Strange Attractors: Queers, Chaos, and Evolution

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ABSTRACT

A new definition of the queer as 'the strange attractor' is developed using chaos theory. Queer-as-chaos is situated within the broad field of systems theory as it has been developed in evolutionary biology, mathematics, ecology and social science. Queer-as-chaos is examined as a disruptive but evolutionary force that transforms cultures, social institutions, power structures and local / global systems. The concept is explored through embodiment, relationships, language, performance, aesthetics, politics, and other strains of queer theory. Finally, queer-as-chaos is mapped onto the realm of on-going political movements to discern a queer politics of chaos.

> *The universe is not only queerer than we suppose, but queerer than we can suppose*
> > J.B.S. Haldane, British geneticist (1892-1964)

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1.0

Chaos theory emerged in the realm of public science discourse when James Gleick published his book *Chaos: Making a New Science* in 1987. Developed in the fields of mathematics, physics, chemistry, evolutionary biology and ecology, the science of chaos has begun to inform the social sciences. In the last ten years, chaos theory has invaded the field of sociology through social systems theory. To my knowledge, it has not been applied extensively in the field of cultural studies, and in particular, queer theory. Seeking to liberate the definition of queer from every definition that has been proffered thus far, I discovered a new theory of the queer in the science of chaos theory.

Queer-as-chaos is an intolerable openness to the unknown, the indeterminate, the not yet, so disruptive in its manifestation that there is at first no way to frame or categorize its appearance. In this paper, I set aside many of the forgoing strains of queer theory in order to explore queer-as-chaos. For this reason, this will be a largely theoretical exploration. Future explorations of this phenomenon may reintegrate this quality back into strains of discourse that have constituted queer theory thus far. But for this venture, I want to allow for queer-as-chaos to disrupt our routine perceptions. I contend that 'gay' no longer has any singular bearing on the definition of what is 'queer.' The two concepts have diverged, they have become culturally and historically delinked. In the language of chaos, they have bifurcated, and queer has evolved into its own system, gone its own evolutionary way. Queers have become a separate [un]identity, and 'the queer' has become a separate cultural phenomenon distinct from 'gay'. This exploration of queer-as-chaos traces the emergence of 'queer' from specific embodiments and identities to its unfolding as a broader evolutionary force that transforms cultural and social systems.

Sociology has only just emerged from an eighteenth century Newtonian linear model of singular cause, singular effect. Foucault was perhaps the first social historian that I recognized as 'post-Newtonian'. His model of power showed that power is *polyvalent* and flows in multiple directions, between subjector and subjected, in a field of power that is both constituting and constraining. Foucault's theories of power would be akin to Einstein's theory of relativity. But that was only one step away from Newton. The next step away from

Newton's linear model, into something like quantum physics for the social sciences, lies in the ecological version of chaos theory. In this paper, I employ chaos theory, a branch of mathematics and ecological systems theory, as a heuristic devise that not only explains the evolution of biological systems, but describes the phenomenon of cultural divergence and transformation.

First I will discuss 'queer' as a phenomenon that can be illuminated by systems theory, evolution, and chaos theory, particularly the mathematical figure of the *strange attractor.* At the same time, I will use queer theory to 'queer' each of these sciences, to reveal the queer dynamics of chaotically evolving systems. Having established a theory of queer-as-chaos, I will explore the chaotic dynamics of the queer as desire, performance, language and aesthetics. I will examine the queer performatives of individuals whose lives were enmeshed in systems of power, and who used the queer-as-chaos to protest, challenge and disrupt systems of power. In particular, I will show that queer-as chaos works to destabilize the hetero- and homo-normative as systems of controlled reproduction. Finally, I will deploy queer-as-chaos as a political strategy that thrives in destabilized conditions and has the capacity to transform social systems.

1.1
ABNORMAL SCIENCE: QUEERING SYSTEMS THEORY

Chaos theory proposes that the same processes that produce chaos also produce structure. Non-linear mathematical systems that produce chaotic results by a process of continuous iteration also 'settle out' periodically and produce regular patterns. Likewise, systems that produce regular patterns also produce chaos, and this is especially observable in the process of evolution. Living organisms reproduce themselves with a high degree of accuracy, but they also produce errors or mutations. Mutations indicate a capacity for interaction with the environment, and this produces the possibility for structural change. As living organisms encounter novel species and environments, interaction with stressful conditions can provoke new biochemical interactions, patterns and structures. Were it not for those mutations, evolution would not be

possible, nor would there be the kind of immeasurable diversity of species that exists on this planet.

Social systems likewise replicate themselves through biological and cultural reproduction. The question I ask is: how do social systems which reproduce their self-same structures through highly controlled processes of replication also produce anomalies? More to the point, how does a predominantly hetero-normative society also produce the queer?

Niklas Luhmann (1995), in his theory of social systems, proposed that all systems evolve as a way of differentiating from their environments. Complex societies emerge as a distinct entity apart from any one individual. Individuals, which he called 'psychic systems', are never wholly integrated into social systems; they are at best only partially integrated. Social systems and psychic systems rely on each other for continued self-replication and functioning; they interact and co-evolve with each other. But there is always something about individuals which makes them different from social systems, at local and wider scales, different enough that individuals have the capacity to evolve as their own unique entity or 'system'. We can observe things about social systems because we are both 'within' and 'outside' of social systems as 'partial observers.' Interaction with divergent others who are situated in different social positions allows us to make observations about the social system as we interact with them. In the course of individual development, we observe things about ourselves that are similar and different from our peers. We can choose to augment those differences through positive feedbacks, or succumb to negative feedbacks that squelch differences and reinforce the normative. The 'queer' is an intentional resistance to hetero-normativity, an augmentation of difference that further differentiates us from the social system. *Queer-as-chaos* is the eruption of that difference into hetero-normative systems to the extent that it destabilizes the system's mechanisms of controlled replication.

Chaos is not normal science; it's the science of the abnormal, a science of disruption and rapid evolution. Likewise, queer theory is not a theory of the normal, the hetero-normative or even the homo-normative. Queer-as-chaos is abnormal social science, the anthropology of the strange. Queer-as-chaos is a process of estrangement, disruption, the fantastic, the appearance of the at-first unknown and unintelligible. As such it triggers a 'positive feedback' in

systems in that existing systems must develop new perceptions, codes and behaviors in order to comprehend and respond to queer-as-chaos. The systemic process which produces structure also produces chaos, so that chaos, or the queer, appears periodically in every system. At its appearance, however, the queer appears *non-functional* to the system; it disrupts homoeostasis, it disturbs and unbalances systems. By contrast, the homo-normative triggers a negative feedback response from the system, which affirms systems that are already operative; it is the already functional. Homo-normativity is homoeostasis. The queer that is new, that is not a ritualized repetition of queer phenomena of the past, has the capacity to disturb, up-heave and even collapse old systems, and provoke new social structures that change the trajectory of social and cultural life.

1.2
QUEERING EVOLUTION

Chaos is a dynamic feature of natural systems on the planet; all natural systems evolve through chaotic processes. Thus, chaos theory can be explored as the nexus of the queer and the natural, where we can begin to uncover the effects of the queer in the natural world. To that end I propose queer-as-chaos as a foundational concept for a queer ecology. Natural systems evolve in chaotic ways when they exhibit unpredictable, non-linear dynamics. Chaotic evolution is an unpredictable process that is nonetheless wholly determined by known variables, yet no one can predict at the start of the process which variables will form the evolutionary pathway. Chaotic evolution begins with a large number of highly diverse elements, from which the process of evolutionary selection begins. Chaotic evolution is sensitive to initial conditions; small variations at the beginning of a chaotic pathway lead to exponentially large differences in the mature state of the system. Chaotic evolution proceeds by 'nearest neighbor' rules; as species interact at the local level, they co-evolve patterns that together influence the trajectory of the whole system. In a process of chaotic natural selection, no one knows what the next emergent stage will be, and no one can predict the mature state of the system (Sapolsky, 2010).

All species evolve in response to environmental conditions, be they natural or culturally produced

environments. As those conditions change, species must adapt, both at an individual and population levels. But humans are more tightly coupled to the human cultural environment than the natural environment. Anthropologists tell us that the human species is evolving more rapidly now, in the physical sense, than at any point in its evolutionary history. Yet much of the adaptation that humans undergo is driven by culture; we adapt primarily to culture, not nature. In short, I propose that if the human population is evolving through adaptation to a culturally constructed environment, then queers change the cultural environment to which they are adapting.

