ABSTRACT

Title of dissertation: CHAOTIC TOPOGRAPHY IN CONTEMPORARY FRENCH
                           AND FRANCOPHONE LITERATURE

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Chaos theory proposed by Ilya Prigogine and Isabelle Stengers illuminates new conclusions about narrative structures in contemporary French and Francophone literature. Espousing an order-out-of-chaos paradigm, my tutor texts by Annie Ernaux, Frankétienne, and Jean-Philippe Toussaint demonstrate how the contemporary notions of identity, gender and genre are innately chaotic but simultaneously offer innovative insights into how these entities are being (re)conceived and (re)presented. Scientific, philosophical, and cultural models of chaos described by Prigogine, Deleuze and Glissant respectively, offer a means to understand the world in order to frame a contemporary cultural topography. Liberated limits of the novel, poetry, and diary genre, viewed through the concept of chaotic "noise", represent richness of information rather than a dearth in order. With Prigogine's Arrow of Time, identity is found in the future not in the past suggesting a non-linear development that is plagued with uncertainty but possibilities. Consequently, identity in contemporary literature is located in others and not in the self challenging traditional notions of this concept. Bifurcation points serve as nodes of "textual instability" revealing themes and trends questioning the function of language, identity and generic transitions in contemporary literature. Through the concept of strange attractors, women, men, language and places within these chaotic tutor texts serve as points of order to which chaotic narratives consistently return advocating the creative force of non-gendered chaos. Accordingly not only can the notion of identity, love and language be viewed as fractal within their own textual space, but the texts themselves transcend generic boundaries. Finally, the contemporary cultural topography is expanding to include electronic literature as an area of critical study. Due to the medium of transmission, i.e., the computer code, electronic literature presents chaotic form and content and challenges traditional notions of 'reading' a text. Consequently, the reader interacts with the computer code causing the 'narrative' to bifurcate resulting in multiple, unpredictable reading experiences. Chaos theory thus offers a pertinent tool through which to read and interpret this genre. Electronic literature's literariness, viewed through chaos theory, is defined as what changes instead of what remains constant.

CHAOTIC TOPOGRAPHY IN CONTEMPORARY FRENCH AND FRANCOPHONE

LITERATURE

by

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DEDICATION

To my husband, Mark, and to my parents, Joe and Lois, for their love and encouragement throughout this incredible journey.

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INTRODUCTION

Chaos: The Contemporary State of Becoming

Using an interdisciplinary approach, my dissertation explores the paradigm of order out of chaos in literary texts through the intersection of science with literature, positing that science and literature both contribute to shape an era's "cultural topography." Within this topography is what N. Katherine Hayles defines as the 'ecology of ideas': a collection of "feasible ideas" that *may* emerge given different influences within a culture (*Chaos Bound*, 185). This analysis asserts that the notion of chaos is one idea within this ecology which is influencing and shaping contemporary science and literature. Society has witnessed the increasingly important, creative, vital force of disarray in non-linear dynamics or "chaos theory" not only in physics, but also in weather systems, game theory, and economics. Moreover, instead of insisting on an array of orderly values to understand a system, science and technology now privilege a non-hierarchical, irreducible "noisy" system of information as the standard instead of the exception for a model of the world.

Likewise, chaos theory has emerged as an alternative, productive tool of literary investigation. However, while many contemporary critical works have examined both British and American literature through the optic of chaos theory, there is a dearth of similar critical inquiry into contemporary French and Francophone literature.[1] The

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[1] For critical studies investigating chaos in American and British literature see, for example, Harriet Hawkins, *Strange Attractors: Literature, Culture, and Chaos Theory*. New York: Prentice Hall/Harvester Wheatsheaf, 1995; N. Katherine Hayles, ed. *Chaos and Order: Complex Dynamics in Literature and Science*. Chicago: The University of Chicago Press, 1991; N. Katherine Hayles, *Chaos Bound: Orderly Disorder in Contemporary Literature and Science*. Ithaca: Cornell University Press, 1990; Ira Livingston, *Arrow of Chaos: Romanticism and Postmodernity*. Minneapolis: University of Minnesota Press, 1997;

paradigm of order-out-of-chaos, as developed by Belgian Nobel prize winning chemist, Ilya Prigogine and Belgian philosopher of science, Isabelle Stengers, will serve as the model of scientific chaos for this dissertation.[2] Adding to this important discussion between science and literature, my examination will privilege chaos theory as an appropriate paradigm through which to (re)explore genre, identity, and gender in contemporary French and Francophone literature while simultaneously considering the numerous conceptual and experimental differences between science and literature. First, this introduction will offer a brief consideration of three major aspects which influence contemporary literary production, especially the tutor texts analyzed herein: the socio-political context, the recent evolution in the history of literature and the influence of the media on literary production. A formal presentation of this investigation's three authors will follow, closing with a summary of the subsequent chapters.

This dissertation will examine works by Annie Ernaux from France, Frankétienne from Haiti, and Jean-Philippe Toussaint from Belgium.[3] As such, social and political

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Thomas Jackson Rice, *Joyce, Chaos and Complexity*. Chicago: University of Illinois Press, 1997; and Jo Alyson Parker, *Narrative Form and Chaos Theory in Sterne, Proust, Wolf, and Faulkner*. New York: Palgrave Macmillan, 2007.

[2] Ilya Prigogine was born in Russia and became a naturalized Belgian citizen in 1949. He attended and taught chemistry at the Free University of Brussels. He also taught at the University of Texas at Austin in the United States. He won the Nobel Prize in chemistry in 1977. His major works on chaos (non-linear dynamics) theory include *From Being to Becoming* (New York: W.H. Freeman, 1980), *Order out of Chaos: Man's New Dialogue with Nature* (New York: Bantam, 1984), and *The End of Certainty: Time, Chaos and the New Laws of Nature* (New York: The Free Press, 1997 . Isabelle Stengers is a Belgian philosopher of science and currently teaches at the Free University of Brussels. She co-authored *Order out of Chaos: Man's New Dialogue with Nature* (1984) with Prigogine as well as collaborated with him on *The End of Certainty: Time, Chaos, and the New Laws of Nature* (1997). In addition she has published on the relationship between science and contemporary society in *Power and Invention: Situating Science* (P. Bains, transl. Minneapolis: University of Minnesota Press, 1997) and *The Invention of Modern Science* (D.W. Smith, transl. Minneapolis: University of Minnesota Press, 2000).

[3] Frankétienne was Franck Étienne until he was 36 years old when, as he claims in an interview with Rose Adele Joachim entitled "Entre Franck Étienne et Frankétienne" (*Raj Magazine* "Frankétienne 'L'immortel'" special series number 1, January 2008, p. 53-59) at the time of publishing *Ultravocal* that "I was seeing the printer and I asked him to put Frankétienne as one word on the cover. At the time, I didn't know why, and it was only by the events to follow that I realized it was a way to kill, to rid the virus of division which was devouring our country. And when the world calls me as such, I felt that I was living a

motivations influencing literary creation are admittedly quite different among the three countries. In the second half of the twentieth century, France and Belgium did not experience the devastating, chaotic dictatorship as Haiti did during the reign of the Duvaliers (1958-1986). As Marie-Agnès Sourieau and Kathleen Balutansky note: "During Papa Doc's dictatorship, and to a lesser extent during Baby Doc's presidency, state repression muffled political and literary expression, banning books, censuring magazines, and stifling book publishing" (21). Despite or perhaps in spite of this political oppression, literary creation continued in Haiti.

Sourieau and Balutansky characterize this post-war period in Haiti as one of rich inspiration that would fortify Haitian literature henceforth:

> In the years following World War II, Haiti lived a period of intense intellectual immersion in the worldwide expression of *Négritude* and Surrealism. Inspired by Aimé Césaire and Léopold Senghor's *Négritude* and André Breton's surrealist movement, as well as by the works of Cuban artists Wilfredo Lam, Nicolas Guillen, and Alejo Carpentier Haitian arts and literature expressed a sense of urgency and hope that the country has not experienced since. (20)

Césaire in fact claimed in his work *Cahier d'un retour au pays natal* (*Notebook of a Return to a Native Land)* that Négritude first stood up in Haiti. In addition, Kaiama L. Glover asserts:

> Indeed *Spiralisme* was founded on the same sentiment that prevails in modernist consciousness in general, that is, the notion that literature had become increasingly less satisfying in the face of the dramatic changes that marked the whole of the society over the course of the twentieth century. In the Franco-European context, this notion was initially codified by the surrealist writers and reached its culminating point with the [New Novelists], the sole established movement with which the Spiralists have ever claimed affiliation. (Sourieau and Balutansky 247)

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sort of profound unity of my person, unlike all that was happening in my country which was sectioned off, cut, fragmented by divisions of all kinds."

Surrealism would influence literary creation on the European continent between the two World Wars while its influence would not reach Haiti until after World War II. The sense of defiance against colonialism from Négritude, surrealism's automatic writing and subversion of the ordinary, and the New Novelists rejection of traditional novelistic forms would prepare the Haitian writers well in the face of the Duvaliers' absolute tyranny, oppression and manipulation of the truth.

If the literary legacy of Surrealism in France and Belgium was broadly Existentialism, Absurdism, OULIPO, and ultimately the New Novel, in Haiti, it would be *Haïti Littéraire*, Spiralism, Plurealism, and Surplurealism.[4] This investigation will focus primarily on Spiralism as it is a movement inspired by scientific chaos theory. In Haiti, Joseph J. Ferdinand claims: "The notion of a literary school does not automatically imply a large collection of members united under a conceptual umbrella punctuated with more or less dogmatic instructions" (Sourieau and Balutansky 207).[5] It is just these fluid boundaries that he asserts are responsible for the eclectic literary creation in Haiti since

> [t]he members could emigrate from one group to another (and certain ones did) without having to disown, without having to forswear their aesthetic convictions. What should be remembered ultimately is the eclectic character of literary production from this era, where, except in particular cases, writing goes confusedly to irrigate itself from all the currents of the signifier and the signified. (202-203)[6]

Interestingly, similar reactions in Belgium, France and Haiti in literary production did occur despite political and evidently economic disparities. Notwithstanding several well-

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[4] For a discussion of each of these Haitian movements see Joseph L. Ferdinand "Doctrines littéraires et climats politiques sous les Duvalier" in Sourieau and Balutansky.

[5] La notion d'école littéraire n'implique pas forcement un large rassemblement d'adhérents réunis sous un parapluie conceptuel ponctué de prescriptions plus ou moins dogmatiques.

[6] Les adhérents pourraient émigrer d'un groupe à l'autre (et certains le feront) sans se renier, sans avoir à abjurer leurs convictions esthétiques. Ce qu'il convient de retenir en fin de compte, c'est le caractère éclectique de la production littéraire de l'époque où, sauf dans des cas particuliers, l'écriture va confusément s'irriguer à tous les courants du signifiant et du signifié. (202-203).

known literary movements in all three countries, authors tended to avoid being grouped in

specific literary movements. In fact William Thompson admits that

> the majority of novelists [writing in France post-World War II] chose to follow paths independent of the more prominent and well-advertised attitudes of the times. In spite of their enduring renown, by no means were existentialism and the nouveau roman the only, or even the dominant, tendencies in the novel in France during the period between the end of World War II and the end of the 1950s. (7)

According to Jean Mainil in his entry "Francophone writing (fiction, poetry): Belgium,"

French-speaking Belgian authors fled to France in the twentieth century to write due to the

lack of "institutional or academic support" in Belgium such that "[t]hroughout the history

of Belgian literature, the trend of exile to Paris has been so consistent that there is indeed

some truth to the adage that 'One French author out of two is Belgian'" (241). In spite of

this immigration to Paris, Mainil does affirm that

> While many [Francophone Belgian] authors of the first half of the century have set their own work within a movement or have been 'labeled' according to French literary taxonomy […] contemporary Belgian authors remain idiosyncratic. The 1980s saw a tremendous development as far as Belgian writers were concerned, both with new voices and with writers who had published before and who came back with much-acclaimed novels. (242)[7]

Beginning in the 1970s, in Belgium, France and Haiti fewer and fewer "literary schools"

surfaced. In Haiti, many writers fled the Duvaliers and preferred to write in exile while

others chose to stay at their own peril. Consequently, influences both integral and exterior

to Haiti would influence the Haitian literary discourse. Sourieau and Balutansky astutely

summarize:

> Several writers who lived abroad for a while and returned to Haiti […] have produced novels that represent, to a large extent, the individual and collective experience of Haiti's descent into greater political chaos and

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[7] Since Toussaint, although Belgian by birth has only published with Editions de Minuit in France, this analysis will primarily consider French literary influences from France in conjunction with those in Haiti.

economic impoverishment. In the diaspora the generation of writers of *Haïti Littéraire* remained for a time profoundly attached to Haitian predicaments and settings while expressing their obsessions over the impossibility of their return. […] The younger generation of Haitian writers in the Americas and Europe […] offer thematic or theoretically challenging experimentations. Yet, both the *Haïti Littéraire* generation and the younger generation of exiles continue to produce works that constantly mirror the reality of life under siege. (36)

Not only is Haiti chaotic socially, politically and economically, but the diverse literary movements and varied locations of Haitians writers as well as their age has led to assorted influences on their writings. Consequently, in form and in content, this dissertation claims that Haitian literature reflects the chaos its writers are experiencing. Literature in Haiti and France since World War II both seemed to experience a decline in unified literary movements in favor of developing nascent literary forms. If the Duvaliers' reign primarily influenced Haitian literature post-World War II, France, as Thompson advocates, counts the World War II recovery effort, the Algerian War, the cold war, nuclear proliferation and May 1968 "as well as the endless list of scientific discoveries" as events that shaped French literary production in the second half of the century" (1).

