permits an insight into ourselves, or at least allows us to ask a question, an important one to pose in the contemporary moment, infused as it is, with command and control: What is the object-quality to be found in the living, and what is the subject-quality to be found in the non-living?

¹⁰ "Notice that the feedback tends to oppose what the system is already doing, and is thus negative." [17: 97]

¹¹ BDSM's sex is also anti-anthropomorphic in the fascistic or Futurist sense of humans acting like machines, as when Sade's Juliette approaches sex with the cold rationality of a Sysadmin.

13. ACKNOWLEDGMENTS

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