Social historian John Padgett cites research that supports a cooperative path to evolution via reproductive networks. He describes auto-catalysis as the first process that produced life-forms that evolved into closed cellular systems. Padgett describes how this happens using network theory as a model of co-evolution. As each system builds itself, it also influences the environment which in turn helps to evolve all other systems; and in turn, its auto-poiesis is influenced by the conditions in the environment that it is adapting to—ergo, co-evolution. Padgett cites Manfred Eigen's research (1992) on auto-catalytic evolution in viruses and primitive species. While self-replication, or auto-poiesis, occurs through DNA replication, RNA processes also rely on an influx of nutrients and enzymes from other organisms to aid in replication of nucleotides. Thus, the chemical outputs of some organisms, produced by their auto-poiesis, are used by other organisms to facilitate their own self-reproduction (Padgett, 2011: 26). This process is what Padgett calls a "reproductive network."

Eigen's studies (1992) showed that co-evolution occurs between closer species, akin to the 'strangely familiar.' His studies on viruses showed that species using the enzymes produced by other nearby species enabled primitive life forms to generate longer RNA nucleopeptides, the building blocks for more complex life forms, and eventually, complete cell systems. But note that this 'queer' replication is not the [hetero]sexual reproduction of offspring, but the auto-poietic reproduction of *self*-replication. Eigen's research (1992) shows that individuals and populations that interact with other species increase their variability and complexity, producing more mutations within an adaptive range, that allow for continued evolution of the population (Padgett, 2011).

The incorporation of new elements into genetic self-replication produces mutations, and some of those mutations prove to be highly adaptive to changes in the environment. Chaos theory then asserts that no one knows which mutations will ultimately be adaptive for the population. As the chaotic process proceeds along several pathways and eventually eliminates unsuccessful paths—that is, when the system evolves as a whole—only then can we know, historically, which mutation was successful. Moreover, Padgett asserts that diversity within species can only be sustained through continued interaction with divergent species. Padgett asserts: "Homogeneity in genotype and phenotype doesn't mean that life can't exist. It just means that life can't evolve" (Padgett, 2011: 29). Thus, encountering the new, the different and the strange through reproductive networks, and incorporating some of those elements into one's own self-organization, drives evolution. Padgett proposes that "[t]he contrasting worldviews of reproducing networks versus of replicating atomistic units are pregnant with consequences, both intellectual and political" (Padgett, 2011: 9).

Cultures are reproduced in populations by social institutions including the family, religion, education and media through the controlled replication of language, cognition and behaviors, constituting cultural 'reproductive networks.' The interjection of the queer into networks of social and cultural reproduction allows the whole system to evolve new social forms and capacities, some of which may turn out to be highly adaptive. I propose that reproductive networks are the key to understanding human socio-cultural evolution, and the key to understanding how the queer influences human evolution.

Evolution does not proceed from similarity, but from difference. Luhmann's (1995) cardinal rule is that systems self-organize and evolve as a difference from their environments. Challenges from the environment provoke adaptive responses. But adaptation does not have to be tightly coupled to the environment. Structural coupling, which is the evolution of functions that adapt to specific environmental conditions, can be loosely coupled, thus allowing for tremendous diversity in species who can still thrive in a given environment. Loose structural coupling is a form of evolution called *satisficing*. Luhmann argued that all systems (species, populations) evolve to the point where they obtain degrees of freedom from their environments. This allows them to continue to evolve unique

and divergent forms, so long as their basic needs are met. If the only type of animal that could survive in a northern wetlands were beavers, then there would nothing but beavers in wetlands. But in fact there are countless thousands of unique species that thrive in wetlands. If all humans lived their sexual and social lives in largely the same way, there would be little chance for cultural evolution. The queer introduces novel patterns of social behavior that force the individual, and the population, to adapt to new ways of relating, expressing sexuality, new forms language and cognition, provoking novel aesthetic responses to the cultural environment. Adapting to the queer expands the repertoire of behaviors that humans evolve towards unfamiliar stimuli, to creatively engage with the strange. It expands the human repertoire for social interaction with unfamiliar others. Rejecting or ignoring the queer— closeting—limits the range of relationships and behaviors that humans can engage in, possibly cutting off adaptive responses to more extreme environmental conditions that require flexible, creative responses.

1.2

QUEER AS STRANGE ATTRACTOR

An attractor is a set of events in a dynamical system, which is a system that evolves. An attractor is a set towards which variables in the dynamical system evolve over time. The new set towards which the variables gravitate is called a 'basin of attraction.' Attractors evolve in 'phase-space', the turbulent space which represents all possible states of the system. A strange attractor is a chaotic set with a fractal structure that is non-linear and never repeats. It is represented by a figure in 4-dimensional space (3-D + time) that represents all possible outcomes, or points, of a chaotic system. By repeating a non-linear process, represented by iterating chaotic calculations, one does not know where on the attractor a given point will emerge, just that it will emerge somewhere on the attractor. Strange attractors are not predictable, yet they are wholly determined (i.e. they emerge from known parameters); but how and where they emerge are the unknown factors. Strange attractors can spontaneously appear when the current system loses its dynamic stability and when system parameters pass critical values. The change in values will shift events in the

system toward the new set, or basin of attraction. Dynamical systems tend to be dissipative, that is, they tend to lose energy over time, quell disturbances and stabilize toward the basin of attraction. A *strange attractor* will shift a system in phase space from one state to another, at the point of bifurcation, toward a new basin of attraction (Dimitrov, 2000).

Chaos theory proposes that if system parameters pass certain critical values, the basin of attraction loses its stability, and a strange attractor is spontaneously created. The region in phase space where this occurs is called *the edge of chaos* (Dmitrov, 2000). Queer-as-chaos is a dynamic feature of cultural systems that is nested within the larger social system. As the *strange attractor*, the queer pulls parameters of the system off their stable values and towards a new trajectory. The kinds of system parameters that the queer has affected (historically) are relationships, genders, sexualities, self-expression, norms, aesthetics, language, images, codes. When the values of those parameters cross critical thresholds, it destabilizes the normative system and pulls it toward a new basin of attraction, and the system evolves.

The queer-as-strange attractor pulls the hetero-normative system into phase space (i.e the range of all possible values of the system). This is the moment of chaos. At this point the system bifurcates, or develops a 'pitchfork' pattern of trajectories. Many paths are open and possible; which path the system will follow depends on environmental conditions, cognitive choices, and chance. When the queer-as-strange attractor pulls an individual parameter into phase space, at the point of bifurcation, the system may *shift in phase space* to an alternate trajectory. Chris Lucas describes the bifurcation process as happening with frequent periodicity in complex systems:

> In fact, studies of complex dynamical systems have shown that what happens (typically) is that areas of state space that are unstable become stable, and areas that are stable simultaneously destabilize. There is thus a two way coevolution between modes moving from 'order to chaos' (barriers dissolving - the creativity of 'art'), and modes moving from 'chaos to order' (barriers forming - the rationality of 'science'), yet they swap places over time—what was 'known' becomes

> 'uncertain', what was 'uncertain' becomes 'known' (Lucas, 2005: par. 24).

Once 'straight', the individual is now 'gay'; once 'man', the individual is now 'woman', and organizes her life in a new system around a whole new set of codes. In human systems, that shift can always be consciously refused. If however, the parameters of the psycho-social system are disturbed repeatedly by the strange attractor, that shift my be delayed, or only partially realized, but it will erupt again at some point. The shift in phase space destabilizes and complexifies the present system, producing hybridization, or a shift towards a new basin of attraction. Social scientist Vladimir Dmitrov, in *Strange Attractors of Meaning* (2000) captures the multi-modal dynamics of an evolving system:

> At the edge of chaos, two (or more) strange attractors can simultaneously lose their stabilities and merge to form a new attractor (a phenomenon known as *attractor-merging crisis*), or one strange attractor can become suddenly destroyed (a phenomenon called *boundary crisis*), or can dramatically decrease / increase its size (folding / expanding *interior crisis*), or can split into two or more attractors (*attractor-splitting crisis*) (Dimitrov, 2000: par. 18).

The complex dynamics of queer-as-chaos exhibit properties that exceed this brief index of chaotic phenomena. Queer-as-chaos is a *fractal* phenomenon in that it fractures relations and cultural experiences into self-replicating fragments that can merge, split, and generate recombinant cultural forms, subcultures, and social relations.

There is something about the strange, the odd, the unfamiliar, and the queer, that attracts us; that pulls us towards its manifestation, inexorably, even as we are afraid of the unknown. The first time at a gay nightclub, the first sensation that one's gender is not what it's supposed to be, the first sexual encounter with someone of the same sex, the first gay kiss, is enough to be 'queer' for someone who has never encountered that or felt it before. Encountering the strange attractor is electrifying and disturbing; feelings erupt within us that we may have never allowed ourselves to feel. The explosion of these chaotic experiences into our mundane world can wreak havoc on our lives. Countless coming-out stories talk about the

shattering effect of coming out on established relationships, on the old system of hetero-normativity. As we are pulled further into the vector of the strange attractor, we are confronted with queer codes of language, performance, sexuality, and embodiment that we may never have encountered anywhere else. We are confronted with political conflicts over embodiment and desire—gender and sexuality, race and ability—of which we were previously barely conscious, or for which we previously held opposite views. Our world is thrown off balance. We are forced to let go of everything we held onto and rebuild a new life around new relationships, new identities, a whole new way of seeing the world, of which, by the fact of that explosion, we are no longer a part.