Equally, critics of French literature have acknowledged the disarray and lack of specific names of schools or characteristics of different movements.[8] The New Novel in France is the last of the well-defined literary "schools" or movements in the second half of the twentieth century, a school which paradoxically rejected traditional literary forms. Jean-Louis Hippolyte claims "[I]f the New Novel was a reaction against the tenets of Balzacian prose, today's prose does not present itself as a reactive movement, and this is one of its major idiosyncrasies" (9). However, instead of this tendency spiraling

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[8] For example, see Jean-Louis Hippolyte *Fuzzy Fiction*, Lincoln: University of Nebraska Press, 2006; Fieke Schoots, *Passer en douce à la douane: l'écriture minimaliste de Minuit: Deville, Echenoz, Redonnet et Toussaint*, Atlanta: Rodopoi, 1997; and William Thompson, ed., *The Contemporary Novel in France*, Jacksonville: University Press of Florida, 1995.

contemporary literature into complete disarray, this current period of metamorphoses offers the opportunity for productive bifurcations in answering Sartre's question "what is literature?"[9] For Thompson, "the apparent disorder of the contemporary novel [is not] a crisis to be lamented, but [is] the inevitable process of change characteristic of the contemporary world in general" (3). As will be discussed below, scientific chaos, eternally evolutionary and unpredictable, is an appropriate paradigm through which to view this progression in literature.

If Haiti's literature has been substantially influenced by political, social and economic disorder, contemporary literature in France is also exhibiting chaotic patterns suggesting undercurrents of disarray in its culture as well. Michel Butor admitted as early as 1967 in an interview with Georges Charbonnier regarding his work *Mobile* that "It is not the singular that comes first for me, not the individual, it is the plural, and it is inside the plural that the singular will condense itself" (Charbonnier 189-190).[10] This notion of valuing the plural over the singular is a notion integral to chaos theory that views movement and events on a systemic, collective level rather than an individual one. Butor may not have been very familiar with scientific chaos theory, but he is sensing a theme from an "ecology of ideas" present in contemporary society. Hippolyte also suggests that

> If the randomness of today's fictions seems to account for a world that is terminally chaotic, it is the very blurring of ontological boundaries and the persistent presence of formal determinisms that give the text its sense of purpose. In this unpredictable environment it is narrators who function first and foremost as the text's chaotic attractors. (23)

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[9] Jean-Paul Sartre *Qu'est-ce que la littérature* ? Paris: Gallimard, 1948. Written in response to critics questioning his notion of an "engaged" literature (*littérature engagée*) he separates his book into four chapters centered on three questions and one statement: what does it mean to write?, why write?, for who does one write? And the situation of the writer in 1947.

[10] All translations are mine unless otherwise noted. Ce n'est pas le singulier qui est premier pour moi, ce n'est pas l'individu, c'est le pluriel et c'est à l'intérieur du pluriel que le singulier va se condenser.

Hippolyte describes contemporary fiction as being "fuzzy," inspired from the contemporary domain of "fuzzy" mathematics. This field suggests that objects, in this case literary texts, do not belong solely to one category or another but that the boundaries between different literary works are, according to Hippolyte, "permeable and changing" allowing migration between formerly strict categories (13). Hippolyte even characterizes narrators in contemporary fiction as being fractal strange attractors, an element inherent to scientific chaos theory. Whereas Hippolyte emphasizes the fuzzy nature of fractals, this dissertation will explore fractals' chaotic qualities in Chapter One and Chapter Four. In serving as a chaotic attractor Hippolyte claims that modern narrators are similar to older narratives where "characters carried the symbolic weight of the story" (23). In essence he concludes that contemporary fiction, despite its chaotic nature and fuzzy ontological boundaries still "carr[ies] on the traditions of old. In so doing [it] map[s] out a road through chaos and display[s] a persistent tendency toward pattern and order" (23). This dissertation contends that order does not always result from chaos in the texts by Ernaux, Frankétienne, and Toussaint and that it is in exploring the bifurcations, which move a text to order or to more chaos, that textual instabilities will surface and offer important points of investigation for contemporary literature.

Without question, the media in Haiti, France and Belgium does influence the proliferation and sustainability of literary production. In Haiti, censorship against all that denounced the government required writers to be creative in producing and distributing their work. Although Frankétienne's works were subversive to the Haitian dictatorship, the Duvalier government judged him to be insane and thus did not either censor his work or kill him. Frankétienne has stated that it was in fact his writing that kept him from

becoming insane. In France and Belgium, while censorship is not an issue, the ratio of newspapers and media outlets to works published is incredibly small and the daily press has diminished considerably. Hippolyte describes the state of publishing in France as grim (4).[11] Specifically, Hippolyte underscores the large role that media plays in promoting literature: "caught in the nefarious dynamics of the mediazation of literature, writers must now vie for five minutes of fame on television, without which their books have little chance of existing" (2). While the quality of books may have declined, the quantity of books published is still high and competes for fewer and fewer advertising slots.

The media not only influences the distribution and success of contemporary literature, but also serves to influence the form and content of these works. With the increasingly dense network of information on the Internet coupled with the diverse forms of information (Facebook, Youtube, blogs, online newspapers and journals, and author websites), the contemporary writer in Haiti, France and Belgium will have equal access to details on the same headlines and world events. This analysis contends that chaos, both scientific chaos theory and popular notions of chaos, is one element in the ecology of ideas that influences contemporary writing.

In France and Belgium, various newspapers carried stories about both scientific chaos theory and the deformation of its foundations in all areas of society. In February 1989, the daily Belgian paper *Le Soir* (*The Evening*) ran articles on chaos theory and its

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[11] Hippolyte acknowledges that the presence of big publishing houses dominates small ones. In addition, large book stores such as FNAC and Amazon sell so many books that literary works become lost among popular fiction. He also reports that pre-World War II, about 60 newspapers existed for 100 books published each year. Today, however, there are only a dozen newspapers for every 300-400 books published – thus fewer advertising spots today than pre-World War II and thus less public advertisement. (4).

application in medicine. Jacques Poncin from *Le Soir* in his article "Vive le chaos du monde vivant" ("Live the chaos of the living world") even draws the reader's attention to the fact that popular and scientific chaos is not necessarily the same thing suggesting that contemporary science is challenging an age-old notion:

> Careful! The word chaos is not exactly for scientists what it is for the larger public. It's a state in which the evolution seems to not obey any rule other than that of chance and seems strictly unpredictable. Seems only to because upon closer inspection, there is however a certain logic, but this is only possible to see using highly complex mathematic tools (attractors) which have only been available for a short time. And which made chaos fashionable. (Poncin)[12]

Consequently, Poncin emphasizes that scientific chaos theory differs from the "original chaos" of Antiquity. He also notes that scientific chaos theory offers a shocking conclusion: "the living world must be chaotic in order to function well."[13] Traditionally, literature and other domains associate chaos with complete disorder, destruction and lawlessness. This dissertation contends that contemporary literature must be chaotic to function well. Frankétienne as a mathematician and scientist was already aware of scientific chaos theory and its implications for being productive when he, with René Philoctète and Jean-Claude Fignolé, initiated the literary concept of Spiralism.[14] He was also surrounded by social and political chaos in Haiti and understood the difference between cultural and scientific chaos. Furthermore, he recognized the limits of applying a notion borrowed from scientific theory to the experience of the general public or to a particular society. Toussaint and Ernaux are however, not trained in science and

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[12] Attention! le mot chaos n'est pas exactement pour les scientifiques ce qu'il est pour le grand public. C'est un état dont l'évolution semble n'obéir à aucune autre règle que celle du hasard et semble donc strictement imprévisible. Semble seulement car à bien y regarder, il y a quand même une certaine logique, mais celle-ci n'est qu'à la portée d'outils mathématiques fort complexes (les «attracteurs») qui ne sont disponibles que depuis peu. Et qui ont mis le chaos à la mode.

[13] Le monde vivant doit être chaotique pour bien fonctionner.

[14] See the Introduction for a brief definition of Spiralism. All its tenets will be developed over the course of the following chapters.

mathematics, but are certainly susceptible to media influences as to what chaos is described and understood as in contemporary society.

For example, articles in *Le Soir* showcased Ilya Prigogine's work on chaos theory. Guy Duplat in his article "Quand la science philosophe" ("When science philosophizes") explains in layman's terms that:

> Prigogine is the one who has advanced the most the notions of irreversible phenomena in science. He showed that classical physics, with its deterministic laws, unchangeable with respect to time, were not sufficient to explain life. Only irreversibility, only 'the arrow of time' allows for the emergence of life. (Duplat)[15]

Prigogine even made an appearance on November 22, 1997 on the Belgian broadcast "Noms de dieux" ("Names of gods"). This monthly news magazine was created by former journalist Edmond Blattchen who described it as "a broadcast which reflects upon the century – that which is ending and that which is beginning – an emission which would not be submitted to the diktat of a Polaroid, which would give us the time to look for some sense in the whirl of current affairs" ("Pour une télévision").[16] The principal criteria Blattchen claims he has for the selection of his guests is "pluralism": they are not restricted to one country or one philosophical belief. Furthermore, he affirms that his show affords television viewers a chance to learn about personalities that might otherwise remain unknown by the general public: "Many viewers discover some of the invited guests for the first time [on our show]. Our mission as a non-specialized channel permits us to attract people who, without this channel, would have never been in contact with this

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[15] Prigogine est celui qui a le plus fait avancer la science dans l'analyse des phénomènes irréversibles. Il a montré que la physique classique, avec ses lois déterministes, immuables par rapport au temps, n'était pas suffisante pour expliquer la vie. Seule l'irréversibilité, seule "la flèche du temps" rend compte de l'émergence du vivant.

[16] Une émission de réflexion sur le siècle - celui qui se termine et celui qui va commencer -, une émission qui ne soit pas soumise au diktat du polaroïd, qui nous donne le temps de chercher du sens dans le tourbillon de l'actualité.

or that way of thinking".[17] Ernaux, Frankétienne or Toussaint may or may not have seen the broadcast with Prigogine. However, his appearance demonstrates that at least one Belgian media source believes that Prigogine is essential to understanding contemporary beliefs in science and philosophy.[18] As such, his appearance offers an example of the prevalence of the media presenting scientific chaos theory to a general public.

Similarly, the French media has popularized scientific chaos theory. The daily financial paper *Les Echos* (*The Echoes*) ran two editorials in early 1996 entitled "Chaos et hasard" ("Chaos and Chance") and "Vie et chaos" ("Life and Chaos"). Each article presents a layman explanation of scientific chaos theory and underscores its importance in understanding real life:

> The growing field of knowledge, in reversing ignorance, normally offers less of a risk to make a mistake, to commit errors. A richer learning curve and an increased mass of reference data should logically allow for improved anticipation. But, at the same time, the bigger the number of facts that are available that one can account for, the more the quantity of variables increases – and among those, those that have an unpredictable and changing characteristic - the learning curve becomes less pertinent and not as easy the choice of elements truly determinant for action. ("Vie et chaos")[19]

Anyone who has searched the Internet for information has encountered this very problem of increased information leading to greater uncertainty instead of greater certainty. In chaos theory, sensitivity to initial conditions, which leads to large differences in outcome, reflects this exact idea. As such, daily life and science seem to be encountering similar

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[17] Beaucoup de téléspectateurs découvrent des invités pour la première fois. Notre mission de chaîne généraliste nous permet d'attirer des gens qui, sans cela, n'auraient jamais été en contact avec telle ou telle manière de penser.

[18] See the article by Christian Laporte "Noms de dieux et la flèche du temps : Prigogine, penseur et scientifique" *Le Soir*, 22 November 1997. *LexisNexis Academic*. Web. 1 March 2010.

[19] L'élargissement du champ des connaissances, en faisant reculer l'ignorance, offre normalement moins de risque de se tromper, de commettre des erreurs. Une courbe d'expérience plus riche et une masse accrue de données de référence devraient logiquement permettre de mieux anticiper. Mais, en même temps, plus grand devient le nombre de données disponibles que l'on peut prendre en compte, plus s'accroît la quantité de variables - et, parmi celles-ci, celles qui ont un caractère aléatoire et changeant -, moins devient pertinente la courbe d'expérience et facile le choix des éléments réellement déterminants pour l'action.

problems. Thus, while the media is popularizing scientific chaos theory, the general public may already be experiencing some of the same phenomena advocated by chaos theory suggesting common themes in the contemporary ecology of ideas.

The French newspaper *Le Monde* has run a suite of articles beginning at least in 1991 in which it discusses chaos theory and its implications beyond physics.[20] *Le Monde* is a widely read and distributed newspaper not only in France but globally especially in the Francophone world. The newspaper's attention to scientific chaos theory over several years, specifically in the 1990s when the authors of this dissertation were writing, confirms that its notions and implications were readily available to the authors. This focus emphasizes chaos's particular importance scientifically and culturally. Approximately one article every two years does not constitute overwhelming proof of its validity as a strong cultural and social influence. However, these articles combined with its presence in other domains especially politics but also including the arts, suggest that chaos is one of the many elements that compose the conceptual and symbolic context of contemporary literature.[21] Finally, one of the most widely-read literary magazines in France, *Le Magazine Littéraire* published an edition entitled "La fin des certitudes" ("The End of Certainty") a title from one of Prigogine's books in which he describes chaos

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[20] See Jean-Paul Dufour "Le chaos des physiciens. En physique et en mathématiques, la théorie du chaos ouvre aux chercheurs des terrains nouveaux" *Le Monde* 29 May 1991. *LexisNexis Academic*. Web. 1 March 2010. ; Jean-Paul Dufour "L'invasion du chaos" *Le Monde*, 30 June 1993. *LexisNexis Academic*. Web. 1 March 2010. ; Jean-François Augerau and Jean-Paul Dufour, "Le chaos remet de l'ordre dans la nature" *Le Monde*, 2 February 1996. *LexisNexis Academic*. Web. 1 March 2010. ; and Jean-Paul Thomas "La flèche du temps; Du chaos à l'intuition du temps-matière avec Ilya Prigogine" *Le Monde*, 7 February 1997. *LexisNexis Academic*. Web. 1 March 2010.

[21] See Sylvie De Nussac "Le chaos Charles Cré-Ange présente au Festival d'Arles une bien décevante" Cuisse de Nymphe" *Le Monde*, 27 July 1990. *LexisNexis Academic*. Web. 1 March 2010. ; "INITIATIVES L'entreprise et le désordre : L'effet papillon." *Le Monde* 18 mars 1992. *LexisNexis Academic*. Web. 1 March 2010 ; the theatrical work "Chaos debout" performed at the Avignon festival in 1998 ; Rosita Boisseau "Le chaos analytique d'Anne-Teresa de Keersmaeker; A partir d'un texte de Peter Handke, une œuvre hybride et passionnante." *Le Monde*, 19 June 1999. *LexisNexis Academic*. Web. 1 March 2010.

theory as a requisite condition for understanding a world once dominated by Newtonian science. In this edition of *Le Magazine Littéraire*, Jean-Jacques Duby believes that "from a certain given initial condition, the succession of events is perfectly deterministic; it's the hypersensitivity to initial conditions that introduces uncertainty, or to use modern terminology, chaos" (34).[22]

A more recent article on August 27, 2004 by Jean-Claude Hazera in *Les Echos* entitled "L'attraction étrange du chaos" ("The strange attraction of chaos") reinforces that chaos was not just a fad of the late twentieth century, but that it is perhaps even stronger now. Hazera's article discusses the topic for the competition in landscaping, architecture and design at the International Festival of Gardens at the château de Chaumont-sur-Loire:

> This year, chaos. Not the "original" chaos, but the chaos which is in fashion; that of the theory of chaos. The French garden or the romantic garden was a reflection of its time. "What could our gardens resemble if they sought to be in phase with the thinking of our time? Jean-Paul Piaget, creator and great inspiration for this event, writes to explain his choice of theme […] Results? […] The creations of 2004 undulate in three dimensions and play with spirals, with "strange attractors", with fractals and the Fibonacci series. The young enthusiastic guides […] are all ready to refresh scientific culture for visitors.[23]

Not only has chaos infiltrated the physical and natural sciences, politics, economics, art and literature, but now even everyday life. Chaos indeed has become a permanent idea in our contemporary topography, this study argues, as evidenced in the French press and

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[22] [à] partir d'une condition initiale donnée, la succession des événements est parfaitement déterministe ; c'est l'hypersensibilité aux conditions initiales qui introduit l'incertain, ou, pour utiliser la terminologie moderne, le chaos.

[23] Cette année le chaos. Pas le chaos originel, mais le chaos à la mode ; celui de la théorie du chaos. Le jardin à la française ou le jardin romantique étaient les reflets de leur temps. "A quoi pourraient ressembler nos jardins s'ils cherchaient à être en phase avec la pensée de notre époque ?", écrit pour expliquer son choix Jean-Paul Pigeat, le créateur et grand inspirateur de cette manifestation. […] Résultat ? […] Les créations 2004 ondulent dans les trois dimensions et jouent avec les spirales, les « attracteurs étranges », les "fractales" et la suite de Fibonacci. De jeunes guides enthousiastes […] sont tout prêts à rafraîchir la culture scientifique des visiteurs. *The Figaro* also published an interview with Pigeat regarding his festival entitled "Une créativité née du chaos" by Fabienne Reybaud on 17 June 2004. *LexisNexis Academic*. Web. 1 March 2010.

perhaps in a strong part due to the media.[24] Consequently, analyzing contemporary literature in light of the prevalence of chaos, specifically scientific chaos in our society, allows for a better understanding of the ecology of ideas at play within the contemporary cultural topography including literature as this dissertation will argue. In essence, this monograph will argue that chaos, as defined by science, is a contemporary state of becoming evident in literature.

Many French critics have demonstrated how feminism, identity, and the quest to explore the function of writing pervade Annie Ernaux's *oeuvre*.[25] In addition, Siobhán McIlvanney claims that "Ernaux's writing points up a number of important areas in contemporary critical thought [including] the categorization of genre and its particular fluid manifestations in the realm of autobiography" (3). Ernaux has even stated: "I have this desire, I believe, to transgress established forms. When I seek to say something of strong importance, it is necessary for the form to explode as well in a certain way; one cannot do otherwise" ("Écrire").[26] Indeed her desire reflects the phenomenon most contemporary literature, and not just strictly feminine literature, is confronting: only fluid and permeable forms can accurately represent the contemporary chaotic topography.[27]

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[24] For recent articles on scientific chaos, see Michel Alberganit, "Benoît Mandelbrot, explorateur du chaos; Le mathématicien inventeur de la géométrie fractale se passionne pour des domaines, comme la finance, où la science bute sur la complexité. En assurant sa propre promotion." *Le Monde*, 25 juin 2005. *LexisNexis Academic*. Web. 1 March 2010. ; Pierre le Hir on the death of Edward Lorenz " Edward Lorenz" *Le Monde*, 23 April 2008. *LexisNexis Academic*. Web. 1 March 2010.

[25] See Warren Motte *Small Worlds: Minimalism in Contemporary French Literature*. Lincoln: University of Nebraska Press, 1999; Lyn Thomas, *Annie Ernaux: An Introduction to the Writer and Her Audience*. New York: Berg, 1999; Siobhán McIlvanney *Annie Ernaux: The Return to Origins.* London: Liverpool Press, 2001; Michèle Chossat, *Ernaux, Redonnet, Bâ et Ben Jelloun: Le personage féminin à l'aube du XXIème siècle*, Washington, DC: Peter Lang, 2002 ; and Jennifer Willging *Telling Anxiety : Anxious Narration in the Works of Marguerite Duras, Annie Ernaux, Nathalie Sarraute, and Anne Hébert*. Buffalo: University of Toronto Press, 2007.

[26] J'ai ce désir, je crois, de transgresser les formes établies. Quand je cherche à dire quelque chose de vraiment très fort, il faut que la forme éclate aussi d'une certaine manière; on ne peut pas faire autrement.

[27] Motte states in his *Small Worlds* "[Ernaux] has deliberately put the specificity of autobiography and fiction on trial, interrogating traditional notions about the possibilities of limits of those modes" (54).

Ernaux has received wide media attention in France for her works, which as discussed above plays an important role in the success of a text. Despite this media popularity and winning the Prix Renaudot in 1984 for her work *La Place* she receives more academic attention in Britain and the United States. Lyn Thomas suggests that "French academics have paid relatively little attention to Ernaux's writing. Indeed one of the main manifestations of interest in her work in France is among sociologists rather than literary critics" (143). Since the release of *Passion simple* in 1992 Thomas points out that critics from the *Nouvel Observateur* and *Madame Figaro*: "attack the popular culture version of femininity which the text represents and [the critic from the *Nouvel Observateur*] seems disturbed by the expression of female desire in literature, labeling the book 'a touch extreme'" (143). Rather than viewing Ernaux's text as representing a "pop culture version" or less intellectual version of femininity, this analysis posits that her expressions of sexuality can be productively described in relation to chaos theory which is in essence genderless. However, Ernaux favors the quotidian in her works suggesting her work belongs to the minimalist style. Chaos is inherent in the quotidian. As such, Ernaux's corpus is relevant not only for women but for men as well instead of being viewed pejoratively as a less pertinent version of feminism.

Thomas summarizes one of the dominant journalistic discourses surrounding Ernaux's *oeuvre* as an attempt "to disqualify Ernaux from the literary sphere, to argue that although her writing may be moving, powerful or popular, it is not literature"

McIlvanney in *Return to Origins* claims: "This desire for generic transgression, or cross-fertilization of genres, is commonly associated with women writers. It is variously interpreted as constituting a response to what is perceived as the androcentric rigidity of conventional generic categories; as indicative of women's relational, rather than separatist, perception of the self/other duality; and in the case of autobiography, as attributable to women's traditional lack of self-esteem and reluctance to consider themselves as suitable eminent subjects for autobiography, leading them to conflate it with other genres" (4).

(147).[28] In the same way Jean-Paul Pigeat has argued that today's gardens need to reflect contemporary thinking, Hippolyte has claimed that today's fiction should not be judged by yesterday's standards and that one must consider the "embattled positions" of today's writers in "today's cultural institutions" (2). If yesterday's autobiography categorizes many women's texts as merely venues for self-expression that may be otherwise hampered in other genres, contemporary autobiography should allow for chaotic migrations between genres in one work. Only "noisy" texts composed of various "traditional genres" which intersect and overlap can accurately capture not only the fractal and unpredictable notion of identity, but the "embattled positions" of female and male writers exploring "pop culture" or contemporary notions of identity and genre. Chaos theory offers one literary tool of investigation through which Ernaux's literary experiments may be deciphered.

Jean-Philippe Toussaint's work which privileges the quotidian like Ernaux's, has also been described as minimalist.[29] Hippolyte characterizes his narratives as "reticent": "The world of Toussaint is deceptively simple, unpredictable, and ludic. It is a world concerned with finitude and unpredictability, as seen through the eyes of a Pascalian observer, wedged between action and inaction" (25). While Hippolyte admits that the state between action and inaction serves in Toussaint's works to "mask the chaos that threatens our lives, as violence may, at any time, throw life out of balance" his analysis emphasizes the importance of this "fuzzy state" of being (27). Stump characterizes them

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[28] Thomas's analysis in Chapter 6 underscores the surprisingly subtle questioning by the French media as to the literary value of Ernaux's works due to their minimalistic form and obscene content.

[29] For more discussion on Toussaint and minimalism, see Warren Motte's *Small Worlds: Minimalism in Contemporary French Literature*, Lincoln: University of Nebraska Press, 1999 and Fieke Schoots *Passer en douce à la douane: L'écriture minimaliste de Minuit: Deville, Echenoz, Redonnet et Toussaint*, Atlanta: Rodopoi 1997.

as "unfinished." If his works have been accurately characterized as such, critics have less pursued investigating the ramifications and implications of his texts and particularly how elements of scientific chaos theory can illuminate Toussaint's investigation of narration, identity and genre.[30] From his first novel *La Salle de bain* (*The Bathroom*) divided into three chapters like a right triangle called "Paris", "Hypotenuse" and "Paris" to his latest novel *La Vérité sur Marie* (*The Truth About Marie*) passing by his contemporary reticent *polar* (detective novel) *La Réticence* (*The Reticence*) and self-portrait *Autoportrait (à l'étranger)* (*Autoportrait* (*abroad* or *to the stranger*), Toussaint's texts challenge the reader's expectations in works that offer an orderly format to mask the chaos lurking in the content. Indeed, the visible orderly structure results in reinforcing the nonlinearity of his narratives and the conventions of the genres he explores.