Even after a brief encounter, our perceptions of reality are transformed. We learn that there are queer things in the world that can upset our mundane experience. Yet even as we become familiar with the strange attractor, the sense of strangeness never leaves us. There is always something about it that remains unsettling and disturbing. It never quite becomes comfortable or quotidian, even to those who live self-professed queer lives. So says queer theorist Timothy Morton:

> Strange strangers are uncanny, familiar and strange simultaneously. Their familiarity is strange, their strangeness familiar. They cannot be thought as part of a series (such as species or genus) without violence. Yet their uniqueness is not such that they are independent. They are composites of other strange strangers (Morton, 2010: 277).

Queer-as-chaos is an un-identity. It is an identity that never stabilizes, never solidifies. It is a dynamical identity that constantly shifts changes and evolves over time. It is a relational identity that changes with one's relationship to others and ourselves. There is always some stable, functioning 'me' that relates to the world, but the characteristics of that 'me' changes with psychic growth and relational development.

More than an ambiguous becoming, the un-identity of queer-as-chaos operates as a *refusal to be* what society expects queer people to be. Foucault was once asked if he thought he was a man or a woman; his reply was: "I'm not sure" (Foucault, 1977). Foucault said further: "Maybe the target nowadays is not to discover what we are, but to refuse what we are. We have to

imagine and to build up what we could be to get rid of this kind of political 'double bind', which is the *simultaneous individualization and totalization of modern power structures*" (Foucault, 1982; emphasis mine). Foucault's theory was that social power doesn't just control individuals—it creates them. His statement models a queer refusal of identity; his ethic was to a refuse to be those 'selves' generated by the same cultural codes and relations of power that control them. His method of refusal was to deconstruct the social mechanisms of power / knowledge that produced particular identities or 'selves'. The un-identity of queer-as-chaos works against both of those poles: against the excessive individualization that obstructs collective action, such as that performed by anarchist affinity groups; and simultaneously against the totalization of systemic power.

In a homo-normative and defensive stance, some of us cling tightly to a sense of solidity as gay, lesbian, bi-, trans- or queer, and try to construct a subculture that protects that identity. Our gay milieu becomes so defensive and small that "we end up bored to death with ourselves and our world" (Chodron, 2008: 45). And just when we think we have our gay, lesbian, bi-, and trans-, world all figured out, another strange attractor comes along and explodes all of those assumptions and routines. Defending the territories and borders of gay, lesbian, bi-, trans-, and queer, trying to hold them up as if they were fixed and essentialist identities (even as we argue that there is 'nothing essential' about them) becomes futile and exhausting.

So I have begun to see queer as a 'free-floating' identity. One is not impossibly queer all the time. It is a quality I exhibit when situations draw it out of me. It appears in certain ways when I'm relating with other queers, and when I'm rubbing shoulders with straight and homo-normative gays—then my queerness becomes 'readable'. I don't see queerness as a property that I possess, or as an essential physical or cognitive quality. I see it not as performative in the Butlerian sense (1990), but as an improvisational performance in response to both inner psychic states and outer conditions. Niklas Luhmann, in his theory of intimacy in social systems (1986), would have defined the queer (as he did all social phenomena), as a trans-personal *system*. It is not located within individuals, but it manifests between those that communicate and interpret it. Sedgwick's *Epistemology of the Closet* (1990) proposed that the figure of the 'homosexual' stood for a broad catalogue of binary

oppositions that ground each other in social and linguistic relations. I propose that the queer is a set of collective symbolic codes that anyone can invent, acquire, and exhibit through communicative events. I would call these queer instances *performative events*. Moreover, the queer is a form of communication. It must be 'read' by others; the act of interpretation intensifies the experience of the queer.

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1.3

Chaos as Desire

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Queer-as-chaos is a defiant refusal of normativity, even if it occurs only for a moment in one's life. The enactment of a queer desire for sexual ecstasy, for embodied and out-of-body queer experiences with strangely familiar others, can disrupt one's carefully planned life course. Queer sexuality in all its forms is perhaps the most disruptive desire, but so is shifting one's gender and identity. These and other queer desires can set off explosive chain reactions in one's relationships and rip through communal networks that connect the queer and the straight. Queer-as-chaos is anarchic, but relational, because the queer is primarily expressed as the desire for an other—a person, a gender, a particular embodiment or experience with others. It can only be observed through the communication of strange new languages and enigmatic codes. Queer desire is so disruptive that often it can only be enacted for brief moments of one's life, on the fringes of straight society. But these brief eruptions are enough to change one's world irrevocably.

Inasmuch as the movement of queer desire is towards the forbidden, the unknown, the strange attractor, it is also a movement against repression, a refusal to be silenced or caged, to be reduced to functionaries in a capitalist regime. Bateman, in his comment on the future of queer theory, concludes: "Thus, queers do not simply enter society on heterosexuality's terms; they recast such terms, seizing upon instabilities in signification to elaborate previously unarticulated and perhaps unanticipated ways of life. [...] Queer, then, might denote the instability of all norms and social orders, their intrinsic capacity for change" (Bateman, 2006: 66). Perhaps what is so disturbing about queer desire is its power to reveal that straight society is not as bedrock as it seems, that straight society itself is fraught with dynamics that are unstable and chaotic. I propose that it is

the increasing complexity and instability of the hetero-normative system that allows it to also produce the queer.

Queer desire holds out the possibility of relations that exist outside of normative institutions. Foucault's dialogue on homosexual friendship challenges queers to "escape the ready-made formulas of the pure sexual encounter and the lover's fusion of identities" (Foucault in Rabinow, 1998: 136). He proposes a queer friendship that will "introduce love where there's supposed to be only law, rule, or habit" (Foucault in Rabinow, 1998: 136). Foucault asserts: "The problem is not to discover in oneself the truth of one's sex, but, rather, to use one's sexuality henceforth to arrive at a multiplicity of relationships [...] The development toward which homosexuality tends is one of friendship" (Foucault in Rabinow, 1998: 136).

The queer desire for sensual friendships disturbs the institution of monogamy, whether in its pre-marital 'partner' form or under the terms of contract for marriage. The possibility of relating to many other queers in a sensual way in which we enact our desires for queer others, for queer embodiment, for a multiplicity of queer expressions and aesthetics, destabilizes the system's imperative to limit one's desires and relationships to one's immediate family or spouse. Foucault's 'politics of friendship' is a polyvalent form of queer political engagement that breaks up the tightly-controlled nuclear arrangements of heteronormativity.

1.4
WE INTERRUPT THIS MESSAGE

Queer-as-chaos is the synapse of creation. To create, destroy, and evolve is the process of queer creation. Queer performance is *upcycling*—the repurposing of a body part, an article of clothing, an image, a word for something other than what it was originally designed for. It is *camp* and *drag*, making a parody of a character or celebrity to deconstruct the character's social status and their latent cultural signifiers. *Hacking*, the insertion of a shocking substitute message for the expected 'real' one at a site of networked distribution, is queer-as-chaos. *We are Anonymous and we are everywhere*—you just never know where we're going to show up next. The queer performative is deeply personal and marks the individual as queer, yet it can also be

deployed anonymously and virally, until it emerges as a disruption of the expected.

Pussy Riot, a Russian feminist punk band, engages in forms of anonymous and viral queer performance. All the members of the band wear a balaclava for their public performances, which, although it masks their individual identities, strengthens the impact of their collective performance. Members of Pussy Riot don't profess to be gay in the usual sense, but they are queer in that they use shocking performance to uncover structures of power, disrupt relations of oppression, and scream for a liberated, autonomous yet relational, form of life. They devise performances that use common tropes (punk rock) in ordinary environments (church), yet remix and reinterpret them to shock audiences into the realization of their place in the power structure and the possibility of liberation. The pinnacle of their work was their 'punk prayer' at Cathedral of Christ the Savior Russian Orthodox Church in Moscow, on February 21, 2012. Putin had made several dictatorial pronouncements from within that church. In protest, Pussy Riot entered the church and staged a performance on the alter in the middle of a religious service, complete with balaclavas and guitars, and screamed "Mother of God, Chase Putin Away!" The performance tore the veil that cloaked the unity of church and state in Russia, revealing the combined fascist religious and political powers that oppressed women, queers and the entire Russian people. For that, members of Pussy Riot were arrested, convicted of 'hooliganism' and imprisoned. By contrast, homo-normative political movements are generally pushed through the legal system, geared toward the inclusion of gay, lesbian and trans-people in existing normative institutions. Homo-normative movements provoke negative feedback loops that squelch difference and promote the repetition of normative behaviors. Queer political movements, like Pussy Riot, are anti-normative and extra-legal, often labelled 'criminal'. They provoke positive feedback loops that destabilize the normative system and force it to adapt to the chaotic intrusion of queer behavior.