If Ernaux's and Toussaint's corpuses have not been examined relative to chaos theory, the analysis of Frankétienne's Spiralism cannot exist without referring to chaos theory which is the constituent structure of his *oeuvre*. Greatly influenced by the New Novel and its inclination to reject narrative linearity and traditional novelistic forms the Spiralists, Glover ascertains, "have never entirely identified with this Franco-European aesthetic philosophy. On the contrary, they have explicitly refused what they view as the propensity of the [New Novel] writers to throw up their hands in the face of literature's decline" (Sourieau and Balutansky 249). Instead of viewing the work as closed, Frankétienne derives his inspiration from modern physics, particularly chaos theory. In *Notre Librairie*, Frankétienne claims:

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[30] Schoots's work launches a discussion of minimalists' works such as Toussaint and its relation to chaos theory (see pages 128 – 137 of her work), but no other critics have ventured to develop an investigation into the relationship between contemporary French fiction and scientific chaos theory.

> I became aware of the phenomenon of chaos in all its aspects of life, that chaos was a constant and not an exception, that the glimmers of rationality were the exceptions. It's this constant, this discovery, reinforced by my scientific readings which allowed me this transporting toward this linear form of the spiral. ("Entretien" 114)[31]

Consequently, Frankétienne effectively defines a spiral composition in his preface to *Ultravocal* as one which

> constitutes a space-time continuum of which the belonging elements are susceptible to permutations, translation, exploration. Moving maps. Variable axes. Nothing is imposed on the reader who can thus evolve, in the space of the book, without being constrained to observe a pre-established itinerary. (11-12)[32]

If the New Novel rejected well-defined characters and a linear narrative, Frankétienne privileges what he terms as schizophonic writing where language, at once chaotic but also productive, becomes the principal actor in his works. At the center of this chaos and schizophony is undoubtedly Haiti. Notions of exile, zombification and the power of the voice overcoming enforced silence pervade Frankétienne's *oeuvre*. If Ernaux's works have garnered media attention that questions its literary value, Glover remarks that "[G]eographic marginalization, in addition to a rather vague theoretical stance, have led to a near-exclusion of Spiralism from consideration by many theorists of Francophone Caribbean literature" (Sourieau and Balutansky, 235). This dissertation, employing notions from chaos theory that inspired Spiralism, seeks to specifically offer the first detailed analysis across a large span of Frankétienne's corpus in order to reinforce the notion that chaos is a contemporary state of becoming. Furthermore, this investigation

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[31] J'ai pris conscience du phénomène du chaos dans tous les aspects de la vie, que le chaos était un constat et non une exception, que les lueurs de la rationalité étaient des exceptions. C'est ce constat, cette découverte, renforcés par mes lectures scientifiques qui m'ont permis cet acheminement vers cette forme linéaire de la spirale.

[32] [L]a Spirale constitue un continuum spatio-temporel dont les éléments d'appartenance sont susceptibles de permutation, de translation, d'extrapolation. Plans mobiles. Axes variables. Rien n'est imposé au lecteur qui peut ainsi évoluer, dans l'espace du livre, sans être contraint d'observer un itinéraire préétabli.

aims to demonstrate Haitian literature's relevance as an equal participant in French Caribbean studies which is primarily occupied with studies on literature from Martinique and Guadeloupe. Finally, in comparing and contrasting Frankétienne's works with that of Ernaux and Toussaint, this dissertation will bridge the critical dialogue between the Franco-European context and the Caribbean that moves beyond traditional post-colonial and subaltern studies in identifying chaos as a common thread in the contemporary topography of literary studies.

Chapter One presents chaos as a scientific, philosophical, and cultural model of the world in order to frame a contemporary cultural topography before examining its impact on literary creation. Since French mathematician Henri Poincaré's scientific work at the turn of the twentieth century, essentially two branches of chaos theory have developed. One branch primarily claims that order can emerge from chaos through self-organizing structures. This branch has been led primarily by Prigogine and Stengers. In their 1997 book *The End of Certainty: Time, Chaos and the New Laws of Nature,* Prigogine and Stengers assert that non-linear dynamics, or "chaos", is the standard not the exception through which all "systems," whether they are scientific or cultural, need to be explored. Specifically, they assert the irreversibility of time as conceptualized in their "Arrow of Time." Since the seventeenth century and English physicist, mathematician and astronomer Isaac Newton's classical dynamics, time was considered reversible where no temporal distinction existed between past and future. With the introduction of chaotic systems, the Arrow of Time establishes the difference between past and future not only introducing incertitude and irreversibility but also possibilities and probabilities. Another element of Prigoginian chaos pertinent to this investigation is bifurcation points which

are situated far from the system's center where instabilities occur. Consequently, the systems become "self-organizing" at these instabilities, modeling order *out of* chaos as well as underscoring the importance chance plays in the world. American mathematician and meteorologist Edward Lorenz's work on weather prediction ultimately formalized Poincaré's work on the importance of recognizing system sensitivity to initial conditions (i.e., small changes lead to large effects) and consequently, the second branch of chaos theory which asserts order exists *within* chaos. Notwithstanding these differences, the two branches of chaos do share some common elements including nonlinearity and complex forms demonstrating the importance of uncertainty, chance, and system fractalization. In order to remain within a Francophone context, my dissertation primarily draws from theories of Prigoginian chaos without neglecting the contribution of Lorenzian strange attractors (analyzed in Chapter Four).

Equally, Chapter One examines how contemporary French and Francophone philosophy exploits notions of scientific chaos suggesting chaos is an important cultural reference serving to bridge the two domains. French philosopher-scientist Michel Serres asserts that the concept of chaotic noise, borrowed from information theory is a constructive conduit through which the human sciences and the humanities communicate, thus affirming a complementary relationship between the "two cultures." French philosophers Gilles Deleuze and Félix Guattari describe writing in terms of smooth and striated spaces which emulate scientific concepts of chaos and order. Finally, Édouard Glissant, founder of the Antillanité movement in Martinique, claims it is the poetics of his 'chaos-world' (*le chaos-monde*) theory that will assure the future of humanity,

namely the spiraling together (acceptance and integration but not assimilation) of all cultures.

In Chapter Two this dissertation examines liberated limits of the novel, poetry, and diary genres through the concept of chaotic "noise" representing richness of information rather than a dearth in order. Spiralism, founded in 1968 by Haitian authors Frankétienne, René Philoctète and Jean-Claude Fignolé, is grounded in an aesthetic of chaos and noise. This literary movement rejects the formative power of traditional Western genres as delimited in the novel, poetry and theater in favor of constructing a chaotic reality through a non-linear, fragmented clutter of these genres in form and in function. I argue that in Frankétienne's works these remnants, liberated from their generic frames, no longer function within their established limits but coexist and collide, ultimately changing the operational force of traditional Western genres. Furthermore, Ernaux's and Toussaint's minimalist texts, although often viewed as stark and barren in style and form, actually also offer an interesting investigation of liberated generic limits examined through the lens of noise. Their works serve as an example of plot repetitions which contain slight alterations that seem only to clutter the purpose of the novel. However, this analysis shows that these repetitions are actually iterations of new information. Toussaint and Ernaux also underscore the importance of 'white noise' as a generic tool of communication. Accordingly, linear forms of communication no longer effectively function in a noisy world and notions of genre itself must be (re)considered and (re)defined.

The next chapter explores identity and genre in the works of Ernaux, Frankétienne and Toussaint through two concepts essential to chaos theory: the Arrow of Time and

bifurcation points. Viewed through the Arrow of Time identity is found in the future not in the past. Consequently, identity is not a linear development, but a development that is plagued with uncertainty, chaos and possibilities. This is an important conclusion for Francophone and other postcolonial studies as identity is a problematic entity often entangled and aligned with past her/histories. This chapter also examines identity as constructed through bifurcation points, specifically examining the role of chance and "self-organization" in its development. Bifurcation points indicate points of instability in a system. This investigation asserts that Ernaux uses marginal encounters and a marginalized aspect of a diary, photographs, to destabilize and reorganize identity and the diary genre. Alternatively, Frankétienne uses the marginalized Haitian society as the background for his textual bifurcations. Toussaint, through textual repetition as well, questions the stability of the detective novel and ultimately the novel as a genre. Finally, presenting and discussing the significance of iterations as generators of identity and memory, Chapter Three reinforces a spiral identity: one that follows a pattern of assimilation and accommodation which never returns to its precise origins but is always moving toward greater complexity.

The final chapter investigates the de-gendering of chaos through the concept of strange attractors in Ernaux, Toussaint and Frankétienne. Strange attractors serve as locations of order embedded deeply within chaos; in essence, they are points that a chaotic system returns to however divergent its trajectories. This chapter advocates that women, men, language and places within these chaotic texts by Ernaux, Frankétienne, and Toussaint serve as actual places to which chaotic narratives consistently return advocating the creative force of non-gendered chaos. For literary texts, this holds two

implications: not only can the notion of identity, love and language be viewed as fractal within their own textual space, but the texts themselves can be considered as not belonging specifically to one genre, but instead as having a main characteristic, a point of deep order, which allows these texts to be compared despite differing political and social situations surrounding their creation or generic associations. The point of deep order in Ernaux's, Toussaint's and Frankétienne's texts are diverse, but all three writers offer the possibility to view chaos not as a gendered quality but as a more neutral, universal and fluid one around which chaos with deep order is generated.

This dissertation concludes by recognizing that the contemporary cultural topography is expanding to include electronic literature as an area of critical study and consequently investigates the intimate role of chaos in reading and interpreting this emerging genre. Due to the medium of transmission, e.g., the computer code, electronic literature not only offers chaotic form and content, but also challenges traditional notions of 'reading' a text. Consequently, the reader interacts with the computer code causing the 'narrative' to bifurcate resulting in multiple, unpredictable reading experiences. A brief investigation of electronic literature and the intimate role chaos plays in reading and interpreting this emerging genre serves as a relevant segue from contemporary literature which is highly invested in innovative forms to another burgeoning, creative literary form that is exclusively located in the digital realm. This realm not only influences the success and distribution of print literature but also now serves as the location of electronic literature thus adding another level of influence requiring critical reflection.

CHAPTER ONE:

SCIENTIFIC, PHILOSOPHICAL AND LITERARY INTERPRETATIONS OF CHAOS

This chapter serves to establish a summary of scientific, philosophical and literary texts which justify this dissertation's scholarly approach to borrowing ideas from scientific chaos theory. This introduction will thus prepare the intellectual foundations to study certain contemporary French and Francophone literary texts in the subsequent chapters. The first subsection "From Chaos to Order" offers a historical review of interpretations of chaos and order in literature, science and philosophy. "Difference and Repetition" will outline various concepts borrowed from science to explain other academic domains. In the following section, "Time's Arrow" considers the question of time's direction to establish a point from which to reconsider the representation of time in literature. A review of indispensable concepts adapted from chaos theory used in the successive chapters will be presented in "Chaotic Choices." The next section, "Spirals and Noise" examines vital philosophical theories and literary critiques from fundamental, contemporary Francophone scholars whose work reflects influences from scientific chaos theory. "Literary Fractalization and Noise" reviews an innovative evaluation between the concept of scientific fractals, philosophy and literature, establishing a precedent for this investigation. Finally "Breaking It Down" suggests how this investigation will use scientific chaos to expand concepts beyond what current philosophical and literary theories are interpreting from science.

From Chaos to Order: A Question of Time

Since Antiquity, poets, philosophers and scientists have examined the role order and chaos play in the representation of the world and the human condition. Hesiod's *Theogony*, a poem written circa 750 B.C., describes the birth of the cosmos and the gods and offers a description of creation as an evolution of order out of chaos:

> Chaos was first of all, but next appeared/Broad-bosomed Earth, sure standing-place for all/The gods who live on snowy Olympus' peak,/And misty Tartarus, in a recess/Of broad-pathed earth, and Love, most beautiful/Of all the deathless gods. He makes men weak,/He overpowers the clever mind, and tames/The spirit in the breasts of men and gods./From Chaos came black Night and Erebos./And Night in turn gave to Day and Space/Whom she conceived in love to Erebos/And Earth bore starry Heaven, first, to be/An equal to herself, to cover her/All over, and to be a resting-place/Always secure, for all blessed gods. (lines 116-130)

From this chaotic beginning can be traced the organization of gods of Olympus in mythological narratives. Aristophanes' *Birds* (approximately 414 BC*)* and Ovid's *Metamorphoses* (approximately 1 AD) also locate chaos at the beginning of creation. Ovid writes:

> Before the seas and lands had been created/before the sky that covers everything,/Nature displayed a single aspect only/throughout the cosmos; Chaos was its name,/a shapeless, unwrought mass of inert bulk/and nothing more, with the discordant seeds/of discontented elements all heaped/together in anarchic disarray. (1.6-13)

According to Ovid, chaos is the "seed" from which all Nature will organize. However, order is not permanent. Chaos will overcome order and a continual order-from-chaos-from-order cycle pervades until the end of the poem. Jeanneret notes that

> At the beginning of *Metamorphoses*, the world and humanity are endlessly beginning. No sooner is form or a balance attained than it starts to vary.

> And yet an organizing god did intervene in the heart of chaos to separate the elements and assign a fixed place to earth and water, heat and cold, and various winds. Just when the initial confusion seems to be surmounted, the deluge occurs, turning the world upside down and drowning everything. For the second time, the world has to be reconquered over chaos, and this is the signal for the chronic change […]. (105)

Ovid's poet Pythagoras says:

> Everything changes and nothing can die, for the spirit/wanders wherever it wishes to, now here and now there,/living with whatever body it chooses, and passing/from feral to human and then back from human to feral,/and at no time does it ever cease existence;/and just as soft wax easily takes on a new shape,/unable to stay as it was or keep the same form,/and yet is still wax, I preach that the spirit is always/the same even though it migrates to various bodies. (15. 209-217)

Indeed, Jeanneret notes that Pythagoras "could have said: I change, thus I am" (31). Equally pre-Socratic philosophers and scientists such as Aristotle, Pythagoras, and Euclid attempted to describe and instill order in the chaotic universe. Aristotle's view on nature was, as Prigogine and Stengers summarize, that it was "organized according to final causes. The purpose of change […] [was] to realize in each being the perfection of its intelligible essence" (*Order out of Chaos*, 40). Aristotle also believed causes and their effects were reciprocal: A caused B and thus one can say B caused A. Resultantly, time to Aristotle became irrelevant as far as the order of events. Pythagoras and his school believed that reality could be represented by numbers. Euclid's *Elements* develops the basis for our modern day geometry. One of his tenets is that space is homogeneous and isotropic (identical in all directions). Consequently, Euclid could describe objects without having to consider their coordinates in space. Two cubes on a table could be accurately compared without their position on the table modifying the description. In the final

analysis, the first scientists and mathematicians considered the laws of physics in a way that was independent of time and space.[33]

On the other hand, Lucretius' atomist text *On the Nature of Things* supported the essential belief in change. As Prigogine and Stengers note:

> Yet it is well-known that the driving force behind the work of the atomists was not to debase nature but to free men from fear, the fear of any supernatural being, of any order that would transcend that of men and nature. Again and again Lucretius repeats that we have nothing to fear, that the essence of the world is the ever-changing associations of atoms and the void. (3)

As will be shown below, French philosophers Michel Serres, Gilles Deleuze, and Félix Guattari will exploit Lucretius' *clinamen*, the slight disturbance in the fall of the atoms that causes chaos in an otherwise ordered world. Ultimately, Prigogine and Stengers astutely note that similar considerations of order and chaos have pervaded humanity since Antiquity:

> in the space of a few generations, the pre-Socratics collected, discussed, and criticized some of the concepts we are still trying to organize in order to understand the relation between being and becoming, or the appearance of order out of a hypothetically undifferentiated initial environment. (38)

Defining and understanding time became central to the notions of being and becoming in the Early Modern era with Descartes.

Descartes in "Part V: the Order of the Questions of Physics" of *Discours de la Méthode* (*Discourse on the Method*) acknowledges the natural transition from chaos to order that the world has experienced,

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[33] However, Einstein's theory of relativity shows that gravity can be defined as a space curvature thus negating the isotropy of space in special conditions (Prigogine and Stengers, *Order out of Chaos* 34). Geometry based on this notion is called non-Euclidean geometry which was discovered in the nineteenth century.

So that, even if [God] had, in the beginning, given the world no other form at all but that of a chaos, provided that he has established the laws of nature, and he were to lend it his concurrence in order for nature to operate thus as it is accustomed to do, one can believe without finding fault with the miracle of creation, that by this means alone all things that are purely material could have been rendered, in the course of time, such as we see them at present. And their nature is much easier to conceive of when one sees them coming to be little by little in this manner than when one considers them only as totally finished. (67)

Descartes views time as the intrinsic condition on which order will evolve from chaos. Man does not need to mettle with chaos such that order follows. Initially, nature is chaotic but will automatically evolve to an orderly state. The major contribution brought by contemporary thinkers, Ilya Prigogine, Isabelle Stengers, and French historian Fernand Braudel, has been to try to connect the scientific notion of time to its representation and utilization in the social and cultural domain. Alvin Toffer notes in his foreword to Prigogine and Stengers's *Order out of Chaos* (translation of *La Nouvelle Alliance*, 1979) "Part of today's vast revolution in both science and culture is a reconsideration of time" (*xvii*).

Before discussing this revolutionary reconsideration of time, reviewing first how to measure time is essential to establishing a base from which Western contemporary scientific theories on order and chaos would eventually originate. Toffer cites three interpretations of time according to Braudel as

'geographical time' in which events occur over the course of eons; the much shorter 'social time' scale by which economies, states, and civilizations are measured; and the even shorter scale of 'individual time' – the history of human events […] For some [cultures] time is cyclical – history endlessly recurrent. For other cultures, [the West] included time is a highway stretched between past and future, and people or whole societies march along it. In still other cultures, human lives are seen as

stationary in time; the future advances toward us, instead of us toward it.
(*xvii – xviii*)

If different cultures view or measure time according to their traditions, the Western conception of time has not been unique and consistent through the centuries. In the Renaissance, writers and artists privileged the continual space-time metamorphosis from chaos to order. As Jeanneret states in his work *Perpetual Motion:*

> In chaos germinate the seeds of the cosmos, which itself bears the principle of its own destruction: Ronsard, like da Vinci and other tenants of transformist thought, seemed to inscribe history – natural or human-within the succession of alternations. Whether or not the cycles are regular, whether they are necessary or contingent is of no great importance. What remains is the fundamental idea that every condition is a stage, that all things tend to alteration and may metamorphose in a series of mutations with no fixed term.   The mechanism of this forward thrust already lies coiled in the heart of primitive chaos, the active core from which *perpetuum mobile* springs into action. (90-91)

This evolution in time was neither considered necessarily completely linear and unbroken: the future was not predicted by the past nor a closed circular cycle as Willis F. Overton describes: "The machine metaphor yields the Cycle of Time, and this structures change as contingent and reversible variation, with direction understood as illusory phenomenological appearance […] constructed from the simple image of the circle" (220). During the Renaissance, time was considered as advancing sporadically and inconsistently. The metaphor of the coil that launches time into irregular alternative action anticipates Overton's description of the Arrow of Time: "The Arrow of Time draws its imagery from more complex sources that involve both cycle and direction […] understood as the directionality that emerges from the repetition of non-closed cycles" (220). In essence, Overton's Arrow of Time is a spiral. This notion will be further

developed below in relation to the thermodynamic Arrow of Time, a concept which greatly influenced the development of chaos theory.

The conception of time by Renaissance writers could be summed up as a hybrid of Braudel's categories of time: not necessarily privileging a geographical, social or individual time, but rather favoring cycles alternating between chaos and order and composed of a mosaic of geographies, societies or individuals. In the seventeenth century, the need to establish order in France and to become 'modern' inspired the quest for order in science (Newtonian physics for example) as well as in language, literature and philosophy. John Lyons in his book *Kingdom of Disorder* proposes the idea of "progress" as essential in the seventeenth century 'ecology of ideas' as it spurred the pursuit of order from chaos in the theatrical and scientific domain and ultimately culturally launched seventeenth France into the 'modern era.' Lyons points up:

> How does it happen […] that such leading figures of scientific and philosophical modernism as Descartes and Pascal are still widely read [and] studied […] while the writers whose theories are said to have brought about a major continental transformation in the idea of theater are rarely read [and] almost never republished? Apparently the idea that modernism is most of all a *scientific* movement and attitude has become so deeply rooted that we forget that in the century of modernism's rise to dominance it was primarily an aesthetic and literary phenomenon. As DeJean writes "progress, rather than science, was the determining factor for the first Moderns" (*Ancients against Moderns* 15) - in other words, the seventeenth-century's sense that it possessed superiority of taste came first, and scientific progress was later invoked to buttress this initial cultural achievement. (*x*)

Notably, many modern theorists propose that classical theatre attempted to impose order on chaos through the three unities of day, place, and time. Lyons suggests thus that modern readers of seventeenth century French theatre may be tempted to view the unities

more as "the working out of certain axioms or postulates [and therefore] think of tragedy as a dramatic counterpart to the mechanistic view of the world derived from Descartes' and Bacon's new science" (140). However, Lyons concludes that in fact all the unities "are justified by appeals to an inward reality, the spectator's mind" and have nothing to do with following science's lead (140). On the contrary, I would propose that like science in this era, theatre wanted to appeal to the spectator's desire to see an *accurate* representation of the world where she lived. For example, through the unity of time the intrigue must not take more than 24 hours and thus imposes a linear time with a distinct past, present, and future. In Corneille's play *Le Cid* "temporality takes the form of genealogy" thus representing a linear recording of time (Greenberg 39). Greenberg argues however that although this genealogy "presents a world of order, of succession, of hierarchy and devolution it is not, for all that, a world impervious to chaos" (39). In *Le Cid*, King Fernand is the new king and as such his reign is still tenuous and thus "the entire social and temporal unity Fernand represents […] can be cast back into chaos" (39). Recalling the cyclical view of time from the Renaissance and Jeanneret's *perpetuum mobile*, the seventeenth century can be said to still have undercurrents of this oscillation between chaos and order despite the well-known movement of classicism which sought progress and modernity under the guise of Cartesian thought and Aristotelian-inspired theatre.

Classical comedy, specifically Molière's, also reflects the turbulent oscillations between chaos and order in the seventeenth century. While Michael S. Koppisch acknowledges that "[a] commonplace in writing about comedy emphasizes its quest for an order disturbed by the machinations of absurd or baneful characters" it is rivalries in

Molière's comedies that illustrate a need to define order between "good and evil, right and wrong, legal and illegal-that makes it possible for society to function smoothly" (16). These rivalries do not remain an effective tool for permanently juxtaposing these opposites since, according to Koppisch, the "difference between rivals is diluted as they spar with each other. Similarities in thought, word, and deed come to predominate and chaos, in which good and bad, right and wrong can no longer be so easily told apart, looms" (16). Furthermore, Koppisch recalls Serres' characterization of Tartuffe in his work *Parasite* as "the canonic example of the parasite that the host cannot reject" (59). The parasite creates chaos in the host system complicating communication and disrupting order but also driving the system to another ordered state. Accordingly, Koppisch contends that at the end of Molière's play order is reestablished but "a troubling suggestion that it cannot endure invariably hangs over the conclusions of his plays" (17). Koppisch's evaluation of Molière's plays offers another example of the instable alterations between chaos and order that is reflected in Corneille's tragedy instead of a focus on the linear passage of time to offer order and stability.

Isaac's Newton's *Principia Mathematica* of 1687 would revolutionize and define the notion of time as reversible (and thus independent of motion) which consequently led to order being exalted over chaos both culturally and scientifically for more than two centuries. Not until the early twentieth century would chaos be (re)considered as a fundamental rather than exceptional explanation of the world due to a reevaluation of the role of irreversible time.