1.5

THE BUTTERFLY EFFECT: BRADLEY MANNING QUEERS THE GLOBAL EMPIRE

Systems in a state of chaos undergo dramatic change in a very short period before negative feedbacks stabilize them in a new basin of attraction. But systems are nested within systems, holonically and by interdependent networks. Disturbances within one, seemingly small and insignificant, sector can spread out and ripple through multiple scales and systems, triggering tipping points and unexpected outcomes at nodes at distant scales and systems, a phenomenon of chaos known as 'the butterfly effect.'

Private Bradley Manning was as arrested in May 2010, charged with 22 crimes related to his alleged involvement in WikiLeaks. Accused of releasing top-secret information to an enemy, Manning was charged with treason, which carries the death sentence. The government of the United States alleged that Manning released anywhere from 50,000 to 300,000 cables, photos, videos and documents, to an informant who was connected with WikiLeaks. He released the Afghan War Diary and the Iraq War Logs, documenting torture and intentional killings of civilians. He released the 'Collateral Murder' video, showing that US military intentionally shot a dozen unarmed Iraqi civilians, including two reporters from the Reuters news agency. Bradley released thousands of other documents and communications that contained evidence of United States' war crimes in Iraq and Afghanistan (Zetter and Poulsen, July 6, 2010 to Nov. 29, 2012).

Private Bradley Manning was well-known in queer circles before he joined the military. He was bullied as a fag at the school in Wales where he lived with his mother. As a teenager, he lived with his military father in Oklahoma, who kicked him out of the house because he was gay; he survived by living in his car. But his genius as a code programmer got him a job in the military. He was given high security clearance to data banks that stored both military and diplomatic information. As Bradley's personal and online life was investigated and released to the media, we discovered that Bradley had a feminine identity named 'Breanna'. We don't know the extent to which Bradley embraced the identity of 'Breanna', but we do know that he engaged in online chat sessions about his gender identity with Adrian Lamo, the man who would later turn him in to the Department of Defense. Bradley was repeatedly

humiliated by military command for being small-framed and effeminate. He was about to be discharged from the military on grounds that he was mentally ill, when he discovered the evidence of war crimes and decided to release it. The story goes that Bradley copied the data from the military computers on to a Compact Disc of music by Lady Gaga, gleefully lip-syncing her songs while he downloaded the information (Editors, *The Advocate,* Nov. 30, 2010 to Dec.17, 2011).

To the military brass, Bradley was a 'known unknown'. His supervisors were aware of his character and background. They even knew he was receiving therapy from a private psychologist. But they didn't know the degree to which Bradley was willing to disrupt a global military empire by exposing its heinous crimes. Bradley's position in highly classified intelligence placed him at the core of the global military empire. There, deep in the matrix of its vast network of data and communications, Bradley did something few people in history have had the chance or the courage to do: queer a global empire. The release of that flood of documents through WikilLeaks was so far-reaching in its effects that it became the database for a global uprising. Michael Moore wrote that the WikiLeaks documents catalyzed the first uprisings in Tunisia, the Arab Spring, and the Occupy movement.

People across the world devoured the information Bradley Manning revealed, and it was used by movements in Egypt, Spain, and eventually Occupy Wall Street to bolster what we already thought was true. Except here were the goods – the evidence that was needed to prove it all true. And then a democracy movement spread around the globe so fast and so deep – and in just a year's time! When anyone asks me, "Who started Occupy Wall Street?" sometimes I say "Goldman Sachs" or "Chase", but mostly I just say "Bradley Manning" (Moore, Dec. 18, 2011).

Journalist Gregory White cites Bradley's WikiLeak document from June 2008 as critical to the Tunisian uprising: "So, while unemployment and inflation were the underlying causes of the revolution, this WikiLeak may have been the spark that turned the public, and the government, against itself" (White, January 14, 2011). The Tunisian people had already suffered decades of political corruption, oppression and poverty under the Ben Ali regime; they were ripe for insurrection. All they needed to know was that the US would not interfere with a

revolt, and that knowledge came through Bradley's WikiLeaks release.

Chaos theory proposes that, given the right systemic conditions, seemingly small events can have disproportionately large effects on an entire system, the so-called 'butterfly effect.' If a system is over-connected, brittle and near the breaking point, it takes only a few small events to destabilize an entire system, even a global empire. After decades of corruption, high unemployment and poverty, Tunisia was already ripe for revolution. On 17 December, 2010, Mohamed Bouazizi's vegetable cart in Tunis was seized by police a third time. In protest Bouazizi set himself on fire, setting off the riots that eventually let to the full uprising in Tunisia, and the overthrow of the Ben Ali regime. These combined 'small events' were enough to set in motion a 'butterfly effect' that rippled through the global colonialist system. Bradley's WikiLeaks and Bouazizi's self-immolation, were enough to spark a revolution in Tunisia. That movement in turn inspired the uprisings of the Arab Spring in 2011, a movement for liberation which later returned to the heart of the global empire in September 2011 as Occupy Wall Street.

During the nine months of his pre-trial detention at the Brig in Quantico, Virginia, Bradley was tortured daily: held in solitary confinement 23 hours per day, no contact with the outside world, stripped of all his clothes, even his underwear, forced to sleep naked and inspected while naked every morning. He was not allowed to exercise or read anything. Furthermore, he was the only prisoner at Quantico who was treated this way. These were all the kinds of torture techniques that were used at Guantanamo, in Iraq, Afghanistan and other 'black site' prisons around the world in the 'war on terror'. And these are exactly the kind of torture, abuse and war crimes that Bradley Manning tried to expose to the world.

Beyond the gruesome facts of Manning's torture at Quantico there is something even more troubling for both Bradley and the gay community in North America: the stunning silence of gay human rights leadership about Bradley's situation. Seeking to understand and document this silence, I researched and personally contacted NGLTF, the Human Rights Campaign, the International Gay and Lesbian Human Rights Commission, and EGALE Canada regarding Bradley Manning. I found no reference to Bradley as a gay prisoner of conscience. Not one of these organizations has published even a statement

acknowledging Bradley's situation. The silence of the gay and lesbian human rights organizations concerning Bradley, and his denouncement by gays in the military, is outrageous. It implies that the equal right to serve in a military regime is more important than the right of a queer brother to be protected from torture. It implies that gays and lesbians who serve the imperialist State in the military will be protected, but queers who challenge the imperialist State by exposing its horrific criminality will not be protected. It implies that it is more important to be seen as compliant functionaries of the Imperialist State than it is to challenge the brutality of the imperialist State. Bradley gave up what meager security he had in the imperialist war-machine and chose instead to chaotically disrupt the global military empire. Bradley's action were quiet and unassuming, yet eminently queer-as-chaos.

1.6

CULTURE ON THE EDGE OF CHAOS

The permaculture principles of David Holmgren remind us that "the interface between things is where the most interesting events take place; these are often the most valuable, diverse and productive elements in the system" (Holmgren, 2002). Borders and intersections between queer and normative identities, shorelines, forest edges, ethnic neighborhoods contiguous with dominant culture zones, queer cruising sites that intersect hetero-normative spaces, are places where interactions among the marginalized and the queer provoke new adaptations and produce new cultural forms. In a turbulent or collapsing system, peripheries become a critical place for creating and storing diverse resources, a means of surviving chaos and for rebuilding new systems. Queer theory to date has focused on the dynamics of power at these intersections in contested zones, on the privilege of dominant subjects and the oppression of marginalized subjects; and I think queer theory should continue that debate. But I think it's also fruitful to see how the intersections of cores and peripheries, of privileged and marginal subjects, can also be *productive* of chaotic forms of being and relating, of mutations and hybrids, of the kind of turbulent system dynamics that generate diverse elements and transform systems. When we encounter these turbulent borders, where energies collide and species encounter the

strange attractor, we are improvising and adapting at the edge of chaos.

Systems theory from Niklas Luhmann (1995) and Joanna Macy (1991) concur that as systems evolve, they develop structures that are more reactive and highly adaptive, but also more unstable and vulnerable. Rigidity and structure is sacrificed for flexibility and movement that allows a organism to sense and move across a broader terrain. As systems become more complex and flexible, they are more prone to destabilization as well, and also thus more prone to the spontaneous production of chaotic processes and forms. That is one way that a system which produces order also produces chaos, and ergo, how a complex heternormative system also produces the queer.

In a complex system, precise replication is sacrificed for transmissibility and interactivity, and human language is the prime example (Macy, 1991; Luhmann, 1995). Dimitrov also applied chaos theory to language through the dynamics of the strange attractor:

> As complexity increases, precision and meaningfulness become incompatible. While precision thrives on stable (fixed) meanings, the fuzzy meanings are unstable—they can simultaneously relate to several attractors and express specific types of meaning-generating crises. Instability of the fuzzy meanings make them flexible for interpretation and open for evolution and transformation. And these are precious qualities necessary for understanding social complexity (Dimitrov, 2000: par. 30).

Language is a system at the edge of chaos. Queer dialect, in particular, is fraught with ambivalent meanings. The strange attractor in queer dialect is a chaotic form of code generation that disrupts stable meanings. It interjects startling new uses and interpretations of common codes, and constantly invents new linguistic codes.

Fontdevila, Opazo, and White (2011) explore the evolution of language systems in "Order at the Edge of Chaos." They contend that social interactions are chaotic, linked together in entangled network domains or *netdoms*, which are divergent social contexts. They propose that identities couple and uncouple social ties with other identities across multiple

netdoms. Through discursive interactions (e.g. narratives) with other identities across multiple netdoms individuals create identity narratives as a work-in-progress. Switching from one netdom to another creates opportunities for comparison, and thereby generates and assigns new meanings to discursive interactions and identities. Thereby, the authors describe the chaotic processes that create ambiguous and flexible linguistic codes:

> We argue that identities attain viable footing precisely because they are part of multiple netdoms at once. Switches in talk, of code and register, for example, between distinct domains are at the same time switches in which particular social ties and respective stories of different sorts are being activated and deactivated. [...] So uncertainty grounds both social and linguistic dynamics that give rise to stories—meaning comes with induction and management of ambiguity through netdom switchings (Fontdevila et al., 2011: 185-6).

Netdoms are those intersecting spheres of interaction that require different dialects and verbal cues. The authors' example is a group of office workers that talk amongst themselves in casual language, but switch to professional language when the boss walks by (Fontdevila et al., 2011: 188). These *netdom switchings* are shaped by differences in power relations, differences in strangeness or familiarity to the performative context of the language. The particular contexts of these switchings is conveyed through cues that signify different meanings to different audiences: "Note that all these examples include performative frames, cues, mannerisms, or subtle 'keys' that mark shiftings in communicative performances, such as voice modulation, posture, gesture, side remarks, and also the dynamic interaction that takes place between performers and audiences, among other things" (Fontdevila et al. , 2011: 190).

Taking the authors' own example, we can recall instances when we talk in queer dialect with gay friends, using 'fag' gestures and slang, sharing common experiences with queer subculture, but switch to 'straight talk' when the boss walks by, when the straight world transects the queer. Switching back and forth between multiple contexts, queers develop detailed narratives that relate and contrast their queerness to each of

these contexts. The *netdom switching* argument proposes that it is precisely because queers constantly switch narratives and responses to multiple environments that they are able to 'gain footing' (i.e. create a narrative of queer identity that has continuity and stability over time). But the effect of netdom switching works in both, or really multiple, directions. Queer-as-chaos is adept at using the ambiguity of language to multiply and transform the meanings communicated through *netdom switchings* both in straight and queer worlds. Crossing through hybridized borders between domains, queer dialect becomes the *strange attractor* that destabilizes dominant heteronormative codes and generates new dialects and meanings. Queer language and its performance are the spawning grounds of subaltern cultures that resist heternormative power structures.

Jose Muñoz' theory of *hybridity* in his book, *Disidentifications* (1999) describes a similar process as the queer performance of dominant cultures by hybridized subjects: "These subjects' different identity components occupy adjacent spaces and are not comfortably situated in any one discourse of minority subjectivity. These hybridized identificatory positions are always in transit, shuttling between different identity vectors" (Muñoz, 1999: 32). As with Fontdevila's *netdom switching,* hybridized queer identities shuttle between dominant and multi-marginal cultural spaces and languages, not completely identifying with either. Neither aligning with the dominant ideology nor rejecting it, they instead transform dominant discourse:

> Instead of buckling under the pressures of dominant ideology (identification, assimilation) or attempting to break free of its inescapable sphere (counter-identification, utopianism) this 'working on and against' is a strategy that tries to transform a cultural logic from within always labouring to enact permanent structural change while at the same time valuing the importance of local or everyday struggles of resistance (Muñoz, 1999: 11).

Muñoz's study shows that hybrid queer identities chaotically mix the tropes and codes of the dominant and the multi-marginal in queer performance. By this process, they crossbreed those tropes and codes to generate new forms of language and identity:

> Disidentification is about recycling and rethinking encoded meaning. The process of disidentification scrambles and reconstructs the encoded message of a cultural text in a fashion that both exposes the encoded message's universalizing and exclusionary machinations and recruits its workings to account for, include, and empower minority identities and identifications. Thus, disidentification is a step further than cracking open the code of the majority. It proceeds to use this code as raw material for representing a disempowered politics [...] that has been rendered unthinkable by the dominant culture (Muñoz, 1999: 31).

Muñoz's analysis thus goes beyond Fontdevila's explanation of language-at-the-edge-of-chaos. Like Foucault, he reveals the political potential of queer identity, language and performance for imagining new political worlds beyond the dominant regime, essential elements for a queer politics of chaos.

Judith Halberstam's *In a Queer Time and Place: Transgender Bodies, Subcultural Lives* (2005) chronicles the lives of queers that emerge where they are least expected. She traces the production of queer aesthetic forms produced in queer subcultures which are then appropriated by artists of the avant-garde. She argues that subcultures produce vital art forms that resist the excessive control and rationalization of social life. In my view, the *strange attractor* of queer aesthetics pulls cultural production out of its stabilized basin as a form of capitalist commodity into new ecologies of cultural production. Halberstam proposes the ambiguity of the transgender body as the site for postmodern cultural production: "I want to claim for the images that I examine here an aesthetic of turbulence that inscribes abrupt shifts in time and space directly onto the gender-ambiguous body, and then offers that body to the gaze as a site of critical reinvention" (Halberstam, 2005:109).

Halberstam (2005) argues that the notion of a flexible queer identity could be seen as the co-optation of a radical subculture into the flexible production regime of late capitalism. She critiques a 'wrong' interpretation of postmodern gender studies that promotes flexibility and fluidity of gender identity as a neo-liberal acquiescence to "flexibility with respect to labour processes, labour markets, products and patterns of consumption" (Harvey as cited in

Halberstam, 2005). Resisting any particular queer identity label is construed as rejecting a political stance that challenges homo-normativity, allowing hipster 'metro-sexuals' to concern themselves with consumption and domesticity. Yet Halberstam's work aims "to keep transgenderism alive as a meaningful designator of unpredictable gender identities and practices, and it locates the transgender figure as a central player in numerous postmodern debates [...]" (Halberstam, 2005: 21). While she discredits the notion of flexibility, she reaffirms the quality of *unpredictability*, an essential feature of *chaos*. Capitalist science strives for predictability, capitalist production requires just-in-time control. Thus, instead of the hipster metro-sexual who is flexibly integrated into postmodern capitalism, I propose the *strange attractor,* queer-as-chaos, an explosive rendition of the queer performative that destabilizes systemic power. Its very unpredictability defies even late capitalist modes of 'flexible' production. Furthermore, I do not essentialize the 'queer' within gay, lesbian or transgender bodies and identities. Bodies that are visibly marked as transgender aren't innately 'queer', unless the person presents their embodiment intentionally for that purpose. I define queer-as-chaos as an intentional cultural and political stance taken in opposition to hetero-normativity.

While the transgender body and gaze may be a site of aesthetic chaos, it is not limited to that site. Halberstam begins there but moves to other queer sites in her analysis of both figurative and abstract artists. Such artists move their productions outside the boundaries of gallery space and time: paint slabs that are not contained within a frame; latex sculptures that decay over time; bodies that extend off the canvas. In doing so, she links the queer of transgender embodiment to an aesthetic queerness that generates ambiguous and shifting forms. Such forms show visible signs of trauma, rupture and disjuncture, forms that resist the logics of categorization and commercialization. The 'queer' then, becomes abstracted to include aesthetic processes that evolve unpredictably over time, whose narrative of self-representation is never explicit or finished. Returning to the transgender, the aesthetic of turbulence, or chaos, is represented through multiple and simultaneous perspectives on the shifting embodiment of the strange attractor.

1.7

THE HALF-LIFE OF A STRANGE ATTRACTOR

Judith Halberstam's archive (2005) of Brandon Teena's life and murder chronicles the short and tragic life of a strange attractor, hidden at first, moving quietly through a web of intimate relationships in a small town. Brandon, 21 years old, had been dating Lana Tisdel, who became aware of Brandon's transgender status but continued to date him. Brandon became for her, as he was for several teenage girls in rural Nebraska, the *strange attractor.*

On Christmas Eve, 1993, Brandon and Lana spent the evening with Brandon's friends, John Lotter and Tom Nissen, both 19 years old. The two men forced Brandon to strip his pants and reveal his female anatomy, and then forced Lana to identify him as female. They drove Brandon to a nearby meat packing plant and raped him. Brandon later escaped and reported the rape to the police, but Lotter and Nissen pursued Brandon to his house and shot him there, and his two friends, Philip DeVine and Lisa Lambert. DeVine was a young black man dating Lana Tisdel's sister, and Lambert was the mother of a young toddler and Brandon's roommate (Freisling et al., 2005; Jones, 1996).