The relationship between chaos and time is best elucidated in contemporary physics through the classical "three-body problem." Since the seventeenth century,

scientists have tried to use Newtonian classical mechanics, which is based on Euclidean geometry, to solve the 'three-body problem" (or more generally, the *n*-body problem where *n* equals the number of bodies involved in the problem). This problem seeks to find the equations of motion of three different bodies interacting with each other, such as the sun, the moon, and the earth, when one knows the mass, position, and velocity of each body. In the early twentieth century, French mathematician and physicist Henri Poincaré found that Newton's classical equations of motion (and thus Euclidean geometry) failed to solve this problem, and thus anticipated one of the primary behaviors of chaos theory known today – sensitivity to initial conditions. He states in his work *Science and Method*:

> If we knew exactly the laws of nature and the situation of the universe at the initial moment, we could predict exactly the situation of that same universe at a succeeding moment […] If that enabled us to predict the succeeding situation with *the same approximation*, that is all we require, and we should say that the phenomenon had been predicted, that it is governed by laws. But it is not always so; it may happen that small differences in the initial conditions produce very great ones in the final phenomena […] Prediction becomes impossible, and we have the fortuitous phenomenon. (original emphasis; 68)

Since Poincaré, essentially two branches of chaos theory have developed. One branch primarily claims that order emerges from chaos through self-organizing structures. The other branch asserts that order is located on a strange attractor within chaos. The former of these philosophies has been led primarily by Russian Nobel prize-winning chemist Ilya Prigogine and Belgium philosopher of science Isabelle Stengers. In their 1997 book *The End of Certainty: Time, Chaos and the New Laws of Nature* (translated from *La fin des certitudes* 1996) Prigogine and Stengers assert that non-linear dynamics, or chaos, is the standard not the exception through which all systems need to be explored:

> We live in an evolutionary universe whose roots, which lie in the fundamental laws of physics, we are now able to identify through the concept of instability associated with deterministic chaos […] Chance or probability is no longer a convenient way of accepting ignorance, but rather a part of a new, extended rationality. (155)

Specifically, Prigogine and Stengers confirm the irreversibility of time as conceptualized in their "Arrow of Time." English physicist Arthur Eddington was the first to introduce the phrase 'arrow of time' in 1929 in order to "describe the issue of directionality and irreversibility of change" (Overton 221). From the seventeenth century and Newton's classical dynamics until Einstein and relativity in the early twentieth century, time was considered reversible in physics, that is, no systemic distinction existed between past and future: velocities could be reversed (*v* becomes - *v* where the negative indicates reverse direction) and all subsequent motion and positions could be (re)calculated.[34] With the introduction of non-equilibrium physics and unstable systems, the Arrow of Time establishes the difference between past and future, introducing incertitude, irreversibility but also possibilities and probabilities.

As Prigogine and Stengers remark: "figuratively speaking, matter at equilibrium, with no arrow of time, is "blind", but with the arrow of time it begins to "see" (3).[35] Two important conclusions can be drawn:

> the system is made to go backward in time", a new "anomalous" situation is created in the sense that certain molecules are then "destined" to meet at a pre-determinable instant and to undergo a predetermined change of

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[34] For example, imagine a film of a softball being thrown from the pitcher to first base. In a Newtonian universe, reverse the velocity (-*v*) of the softball (play the film in reverse, in essence *t* becomes - *t*) and witness an exact inversion of the trajectory of the ball from first base to the pitcher. All processes could be reversed to their exact initial condition. However, to the viewer, this would seem unnatural: imagine the inverted motion of the first basewoman and the pitcher. Physically the throw would appear awkward and highly unlikely.

[35] In the example of the softball throw, with no arrow of time, the softball does not experience any difference between the throw from the pitcher to first base and back to the pitcher.

velocity at this time, however far apart they may be at the time of velocity inversion. Velocity inversion thus creates a highly organized system, and thus the molecular chaos assumption (initial conditions of a gas imply that the particles "behave independently of one another" creating molecular chaos) fails. The various collisions produce, as if by pre-established harmony, an apparently purposeful behavior. (246)

The irreversibility of time thus implies that the "the future is no longer determined by the present, and the symmetry between past and future is broken" (6). Softball throws cannot in all actuality be reversed because Newton's laws of dynamics apply only in the very particular case of a "perfect world" where forces on objects in one direction can be reversed to produce a mirror image of the movement and external factors are ignored.[36] In addition to the unnaturalness of forces, it is not possible to consider all influences on an object in order to recreate the motion in reverse. In essence, we cannot "know" without producing a collision all the information needed to establish correlations that typically are established post-collision. We cannot "set" the popcorn in its scatter pattern and velocity without having dropped it on the pan first. Resultantly, "there are two conflicting worlds, a world of trajectories (appearance) and a world of processes (nature), and there is no denying one by asserting the other. […] [Yet] how can the world of processes and the world of trajectories ever be linked?" (252). Prigogine and Stengers express this relationship in terms of being and becoming:

> Let us notice that initial conditions, as summarized in a state of the system, are associated with Being; in contrast the laws involving temporal changes are associated with Becoming. In our view, Being and Becoming are not to be opposed one to the other: they express two related aspects of reality [...] a more subtle form of reality that involves both laws and games, time and eternity. (310)

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[36] In the softball example, in Newton's world, wind velocity, air temperature, and friction from the thrower's hand and the catcher's glove, birds flying overhead, and the integrity of the players' cleats, for example can be ignored.

Possibilities (becomings) arising from irreversible thermodynamic processes (Arrow of Time) replace certitudes (being) in an attempt to understand the world. Before examining communication as an irreversible process, discussion of the direction of the Arrow of Time and additional interpretations of "time's arrow", discussed in "Time's Arrow: A Question of Perception", will enrich the notion of time and irreversibility and provide vital notions to explore literary narratives from a "scientific" perspective.

The second branch of chaos theory asserts order exists within chaos and was developed in the 1960s with Edward Lorenz's work on weather prediction. His research ultimately led to the formalization of Poincaré's work on the importance of recognizing system sensitivity to initial conditions. Lorenz found that by slightly adjusting the initial conditions, the system would exhibit large variations in its evolution over time. In spite of these large divergences, strange attractors serve as locations of order embedded deeply within this chaos; in essence they are points that a system will be drawn back to however divergent their trajectories. Unlike Prigogine's system where chaos is inherent to a system and order evolves out of chaos from self-organizing systems, the chaotic systems described by Lorenz and others (American mathematical physicist Mitchell J. Feigenbaum and French-American mathematician Benoît Mandelbrot for example) are intrinsically orderly although their trajectories would indicate otherwise. Hayles remarks: "For [strange attractor systems] the focus is on the orderly descent into chaos rather than on the organized structures that emerge from chaos" (*Chaos Bound* 10). In essence, chaos becomes an effect of the sensitivity of the system's initial conditions.

A result of this orderly descent is an increase in acquired "noise." In physics, noise is defined as "an unwanted signal or a disturbance (as static or a variation of

voltage) in an electronic communication system (as radio or television)" ("Noise" def. 1c). There are many forms of "colorful" noise relating to the spectral density (power distribution in the frequency spectrum) found in physics ranging from black to white and several colors in between such as blue, gray, pink and red.[37] Thermal or "Johnson" noise is due to fluctuations in voltage. Computer science on the other hand defines noise as "irrelevant or meaningless bits or words occurring along with desired information (as in a computer output)" ("Noise" def. 1e.). Hayles defines noise in relationship to communication as "anything that interferes with the reception of the message the sender sent – misprints in a book, lines in a TV image, static on a radio, coding errors in a telegram, mispronunciations in speech" (*Chaos Bound* 55). The further a strange attractor system is probed, the more "noise" will inevitably be produced. Unlike before, however, nonlinear dynamicists now consider the data or "noise" generated from the strange attractors to be rich in information rather than poor in organization and in meaning as this dissertation will demonstrate by studying examples of "literary" noise in Chapter Two in the works of Frankétienne, Ernaux, and Toussaint.

Difference and Repetition: A Question of Change

In his 1994 article "The Arrow of Time and the Cycle of Time: Concept of Change, Cognition, and Embodiment" Overton claims that the Arrow of Time

> is a deep metaphor entailing a relational field of both nonclosed cycles (spirals) and direction. The Arrow of Time emerges from the organic narrative. Within the context of this metaphor, and the broader organic metaphor that forms the wider conceptual context, development is understood as entailing both direction and variation. (215)

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[37] For a discussion on certain "colorful" noises see Martin J. Turner et al *Fractal Geometry in Digital Imaging*. San Diego: Academic Press, 1998.

In essence, Overton asserts that many domains in the natural and human sciences are moving away from a mechanical model perspective of the world to one of an organic perspective.[38] The mechanical model began with Newton: forces on objects were reversible and time independent. Traditional machines embody the

> uniformity, stability, and linearity. Entities framed by machine categories are necessarily understood as operating according to a simple complexity that is additively decomposable. The whole is the additive sum of independent isolated parts that can be represented as a series of disjuncts and/or conjuncts. (222)

This mechanical linearity and stability in turn suggests closed cycles of evolution such as a motor. The intrinsic assumption of a machine is its continuous steady state reinforcing the metaphor of the Cycle of Time and creates a narrative that Overton characterizes as follows:

> The machine metaphor generates metatheoretical narratives that represent the domain under examination as fundamentally uniform, fixed, reactive, isolated, linear. Thus, in metatheoretical terms, when the person is represented by this metaphor, he or she is understood either as the outward manifestation (responses, behaviors, declarative and procedural knowledge, representations) of additive historical contingencies (reinforcements, stimuli, information) or as a list of mechanisms that constitute the machine itself (input systems, central processing systems, storage systems, output systems). (222)

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[38] Paul Ricœur in his work *La Métaphore Vive* (translated as *The Rule of Metaphor*) addresses the role of metaphor not only in literature but in philosophy and science offering another example of a link between the three domains. He astutely recalls Max Black's work on models and metaphors between art and science: "metaphor is to poetic language what model is to scientific language concerning the relation to the real. (la métaphore est au langage poétique ce que le modèle est au langage scientifique quant à la relation au réel)" (302). Ricoeur examines the meaning of the metaphor across various linguistic levels: word, phrase, and hermeneutical level. This analysis proposes that Ricœur's theory on metaphor is essentially rhizomatic or fractal as his notion of metaphor is not arborescent: one linguistic level of metaphor does not replace the other. They tend to share some qualities at specific points but spread in other directions at others.

This narrative simultaneously represents a Cartesian-Newtonian view of the world as well as a structuralist perspective across the domains of philosophy, science, sociology and art.

In opposition to this mechanical narrative, Overton asserts the primacy of the organic narrative and the organic metaphor of the Arrow of Time in understanding concepts of change. The spiral adequately illustrates the movement and integrity of the organic narrative which Overton describes as "interpretational, holistic, relational-dialectic [and] directional" (215). Unlike the Cycle of Time metaphor, however, the Arrow of Time is not closed but "draws its imagery from more complex sources that involve both cycle and direction" (220). The Arrow of Time describes a change that involves an integration of repetition but also advancement simultaneously. Visually, Overton describes the Arrow of Time as an advancing spiral or as a chambered nautilus, "a shell with minute inner spirals that successively widen and progressively form a broad spiral that yields overall direction – a vivid natural image of an arrow of growth" (211). The nautilus also embodies the notion of a fractal in non-linear dynamics as will be discussed in Chapter Four. A fractal retains recursive levels of symmetry at each magnitude of measurement where each level is representative of the symmetry of the entire system.

This metamorphosis of time can be viewed as an iterative process, a continual feedback loop in the sense that final conditions of one phase serve as the initial conditions of the next phase. However, the iteration never fully returns on itself: the system evolves into new states which in turn generate new iterations. Overton recalls

Swiss philosopher and psychologist Jean Piaget's assimilation/accommodation psychology which emulates this iterative process:

> Assimilation/accommodation defines the relational activity matrix – not isolated, independent processes. Assimilation is the thesis – the part of the process that affirms, integrates, and regulates the system. This is the conservative activity that imposes itself on the surroundings and makes the surroundings like itself. Accommodation is logically secondary. It is antithesis – the part of the process that negates, differentiates, transforms the system. Assimilation imposes necessity, and accommodation opens possibility. As the process cycles between assimilation and accommodation, no single cycle returns to its precise beginning but ascends toward greater complexity and coordination. (226)

The Arrow of Time thus conceived also debunks Freud's mechanical categories and "directionless change" similar to the Cycle of Time theory. Overton quotes W. Ronald D. Fairbain's theory and in particular points out that

> Freud's mechanical, atomistic position of an inherent separation of energy (i.e., libido) and structure (i.e., ego) leads necessarily to the position that the only change possible, outside of one that disturbs the system (itself reversible and directionless), 'is one which makes for the establishment of an equilibrium of forces, i.e., directionless change.' (226)

Freud believes the libido, designated as energy, is disconnected from the ego, defined as the structure. In general the libido seeks pleasure to relieve its own tension. Thus Fairbain argues that Freud's "direction" of the libido's desire is toward itself, and thus does not have an exterior, designated target or direction. So the act of the libido satisfying its desires is cyclical and directionless. The quest for satisfying pleasure always leads back to the libido. To be evolutionary, Fairbain argues that the libido would have to be primarily "object-seeking, and […] the tension which demands relief is the tension of the object-seeking tendencies. This means that for me, libido has direction" (Fairbain 149). As the object of desire changed, so would the 'direction' of the libido's energy. Fairbain

makes a salient point regarding the relationship between Freud's psychology and its link to physics:

> Freud's divorce of energy [libido] from structure [ego] represents a limitation imposed upon his thought by the general scientific atmosphere of the day. It is a curious feature of modern times that the scientific atmosphere of a period always seems to be dominated by the current conception of physics. Be that as it may, the scientific atmosphere of Freud's day was largely dominated by the Helmholtzian conception that the universe consisted in a conglomeration of inert, immutable and indivisible particles to which motion was imparted by a fixed energy separate from the particles. However, modern atomic physics has changed all that. (150)

Fairbain argued for a dynamical systems approach that energy and structure are inseparable and that any changes would require a directional evolution involving both energy and structure. To conclude, Fairbain's analysis of the influence of the 'physics of the day' in the scientific arena echoes Lyons's point made earlier that the science of Descartes and Bacon is (mistakenly) seen as influencing the standard for classical theatre. Admittedly, Freud and Fairbain do seem to be influenced by physics; however their domain, psychology, is a science, whereas theatre is not in the traditional sense. What is relevant to this analysis is the fact that the contemporary "physics of the day", or "chaos theory" is not influencing the development of literature, but as Lyons points up, the trends in both domains (science and literature) are a result of chaos in general being one of many ideas in an ecology of ideas.