Brandon's transgenderism disrupted the power structure of rural Nebraska. The power structure in Falls City is one that polices intimate relations, psychic states, genders, classes, and races. At core of the incident, the power structure was represented by the murderers Lotter and Nissan. But the power structure of rural Nebraska extended beyond the murderers. It included the Falls City Sheriff who interrogated Brandon at the emergency room, where he had gone after the rape; the rape kit was later destroyed. It included the psychiatric facility where Brandon was held for three days for a 'sexual identity crisis', and then forced to undergo counselling four times a week with his mother. It included the heterosexual family system, represented by his mother who interrogated his sexual relationships. It was a racialized power structure that said 'whites don't mix with people of color.' Although Brandon was represented as white in the media, Jones reports that he was of mixed heritage, that his paternal grandfather was a full-blood Sioux (Jones, 1996). It included the prison system where Brandon, having been arrested for forging checks, was forced to identify as Teena Brandon, a female. It included the media; the

local newspaper, that published his name and identity as female Teena Brandon, and the film that identified him as a male named Brandon Teena (later contested). It included the court system that hosted a series of postmortem civil court cases, in which Brandon's transgender identity was a core issue. And it included Brandon's use of the symbolic power of masculine presentation, which was violently turned against him, but only because he was a masculine person with a supposed 'female' body. The targets of this power structure included not only Brandon, but everyone who was intimately associated with him: his girlfriend Lana who was shamed into identifying him as female; his friend Philip who was shot, probably as much for being Black and dating a white girl; and his friend Lisa Lambert, who was also shot, who tried to hide him from the murderers. The system responded with a violent form of 'negative feedback' for enacting, as Halberstams says, "a turbulent desire —one that must be paid for in blood" (Halberstam, 2005: 110).

Brandon actively resisted the many forms of systemic power that tried to lock him into a normative trajectory as a heterosexual girl. He confronted a priest at his high school, Pius X, who promoted abstinence and homophobia. He dropped out of school and later tried to join the army, but failed because he checked 'male' on the entrance application. His only route out of poverty, joining the army, was closed because he insisted on telling the truth about himself. The only occupational route left for Brandon was working as a gas station attendant and forging checks.

The network of power that policed Brandon's gender, sexuality and occupation was destabilized by Brandon's queer refusal to conform. This is another case of the 'butterfly effect' but on a local scale. Brandon's queer resistance and his murder rippled through and exploded not only the local power structure of rural Nebraska, but the larger network of power that polices queer genders and sexualities across North America. The shock waves caused by his murder, as Halberstam notes, surged through queer communities across the country. It disrupted the politics of lesbian and gay activists, transgender and transexual activists, as each group tried to claim his identity as "one of their own" in their struggles for rights and recognition (Halberstam, 2005). Halberstam asks if the notion of a flexibly queer (non)identity repudiates the history of liberation that gave rise to its existence (Halberstam, 2005). That critique short-circuits the complete cycle of queer

evolution. The queer as *strange attractor*, having evolved through decades of gay liberation struggles, then split off from the formalities of gay-lesbian-trans politics, cycles back to chaotically transform those same structures and communities.

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1.8

NON-LINEAR TIME/SPACE AND THE EVER-PRESENT

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What Judith Halberstam refers to as a 'postmodern' rendition of time and space, I call 'non-linear' or chaotic time / space. In both instances, a queer time / space continuum fractures a linear 'straight time' trajectory: "Queer uses of time and space develop, at least in part, in opposition to the institutions of family, heterosexuality, and reproduction. They also develop according to other logics of location, movement, and identification" (Halberstam, 2005: 1).

In the queer chronology of a 'lifetime', one can begin a new facet of identity many times over. The hetero-normative linear time of child, adolescent, adult worker, elder is interrupted by breaks in the trajectory that mark bifurcation, divergence, and chaotic becoming. The shift from one locale to another, from one community or culture to another, through borderline and hybrid spaces, through networks of relationships, calls forth new queer performatives that improvise and adapt to constantly changing environments. Past lives in other places are reconfigured in the present space as the strange attractor to a new social context.

In *Cruising Utopia: The Then and There of Queer Futurity*, (2009), José Muñoz speaks about the past as a repository of queer memory that can be brought forward into the present and reenacted as 'queer world-making', a queer utopia. He rejects a 'pragmatics of the present' that settles for what is already institutionalized in the here and now. Instead, he proposes a chaotic *utopia of the present* that is open to memories and future possibilities. He speaks of a queer utopian future, of queer desire that is always on the verge of becoming but never fully realized in the present. Muñoz's past, though, is a past that shadows the present, what Muñoz calls the "ghosts of utopia"; likewise his queer utopian future is a "utopia in the present" (Muñoz, 2009):

> More specifically, I see world-making here as
> functioning and coming into play through the

> performance of queer utopian memory, that is,
> a utopia that understands time as reaching
> beyond some nostalgic past that perhaps never
> was or a future whose arrival is continuously
> belated—a utopia in the present (Muñoz, 2009:
> 37).

He never quite says it, but Muñoz implies a non-linear, chaotic, theory of time, in which a past or future event can be woven into an ever-present. The chaotic time-space continuum enfolds into an attractor that brings the queer from alternate time-spaces to the here and now. Understood as non-linear time, it is no longer necessary to mourn the past as loss, or hope for the future as unfulfilled desire, in order to bring it to the present. Bringing past queer performatives into the present reanimates those cultural memories with fresh interpretations for present generations. But the reenactment of a queer past in the present is not merely a repetition of the past because it is reenacted in the context of a present that never existed before. In the diagram of the strange attractor, chaotic events are spun into closely aligned spirals that never exactly repeat.

Muñoz's 'queer world-making' is a figuration of queer space, a superposition of queer surrealities onto linear heterosexual space. This overlapping of multiple realities and spaces is a non-linear understanding of space. The mapping of non-linear queer time / space onto the straight linear world is a configuration of time / space that allows for an embodied re-enactment of the queer in the ever-present.

Another queer challenge to 'straight time' is Edelman's work, *No Future: Queer Theory and the Death Drive* (2004), which refuses a deferred erotic present for the sake of a future that is the domain of the child. Edelman argues that the ground of queer social movements has been the impetus to reject the security of a hetero-normative future in favor of a risky hedonistic present. Edlman argues that queer sexuality has been the historic driver of a queer politics that is a negation of the political, an anti-politics that defies any function, purpose or hope for a utopian future, and especially a future safe and secure for 'the child'.

I also reject a notion of future that is a continuous deferral of life lived in the present. In a non-linear ever-present, future consequences are taken into account in the present, and present behavior is understood as having consequences far into the future. But life and its future

consequences are fashioned in a lived in the present. Thus, a non-linear present is not amoral; it is not a deferral of the consequences of the present. Rather, I take Franco Berardi's political theory as a praxis for those who wish to live in a liberated present free of the exploitation of capitalism and hetero-normativity. He rejects a notion of the future as the fulfilment of the promise of capitalist-technological progress. Berardi declares: "If the future has to be a future without society, a future where only economy, where capitalism, where wealth and accumulation is legitimated, and society is nothing, if the future is this, we say 'no future'" (Berardi, 2011). Likewise, if a secure gay future has to be a future without the queer, where the only imperative is the accumulation of hetero-normative social status, then I say, *no future.* I would rather forgo a future of capitalist accumulation and ecological destruction in order to live a non-linear ever-present where I can enact queer desires and revolutionary politics.

Queer-as-chaos likewise offers no hope of a secure future, whether for children or anyone else. The chaotic process of evolution involves the possibility of the collapse of the system on which we currently depend, and uncertainty as to what the state of the future system will be. While Edelman's anti-future involves embracing the death drive, queer-as-chaos requires that we tolerate extreme levels of risk and uncertainty. Chaotic evolution pulls out the rug we're standing on, destroys the system of production that today ensures our very survival. As Naomi Klein argues persuasively, if we who live in wealthy nations did what we needed to do to reduce global carbon emissions to a level that allows the continuation of life on earth, it would collapse capitalism as we know it, the system that we currently depend on for survival (Klein, Nov. 28, 2011). Queer-as-chaos is willing to risk that scale of collapse, even while not knowing with any certainty what the future holds. Queer revolution does not promise a 'better' future, only a different one.

Edelman insists on a queer politics that refuses the dictum of (hetero)sexual reproduction. The reproduction of hetero-normative simulacra within same sex coupling displaces the queer. It is not that gay people are 'queering' the institutions of marriage and child-rearing. Rather, the hetero-normative has eviscerated the queer from gay life and has substituted its own spawn, as do parasitoid wasps who implant their eggs into the bodies of other insects for hatching. It is a

reverse parasitic relationship where 'gay' is used as the incubator for hetero-normative social reproduction.

The reproduction of homo-normativity saps the revolutionary energy and power of queer lives. Can we imagine instead the larger, social reproductive role that queers have as agents of cultural evolution? Can we envision a queer utopia in the present that has the power to ignite the bomb of awakened consciousness and liberation? Can we see our role as progenitors of a multiplicity of relationships as Foucault suggested? And *in a world of seven billion humans* that are ravaging the climate and resources of the planet, can we see queer relationship as an evolutionary advancement that expresses its fruitfulness in queer 'world-making' and connection with each other? Should we fight climate change just for the sake of 'our' children and grandchildren, or because we value the sacredness of all humans, all species and the entire ecosystem of this beautiful planet?

In both Muñoz and Edelman's work, there is a sense of continuous mourning of a queer gay past that can never be resurrected in the present. It remains a shadow, a ghost, a waning death drive. Perhaps the queer community can move toward the final stage of mourning, which is to *let go* of the past, to come to terms with the reality that gay, lesbian, bi-, and trans-, are no longer the sole domain of the queer. If we let go of our longing for a queer gay past, we might more fully engage in the eruption of a queer revolutionary politics that is already underway.

1.9

CHAOS, COLLAPSE, AND THE CALL OF THE FERAL

Systems theory tells us that periodically a mature system becomes locked-in to its patterns of dependence on certain structures, relations, and resources (Gunderson & Holling, 2002). The system becomes brittle and prone to failure. When there are repeated shocks to those structures and relations, system breakdown occurs with greater frequency and severity. As the system uses up its resources to recover and resume typical functioning, it depletes those resources and becomes more prone to collapse. System collapse, beginning from the top down, then becomes an inevitability. This is the moment of chaos and also the point of greatest resilience to continue life,

because it is from this stage that a new system state becomes possible. Systems evolve slowly as they successfully adapt, but systems evolve most rapidly when they break down. As the system collapses, resources that were previously locked-in become available for recombination toward the evolution of a new system state. Resources are released and synthesized into new structures, species, and niches. Chaos takes over, hidden capacities come into play, the marginal becomes critical, unique, and innovative properties take over and new organisms and structures evolve (Gunderson & Holling, 2002).

Joseph Tainter, in his study of civilizations, ancient and modern, east and west, tribal and urban, found that all civilizations undergo collapse at some point, either partial or total (Tainter, 1988). One of the drivers of collapse is the refusal of 'support populations' to continue to prop up the elites. Tainter found in most cases that when hierarchies of elites collapsed, 'support populations' gained an advantage. Though they struggled with the devastating effects of collapse, they also had more resources of their own to rebuild their communal networks at a lower level of complexity. Thus, to 'queer the system' is to refuse to prop up institutions and practices that cannibalize our human capacities and the environment we depend on. Queer-as-chaos is not about 'homosexualizing' systems of empire—the military, capitalism, racist nationalism, and patriarchal family structures. Its evolutionary force is to disrupt and destabilize empire and colonialism. Faced with the collapse of the old system, we are driven toward another basin of attraction. The strange attractor drives the system to bifurcate and shift to another state, enabling the emergence of a new system of relations, both social and environmental, but we don't yet know what it looks like.

"There's a new wild everywhere" sings Ontarian folk singer Tony Decker. Catastrophic climate change is perhaps the greatest evolutionary force that the human species have faced since the last Ice Age. How we survive it as a species depends on our ability to adapt to extreme changes in environmental and cultural conditions. One of the near-term impacts of climate catastrophe is mass migration. When people migrate, voluntarily or by force, they move out of their home locales to unknown places where they encounter the *strange*. They are forced to adapt to an unfamiliar culture, and in the process they become 'the stranger'. Previously tamed and comfortable in

their familiar home sphere, they become the 'feral' in a strange new cultural environment.

What was once domesticated returns to the wild as the *feral*. To re-enter the world as *feral* is to be a potential threat to both the domesticated and the wild. Ramirez and Ravetz explore the chaotic dynamics of the feral future: "We introduce a third type of futures, which arise when futures previously considered to be predictable are expected that they might become, unpredictable, without having been thought to be unpredictable to start with. We call these 'feral futures'" (Ramirez & Ravetz, 2010: 479). Though completely unpredictable, feral futures are driven by known anthropogenic forces; they do not emerge 'naturally'. The forces of domestication that tamed an entity begin to fail, and the failed process itself becomes a driver toward the feral. Assumptions implicit in the knowledge of domestic and wild conditions do not apply with any certainty to feral entities or futures. Early signs of a feral condition become disruptive knowledge that is often denied or repressed (Ramirez & Ravetz, 2010: 481).

Hit by the Superstorm of climate change and financial collapse, we escape our darkened apartments; searching for food and human aid, we ditch our paralyzed cars. No cell phones, no Facebook or internet pick-up sites. We are forced back to the streets, encountering (possibly) the queer 'other'. Queers who resist domestication and embody the energy of the wild might be better equipped to deal with such a feral future. A foreclosed future also means there's no mortgage to pay. The American dream of spouse, house, 1.3 kids and two cars in the garage is finished, and so is the dream of gay domesticity. But the queer thrives in the feral world. Thrown out of our domestic dreamworld, the feral occupy once-abandoned city parks that used to be cruising sites, which are now the sites of anti-capitalist resistance.

The Arab Spring. Los Indigñados. Rising Tide for Climate Justice. G-20 Toronto. London Against the Cuts. Occupy Wall Street. The Maple Spring. The WalMart Strikes. Strike the Debt. Idle No More. Smaller protests surge in cities around North America: oil pipeline protests in Nebraska, Texas and British Colombia; anti-fracking marches in Albany, NY and Fredericton, New Brunswick; Pussy Riot and Gay Pride protests in Moscow. Powerful waves of uprising keep crashing over the barricades of a decrepit capitalist empire. We are in a decade of political

chaos that is disrupting the global regime of the colonialist Corporate State.

While queer theorists are mourning the death of queer politics, the fists and flags of revolutionary movements that are very much alive are flying around their heads. These are the queer movements of this decade, *queer* because they push back against a totalizing repression of speech, bodily acts and communal relations. The US National Defense Authorization Act of 2012 authorized indefinite detention without trial for anyone who exhibits 'belligerence' toward the government. Protestors are potentially branded terrorists for the mere fact of assembling and engaging politically in a public space. Yet protestors defy totalitarian lock-down by creating free communes, a reprise of queer world-making.

Occupy Wall Street announced it's intentions with 'one demand', but never seemed to articulate exactly what that demand was. The media reacted to the Occupy movement with one question: what do they want? Individuals in the Occupy movement had countless demands, most related to economic oppression (e.g. we are the 99% vs. the 1%, the criminality of the banks, bailouts and foreclosures). But the Occupy movement as a whole seemed to have no overarching narrative, no set of identifiable goals or policies, except to say, "We are the oppressed, and we are not afraid anymore." The 'speaking' which Occupy signified was the simple act of being together, making whatever political statements they wanted in the spirit of free speech, connecting with each other, creating a communal life together, a queer world-making. For the expected message of a list of policies that might be take up with —and co-opted by—political parties, Occupy substituted an enigmatic message: [   ]. The One Demand seemed to be that they asserted their right and desire to say what they wanted to say, to create solidarity with each other in order to have the courage to speak the truth, however they conceived it.

The occupiers spontaneously gather and create an improvised society, *a community of strangers*. Camps are set up; makeshift kitchens serve fresh-cooked food, waste is converted to compost, solar collectors are erected; treatment stations deliver medical services, communications systems are wired up; events are photographed, filmed and transmitted through the Internet via cell phones and wi-fi; libraries are established; radically democratic councils are set up for self-governance by direct consensus. This improvised and marginal existence is

also a site of tremendous freedom and resistance. The occupiers create a queer way of life that transects the boundaries of the Corporate State that is brutally policed by a domestic army. Through social and medial networks, the occupy movement quickly spreads across the globe, revealing a mycorrhizal network of resistance. Once hidden, the network emerges in surprising numbers and strength, appearing in places where it was least expected.

This is the self-organizing politics of the feral, the once tamed now unleashed into spontaneous relations with the strangely familiar. What was once caged indoors within the confines of a nuclear family and behind an electronic fence, is now deported into liberated spaces, spaces that are also 'queer' spaces. The *queer* returns as the *feral*, as the disruption of domesticated time / space into the kaleidoscopic swirl of non-linear time / space, the vortex of the strange attractor.