Time's Arrow: A Question of Direction and Perception

In physics, the second law of thermodynamics rejected Newtonian dynamics' Cycle of Time in favor of the Arrow of Time. The second law of thermodynamics states that

> all isolated systems – including the universe itself as the ideal isolated system – move in a direction toward maximally diffuse or random states. This irreversible process, this inherent direction, is measured by the quantity termed entropy, a signpost to the direction of time: "Increasing entropy corresponds to the spontaneous evolution of the system. Entropy thus becomes an 'indicator of evolution,' or an 'Arrow of Time' […] For all isolated systems, the future is the direction of increasing entropy.'(Prigogine and Stengers, 1984, 119)." (Overton 227)

Entropy in thermodynamics is the Arrow of Time in the sense that systems evolve toward higher entropy and usually do not reverse (a hot cup of coffee will not turn cold and then spontaneously return to its initial hot state). It is this notion of irreversibility that Prigogine and Stengers use as the basis for their Arrow of Time in their order-out-of-chaos paradigm. A question that still looms large, however, is how can the evolution toward increasing entropy be defined in terms of a physical direction? That is, does Prigogine and Stengers' Arrow of Time advance in a linear fashion into the future or does it progress in a different manner? This question is pertinent to this analysis in light of Western linear and Eastern non-linear views on history, identity and ultimately the evolution of order and chaos.

The notion of advancement in all the above examples projects an image of change evolving to the future temporally (repetition but also advancement which implies ultimate forward movement and not a return to the beginning). As will be discussed in the section "Spirals and Noise" of this chapter, Édouard Glissant, a French philosopher and writer

from Martinique and founder of the *Antillanité* movement, suggests that time moves in a spiral just as Overton's Arrow and Piaget's model. Overton points out a dilemma with the entropic arrow: "[T]he molecular laws of motion are themselves directionless. They would allow the increase in entropy in either direction" (228). That is to say, the molecular laws of motion do not indicate one direction as being "forward" and another being "backward," "east" or "west," or even "north" or "south." The thermodynamic arrow is thus "directionless" physically, but indicates a quantitative increase in entropy over time. This question inevitably leads to understanding our perception of the direction of time and change.

Philosophy suggests four other types of arrows of time which may illuminate human temporal understanding of "evolution": the psychological arrow, the mutability arrow, the epistemological arrow, and the explanation-causation-counterfactual arrow. We believe psychologically that we cannot change the past but can affect the future, thus the past is not mutable but the future is, which implies epistemologically that we can know more about the past than the future. Consequently, we can offer explanations of what caused an event to take place as opposed to explanations of what will happen in the future. Huw Price suggests causal perspectivalism as a means of explaining human beings' experience of time and thus our view that causation is asymmetrical

> There is a genuine asymmetry in our deliberative practice – namely, roughly, the fact that our deliberations are future-directed but not past-directed – and this calls for explanation. In the end then, this temporal asymmetry needs to be explained in terms of some temporal asymmetry in our own physical constitution, or in our environment, or some combination of the two. (Price 236)

One option Price proposes as a solution to our asymmetric deliberative practice is an objective non-causal asymmetry: a thermodynamic gradient. That is, do the ways that we characterize the increase in entropy explain our view of asymmetric causation? Another dilemma is making a disciplinary leap from the sciences (thermodynamic arrow) to human perception of time (the other arrows as offered by Overton, Glissant and Piaget). While using the thermodynamic Arrow of Time as a base for the other Arrows of Time is still being debated, it is clear that these arrows reject the Cycle of Time and the mechanical metaphor of closed cycles. These arrows do contain simultaneous repetition and advancement as proposed by Overton's spiral Arrow of Time. The directedness is still under question.

Chaotic Choices: Bifurcations and Metaphors

The irreversibility of time as defined in the second law of thermodynamics encouraged further work on non-linear dynamics or chaos theory. In addition to the Arrow of Time, another fundamental element of Prigoginian chaos is bifurcation points. Essentially these points exist far from the center where a system will become unstable. A system may be defined as chaotic or orderly; the only qualifier for a "system" is its boundaries and not necessarily the "order" or "disorder" of the particles found within it. Fluctuations or dissipative structures at these points then influence the "choice" a system makes as to its next state. This "choice", according to Prigogine and Stengers, is completely random. The system does not prefer one state over the other; we can only talk about probabilities and chance which replace certitudes. A chaotic system then becomes "self-organizing" choosing a stable or unstable state that leads to another bifurcation

point which leads to more "choices." As a result, order and chaos are complementary with order resulting from chaos in an open cycle as Prigogine and Stengers assert in *Order Out of Chaos: Man's New Dialogue with Nature* (*La Nouvelle Alliance*). This complementary relationship recalls the sporadic alterations between chaos and order advocated by Renaissance artists such as Ronsard and Da Vinci mentioned here above.

The iterations between order and chaos are neither cyclical, nor linear, but resemble more the Arrow of Time as represented visually in Overton's chambered nautilus or conceptually in Piaget's theory of assimilation/accommodation: while the inputs from order and chaos are registered in the bifurcation-self-organizing process, new states are always created. The past development of these states cannot be reproduced or retraced due to the role of chance in their development. Overton continues: "[T]he evolution of a system can still be understood in terms of a target, goal, or attractor. In this case, however, it is not a fixed-point attractor but what is called a strange or chaotic attractor" (229). The concepts of strange attractors in chaos theory will be discussed in detail in Chapter Four.

Like the mechanical metaphor for the Cycle of Time, relevant to this analysis, the Arrow of Time is a metaphor within chaos theory: "Recent investigations on the subject of self-organization and in the field of deterministic chaos and complexity support the narrative plausibility that the [second] law [of thermodynamics], in fact opened the door to establishing the metaphor of the Arrow of Time as the rule rather than the exception in both the natural and social sciences" (Overton 228). Furthermore, chaos theory itself has been taken as an explicit metaphor in other disciplines. Peter Weingart and Sabine Maasen point up the use of non-linear models in micro- and macro-economics, chaotic

attractors in the brain sciences, and self-organizing theories in psychoanalysis. In all these domains, chaos theory has served to enlighten these domains in areas that previously had been either been ill-defined or inexplicable. As a result, Weingart and Maasen suggest three theories of metaphors in their analysis of the role of chaos as a contemporary metaphor: semantic, pragmatic, and constructive:

> *Semantic theories* of metaphors draw attention to the possibility that, ultimately, both the term chaos and the importing discourse may change each other. Moreover, they stress that there are positive, negative, and neutral analogies, which have to be analyzed for each interaction separately, as different discourses become attracted to different aspects of chaos. (483)

Semantic theory proposes that metaphors represent a familiar idea to the adopting discourse. In essence, Weingart and Maasen use Max Black and Mary Hesse's semantic theory of metaphors which asserts that one discourse (the primary) in order to better describe a process may borrow a term from another discourse (the secondary).[39] As a result, the two discourses will interact and

> This interaction might presuppose an initial similarity or comparability of phenomena and their associated meanings. According to Black, however, it is the metaphor that actively evokes this process that ultimately will lead to a mutual transfer of meanings or aspects of them. For the often-cited example "man is a wolf," it is held that it eventually would make man more wolf like, and in turn would make the wolf appear more human. *Semantic theories thus are about shifting meanings in both metaphor and context*. (original emphasis; 476)

Secondly, some discourses will view metaphors in a positive, neutral or negative light. Pertinent to this analysis are the two interpretations of the relationship between chaos and

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[39] See Max Black, *Models and Metaphors: Studies in Language and Philosophy* (Ithaca, N.Y.: Cornell University Press, 1962); Mary Hesse, "The Explanatory Function of Metaphor," in *Logic, Methodology, and Philosophy of Science,* 7th ed., ed. Yehuda Bar-Hillel (Amsterdam: Elsevier, 1972), pp. 249-259.

order. Prigogine and Stengers advocate an order out of chaos relationship, while Lorentz, Mandelbrot and others suggest and order within chaos correlation. Accordingly Weingart and Maasen point up that some will be drawn to the assurance of stability and order within chaos while others will be attracted to the possibility of chaos serving as the principle reality and thus chaos

> unites opposing (research, political, . . .) interests. The ambiguity in term and message corresponds to the mixed science- theoretical appeal of chaos theory: Either nonlinear dynamics is seen as a way to bring complex behavior within the scope of rational analysis (e.g., physical sciences), or it is embraced because it is seen as resisting totalizing theories (e.g., literary studies). (482)

As Hayles confirms: "This double edge to the current preoccupation with chaos […] suggests that disciplinary traditions can play crucial roles in determining how isomorphic ideas are valued and interpreted" (*Chaos Bound xiv*). As an example, Weingart and Maasen cite Tom Peters' book *Thriving on Chaos: Handbook for a management revolution.* Peters was debating whether the title should be *Thriving amidst Chaos* or *Thriving on Chaos*. He explains his choice:

> To thrive 'amidst' chaos means to cope or come to grips with it, to succeed in spite of it. But that is too reactive an approach, and misses the point. The true objective is to take the chaos as given and learn to thrive on it. The winners of tomorrow will deal proactively with chaos, will look at chaos per se as the source of market advantage, not as a problem to get around. Chaos and uncertainty are (will be) market opportunities for the wise; capitalizing on fleeting market anomalies will be the successful business's greatest accomplishment. It is with that in mind that we must proceed. (*xiv*)

Clearly Peters is attracted positively to the order out of chaos model. Cardiology and the cause of sudden death first offered then challenged the positive/neutral/negative analogy with chaos. Weingart and Maasen explain in their example that just before death the

human heartbeat is characterized as chaotic. The predominant *non-scientific* view of chaos is that it is the opposite of order and therefore this "chaotic" heartbeat just before death was associated with malfunction. However, after more study and a *scientific* understanding of chaos, cardiologists discovered that a "normal" heartbeat is largely chaotic and so chaos came to be associated with good health. Weingart and Maasen note:

> Chaos, in this case, functioned as a heuristic cage: irregularities must be seen as pathologies, and do not allow for divergent observations. The interpretive switch--in this case, at least--seems to indicate an epistemological switch: as long as the metaphor was embedded in the traditional reasoning of the medical system, chaos was bound to account for the pathological; only by taking recourse to the epistemological consequences of chaos theory (complex systems show noisy periodicity) could the heart's noisy periodicity be regarded as the normal, and sudden death [according to Goldberger and Rigney] "as a bifurcation *out of*, not *into* chaos" (25). Or, to put it in terms of disciplinary power: The switch from the pathological to the normal (Canguilhem) indicates the moment when the importing physiological discourse accepted the epistemological consequences of the chaos metaphor. Presumably due to the double resonance of chaos (theoretical and pre-theoretical), the physiologists were tempted to fall for the initial option: to look for disorder (i.e., the chaotic heart state), and explain it with the pertinent approach (i.e., chaos theory). (516)

Returning to theories on metaphors, Peters' example on management theory and its relationship to chaos leads to a second theory on metaphors that Weingart and Maasen propose:

> *Pragmatic theories* of metaphors highlight the importance of a new term's having to be processed in the importing discourse in order to make sense. In any discourse outside physics, one may expect more or less elaborate variations of uses aimed at integrating it into the existing corpus of knowledge (e.g., into management theories or public debates). (483)

Pragmatic theory suggests that metaphors will often be unfamiliar to the adopting discourse. Management theory is not grounded in quantitative but qualitative

measurement. Thus, incorporating terms from chaos theory in metaphorical ways can offer a sense of scientific credibility. Furthermore, the technical details of chaos theory will be converted into generalities that can be applied in management operations.

In chaos theory, non-linear systems go through bifurcations which lead either to self-organization or continued chaos. Metaphorically, market fluctuations can be viewed as 'bifurcations' which lead to self-organizing gains or continued losses. Innovation is also a chaotic state which can self-organize or not. Mathematical calculations will not describe this process, but qualitatively the innovative process can be evaluated as self-organizing: some inventions lead to more streamlined production, some do not in which case the state of production could be riddled with chaos until another innovation is found.