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2.0

A QUEER POLITICS OF CHAOS

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As Muñoz suggests, we are "not quite queer yet, that queerness, what we will really know as queerness, does not yet exist" (Muñoz, 2009: 22). That queerness remains always on the horizon of possibilities. As a chaotic process, the queer is always in a process of *becoming*, and moreover, it is the process by which *all things become*, and so therefore it never fully becomes 'itself', because it is always on the way to becoming something *other*. Queering the phenomenal world is a process of continual and chaotic evolution, which means that we are always at home but never quite at ease in the company of the strangely familiar. It involves risk and danger, but also trust with those who have taken those same risks.

The politics of chaos acknowledges the inevitability of collapse as part of a cyclical process that allows for continued evolution. Berardi reminds us that: "Catastrophe means, in Greek, a change of position that allows the viewer to see things that s/he could not see before. Catastrophe opens new spaces of visibility, and therefore of possibility, but it also demands a change of paradigm" (Berardi, 2009: par. 20). Catastrophe requires one to reorient one's perceptions and conditions, to search for new 'spaces of possibility.' Naomi Klein's *The Shock Doctrine* (2007) argued that elites use disasters to fundamentally

shift world systems to a new state, one that allows them to dispose of interfering populations and extract more resources and wealth. But in response to Superstorm Sandy, Klein revised that theory to include a counter-thesis of 'a people's shock'. She proposes: "The reconstruction from Sandy is a great place to start road testing these ideas. Unlike the disaster capitalists who use crisis to end-run democracy, a People's Recovery (as many from the Occupy movement are already demanding) would call for new democratic processes, including neighborhood assemblies, to decide how hard-hit communities should be rebuilt" (Klein, Nov. 9, 2012). So at the very least, queer-as-chaos political strategies suggest that we adopt a new paradigm for understanding what appears to be a 'catastrophe'. It suggests that in the face of impending collapse, we stop supporting elites and the systems they run, which are already in a state of failure. It suggests that we use conditions of collapse to rebuild our lives around a new set of values and practices, out of an urgent need for our individual and collective survival. *Collapse is not failure*, but the end and beginning of a new cycle of evolution.

The totalizing narrative of the 'final revolution' as cathartic event is not presented here as a model of chaotic politics. As Franco Berardi argues, that narrative has been discredited numerous times in history. Berardi proposes a revolution that is a shift form centre to periphery, from the dominant and totalizing to the marginal and polymorphous. This dynamic allows the centre to implode and collapse while the queer proliferates and thrives on the margins.

Beatriz Preciado, in her exploration of twenty-first century biopolitics, which she calls the 'pharmapornographic era,' pleads for the embodiment of discursive forms of resistance into physical ways of life that will survive a technological melt-down of life on the planet:

> The theorico-political innovations produced during the past forty years by feminism; the black liberation movement, and queer and transgender theory do seem to be lasting acquisitions. However, in the context of global war, this collection of scholarship could be destroyed also, as fast as a microchip melting under intense heat. Before all the existing fragile archives about feminism and black, queer and trans culture have been reduced to a state of

> radioactive shades, it is indispensable to transform such minority knowledge into collective experimentation, into physical practice, into ways of life and forms of cohabitation (Preciado, 2013: 349-50).

Non-temporary autonomous zones can avoid becoming totalities because they are more likely to be modular and disparate, connected by communicative networks but not fully integrated into a system, allowing for further differentiation. Franco Berardi calls this form of revolution a "dynamics of recombination and singularization" (Berardi, 2009: par. 34), what I have defined as a queer dynamic. A singularity is not limited to individuals; collectives can be singularities. Singularities are self-organizing entities that evolve not according to a dominant institutional logic, but in reference to their peculiar niche or situation. The singularity is related to the 'consequentiality of history' only as a response to the chaotic rupture that has severed it from the dominant centre and straight time (Berardi, 2009). I find Berardi's notion of singularities as political resistance to be particularly congruent with queer performatives and relations. Halberstam calls these singularities *subcultures*, and sees them as vital places of queer relating, cultural production and political praxis.

Critiques of the singularities approach to revolution are that small isolated communities cannot build the kind of mass movement necessary to reorganize or replace an entire system. Small, localized, highly differentiated entities lack social power to both resist and survive against the immense power of a totalizing centre. But this critique is premature because it presupposes that the establishment of local singularities is the end state of the process. Using chaos theory, we understand that in order to create a new system from the ground up, we begin with a large number of small but highly diverse elements. Those elements will begin to *network*—to link up via communication, collaborative decision-making and cooperative exchange. From this linkage, a networked *commons* of skills, resources and revolutionary energy may coalesce. Structures, functions and capacities may emerge that are not possible at the level of the local singular community. But because of the unpredictability of the chaotic process, we don't know exactly what those new functions and capacities will look like or how they will operate, nor should we provoke premature closure of the process by trying to predict and steer it toward some

supposed outcome. Such premature closure would be based primarily on our historic experience under the old system, and would more likely result in reproducing dysfunctional forms of the old system. Working skillfully with the chaotic process will allow new functions to emerge at higher levels and scales that are adapted to the new environmental conditions we face.

What I present here as a political model is queer-as-chaos as 'a way of life'. We are drawn into collaborative co-evolution with the strange attractor, those with whom we share some affinity with but whom we don't know well and don't feel totally comfortable with. This singularity can take the form of a community of the strangely familiar, the politics of friendship, queer world-making, subcultures, counter-publics, or what John P. Clark calls 'the impossible community' of affinity groups (Clark, 2013). As the strange attractor, the queer has the capacity to resist totalizing cultures and power structures on personal and communal levels. Queer-as-chaos creates new languages and codes enigmatic to the system that allow the evolution of singular relations and cultures. Refusing the normative and insisting on creating our own way of life, with our strangely familiar friends, is not only queer, but a means of survival. What has seemed up to now to be a useless performance of idiosyncrasy in a marginal life could also be a means of generating relationships and resources for surviving a collapsing system.

Queer-as-chaos is not the organicism of engulfment into a so-called 'natural order', with all the essentialist racism and (hetero)sexual reproductive oppression that implies. It does not require a fascist conformity to an ideology or religion to survive. History is replete with racist and genocidal killing machines driven by totalizing ideologies. You do not have to be "like me" in order to co-create this singularity. The strange attractor assumes that you will be different from me; if you aren't different now, then you will be very shortly. It does not require institutionalization into a rigid frameworks of (re)productive straight time. Rather, queer-as-chaos is a politics that allows for disruption and uncertainty as a means to evolve new capacities, to differentiate and split off into as yet unknown species and systems. Therefore, queer-as-chaos can flexibly adapt to rapidly changing conditions.

Queer-as-chaos does not predict the future of the new systems that are evolving because the future is inherently unpredictable, and because there is *no future* that we can use to

justify the current system and our stake in it. Queer-as-chaos embodies the manifold possibilities of the future in a utopia of the present, in bodily enactments of how we want our future-present selves to be. Queer-as-chaos takes its chances and actively resists the intrusion of normative power at crucial systemic nodes, never knowing if this might be the point at which the butterfly effect takes over and destabilizes the system. The strange attractor thrives in disturbed and feral conditions, seeing it as an opportunity to establish new lifeworlds. While normative systems deny and repress early signs of the feral, the queer uses that denial as camouflage to build up networks of resistance. When and where it is least expected, queer-as-chaos is unleashed on the world as the *strange attractor.*

<div align="center">CONCLUSION</div>

I have developed a new definition of the queer as 'the strange attractor' using the ecological version of chaos theory. Queer-as-chaos was situated within the broad field of systems theory as it has been developed in evolutionary biology, ecology, mathematics, social science. I proposed queer-as-chaos as a foundational concept for a queer ecology. Queer-as-chaos was examined as a disruptive but evolutionary force that transforms cultures, social institutions, power structures and local / global systems. The concept was explored through embodiment, relationships, language, performance, aesthetics, and politics. It was examined in parallel with other strains of queer theory offered by Butler, Foucault, Sedgwick, Halberstam, Morton, Bateman, Edelman, Muñoz, and with the political theory of Franco Berardi. Finally, queer-as-chaos was mapped onto the realm of on-going political movements. I proposed a queer politics of chaos that involves creating a utopia in the present, a queer world-making with strangely familiar others. The creation of singularities and subcultures was proposed as a peripheral space from which to actively resist centralized power structures. Queer-as-chaos was presented as the breeding ground for cultural mutations and lifeworlds that may thrive in the face of systemic destabilization and collapse.

Further explorations of a queer chaos theory would deploy and disrupt intersectionality, investigating the myriad and fractal ways that queer-as-chaos disrupts racial, gender,

ability, colonialist, and class categories, and the power structures that contain them. The hoped-for result of exploring the *strange attractor* is that concepts and terminology from the science of chaos will virally invade queer theory, disrupt and destabilize this field of knowledge, and generate new meanings and codes.

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