The third theory of metaphors is constructivist:

> *Constructivist theories* highlight the observation that once a term has been successfully integrated into one discourse, this result stimulates further applications (e.g., the term *chaos* may then be considered helpful in a political debate), in the course of which various discourses connect to chaos--the latter thus assuming the role of a *dispositif*, which again contributes to distributing a "new vocabulary," to which further discourses are attracted. (original emphasis; 482)

Again, like pragmatic theories, constructivist theories consider the term adopted into the primary discourse as unfamiliar. In short, "*constructivist theories are about inventing a new language game capable of integrating metaphor and context in a meaningful way*" (original emphasis; 477). First, Weingart and Maasen offer psychotherapy as an example of integrating an unfamiliar metaphor of strange attractors into its discourse on family-systems therapy. Essentially, family-system therapy assesses that conflicts do not center on one event (which typically leads the family to therapy), but conflicts can be traced to the inner workings of the family as a whole. It is the therapist's goal to find the 'strange

attractor' which tends to destabilize the family-system.[40] Psychotherapists have access to patients who can personally *describe* their instances of chaos to order (self-organization) and thus may offer greater insight into self-organizing processes than simply observing experiments in a laboratory (504).

In conclusion, the metaphors derived from chaos theory pervade many domains outside of physics as witnessed in the domains reviewed in this analysis including economics, business management, medicine, and psychotherapy. This appropriation constitutes a transfer of knowledge which can be viewed as an iterative process: Domain A appropriates a term from Domain B as a metaphor. In turn the appropriated metaphor encourages new knowledge about the metaphor which may serve as initial input back into Domaine B's understanding of its own term. Indeed regarding the actual process of knowledge transfer from Domain A to Domain B and sometimes back to Domain A, Weingart and Maasen suggest that

> A carefully designed tool to analyze the evolution of knowledge both within and across (specialized) discourses, metaphor analysis thus allows us to observe knowledge dynamics as a cultural process. Units of knowledge wander between different local sites and eventually constitute a "cultural matrix." Chaos, in our view, serves as a fascinating example of the mechanisms and intricacies underlying this process. Most observers of its career in different cultural discourses regard this process as chaotic; interestingly enough, they may be right, if for reasons unknown to them. While their parlance is pejorative, we intend to argue from the sidelines that the dynamics of metaphoric transfer of knowledge indeed shows features characteristic of chaos theory. (478-479)

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[40]Weingart and Maasen paraphrase Linda Chamberlains' work in her chapter "Strange Attractors in Patterns of Family Interaction," in Robertson and Combs, *Chaos Theory in Psychology and the Life Sciences* "Simply stated, if there is an imbalance in the expression of love or fear in the family, the task is to assist the family in redirecting their energy and attention to the attractor point that is being avoided or denied in order to allow the family to shift to a different level of functioning"(502).

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 Fittingly, the process which transfers the knowledge of chaos is also chaotic. Literature has also appropriated chaos as a metaphor either implicitly or explicitly, and either semantically, pragmatically or constructively.

Spirals and Noise: A Question of Communication

Edouard Glissant in his 1994 essay "Le Chaos-Monde: l'oral et l'écrit," describes the broken symmetry of time in terms of the spiraling *chaos-monde* (chaos-world). According to Glissant, the *chaos-monde* dismantles the Occidental founding myth which by extension has legitimized colonization and what he asserts is the "the claim on [human] beings which organizes the human accession ladder" (112).[41] The Western founding myths are generally written down, and the narrative advances linearly in time. This permanent recording by the West continually justifies its dominance over others, never retreating or looping back to (re)consider its claims on others. On the other hand, Glissant claims that the Caribbean countries do not have written founding myths like the West, as Caribbean myths originate in the oral tradition requiring memory and repetition but also allowing variations to survive. Resultantly, time is not necessarily measured linearly in the Caribbean but is imagined as a spiral:

> We have a conception of time as a spiral which corresponds neither to linear time of Westerners nor circular time of the Pre-Columbians or Asian philosophers, but is a sort of result of the two, that is, with a circular movement always escaping from this circularity toward something else – that is what constitutes the spiral. (123)[42]

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[41] prétention à l'être […] qui organise des échelles d'accession à l'humain.
[42] Nous avons une conception du temps en spirale qui ne correspond ni au temps linéaire des Occidentaux ni au temps circulaire des Précolombiens ou des philosophes asiatiques, mais qui est une sorte de résultat des deux, c'est-à-dire avec un mouvement circulaire mais toujours une échappée de cette circularité vers autre chose – c'est ce qui constitue la spirale.

Hence time viewed as a spiral will serve to replace the Occidental founding myths by rejecting a linear or circular origin of time, history, and ultimately dominance and legitimacy. The spiral of time moves forward, however there is always a slight return on itself, a (re/new(ed))consideration of events such that a founding myth never remains permanent, but is always evolving. This image exactly emulates the Overton's spiraling Arrow of Time as represented in the chambered nautilus which he characterizes as "a shell with minute inner spirals that successively widen and progressively form a broad spiral that yields and overall direction - a vivid image of an arrow of growth" (221).

This notion is also similar to Gilles Deleuze and Félix Guattari's rhizomes and their chaotic, non-arborescent nature.[43] Glissant's spiral of time does not permit a fixed point from which all history is based. Like the rhizomes that can "spill over" into other areas, Glissant's spiral is continually advancing into other areas as it moves forward, not allowing for a fixed point of reference. Michel Serres[44] offers another interpretation of myth that touches on Glissant's distinction between the purposes of written and oral myths and their authority:

> In a culture with an oral tradition, story takes the place of schema […] Myth, then […] is less a legend of origin than the very form of transmission; it does not bear witness to the emergence of science [or authority in Glissant's case] so much as it communicates an element of science […] The schema is the invariant of the tale instead of the tale being the origin of the schema. (*Hermes: Literature* 88)

As such, the Glissantian spiral of time will establish a new *poétique* to replace these former Western myths, a poetic that will embrace all cultures, in essence the *chaos-*

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[43] See "From Oedipus to Schizophrenia" of this analysis for a formal presentation on Deleuze and Guattari's rhizomes.
[44] See "Spirals and Noise" of this analysis for a formal presentation on Michel Serres' philosophy.

monde where "it does not suffice to "understand" a culture in order to truly respect it. For this, one must accept that this culture opposes you with something irreducible and that you will integrate this irreducible in your relation to this culture" (Glissant, "Le chaos-monde" 129).[45] The trace of the spiral which moves forward but also loops back quintessentially embodies the integration and acceptance of the "irreducible" in other cultures. Instead of marching forward linearly, assimilating different cultures into one's own, the Glissantian spiral allows for forward progress in relations between cultures. However, the loop back demands not assimilation but a continual integration of cultures without one culture being subsumed by others. According to Glissant the poet has the primary responsibility to bring to the surface through *une parole éclatée* ("a bursting or exploding speech") this new poetic, which is all the chaotic churnings of the world which have been suppressed by the Occident. Consequently "It's the poetics even of this chaos-world which contain the reserves of the future of humanity of today" (124).[46]

Similar to chaos envisioned in the Renaissance "the wellspring of life's promise" (Jeanneret 82) and to Prigogine and Stengers' interpretation, "life, far from being outside the natural order, appears as the supreme expression of the self-organizing processes [of chaos] that occur" (*Order out of Chaos* 175). Glissantian chaos is constructive, not destructive, and it will assure the future of humanity: "Chaos does not mean disorder, void, introduction to the void, chaos means the confrontment, harmony, conciliation, opposition, rupture, joining between all these dimensions" (Glissant, "Le chaos-monde"

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[45] il ne suffit pas de 'comprendre' une culture pour la respecter vraiment. Pour cela, il faut accepter que cette culture vous oppose quelque chose d'irréductible et que vous intégriez cet irréductible dans votre relation à cette culture.

[46] c'est la poétique même de ce chaos-monde qui contient les réserves d'avenir des humanités d'aujourd'hui.

124).[47] The movement of the spiral embodies this definition of chaos. As the poet must

disperse the poetics of this chaos in order to assure the future of humanity, literature is an

appropriate medium through which to reveal this chaos.

Frankétienne will also appropriate the notion of chaos and the spiral in his literary

aesthetic. Glissant's notion of chaos and the spiral are located in the domain of myth and

his interpretation of chaos and the spiral is creative in nature thus changing not only a

traditional non-scientific view of chaos as devastating but also the view of the spiral as

incoherent and dizzying. Frankétienne, on the other hand, appropriates the notion of

scientific chaos explicitly to create his literary movement, Spiralism:

> The spiral represents a new genre which allows the translation of the
> palpitations of the modern world. A spiral work is constantly in motion. It
> is this that explains in part a suite of ruptures in the development of the
> text. Furthermore, it is not at all necessary to construct the work from a
> particular subject. Writing becomes from this point forward a true
> adventure, that of a multipolar story where each word, playing the role of
> the trigger, is susceptible to transform itself into a core ready to split apart
> in order to give birth to other verbal entities. In this sense, the spiral is
> ultimately an open work never finished. The spiral is an attempt to capture
> the real in the diversity of its aspects. (Kauss) [48]

Recalling Overton's notion of the organic narrative, Frankétienne's spiralist works are

equally in constant motion, in constant transformation and are ultimately never finished.

Most importantly, the spiral, an essential element in Overton's concept, is the base from

which Frankétienne created his literary aesthetic founded on chaos, the scientific concept

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[47] chaos ne veut pas dire désordre, néant, introduction au néant, chaos veut dire affrontement, harmonie, conciliation, opposition, rupture, jointure entre toutes ces dimensions.
[48] La spirale représente un genre nouveau qui permet de traduire les palpitations du monde moderne. L'œuvre spirale est constamment en mouvement. C'est ce qui explique en partie cette suite de ruptures dans le développement du texte. D'ailleurs, il n'est nullement nécessaire de construire l'œuvre à partir d'un sujet précis. Écrire devient dès lors une véritable aventure, celle d'un récit multipolaire où chaque mot, jouant le rôle de déclic, est susceptible de se transformer en noyau prêt à se désagréger pour donner naissance à d'autres entités verbales. En ce sens, la spirale est fondamentalement une œuvre ouverte, jamais achevée. La spirale est une tentative de saisir le réel dans la diversité de ses aspects.

that accurately characterizes a non-linear world and ultimately reality. The spiral which is always changing and advancing captures the chaos of the modern world.

The relationship between myth, philosophy and science is critical to Michel Serres, a French philosopher and a scientist, who is also concerned with the interplay of communication, chaos, and information theory. To initiate this interplay, Serres advocates specifically that "whether knowledge is written in philosophical, literary or scientific language it nevertheless articulates a common set of problems that transcends academic disciplines and artificial boundaries" (*Hermes: Literature xi*). Relevant to this analysis, Serres claims that "It is not, it has never been the case that science is on one side and myth on the other. In a given myth, millennial tradition, or barbarous thought, the proportion of relevant science is probably as great as the proportion of mythology that envelops any given science" (Harari and Bell translation; *Hermes III* 258). Serres primarily uses myth to bridge literature with philosophy and science. In *Feux et Signaux de Brume: Zola*, Serres asserts that "Mythical discourse is a venture in weaving; a junction, a connection between places that are closed, isolated, inviolable, inaccessible, dangerous, or mortal - disconnected, in any case. The weaving accomplished, one can speak of science" (169).[49] However, myth does not end in science. As Josué V. Harari and David F. Bell point out in their introduction to Serres' *Hermes: Literature, Science, Philosophy*: "weaving of disparate spaces accomplished by myth results in the birth of science, on the other hand, it creates a new field in which the work of connecting and disconnecting will continue, namely, *literature*" (original emphasis; *xxxiii*). However, the "mythical" bridge is not always easy to find or to traverse. Harari and Bell claim that

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[49] Le discours mythique est une entreprise de tissage; de raccordement et de connexion entre des lieux fermés, isolés, inviolables, inaccessibles, dangereux ou mortels, non connexes en tout cas. Le tissage réalisé, on peut parler de science.

"there exists a passage (or passages) between the exact sciences […] and the sciences of man. […] Such an itinerary is complicated for at least two reasons: […] the *nature* of knowledge […] and the *evolution* of modern knowledge" (*xi-xii*).

Regarding the *nature* of knowledge, they underline the long tradition of separating the academic domains of the hard sciences and the humanities. Consequently, the world consists of "scientists without culture (educated but not "cultivated") and humanists without scientific knowledge (cultivated but not "educated")" (*xii*). Regarding the *evolution* of modern knowledge, Harari and Bell observe that on one side of the "knowledge" bridge modern science becomes increasingly complex. Consequently, smaller and more specific research areas appear. Fundamentally, this trend isolates researchers in these domains, denies access to information to the general public due to its obscure specialization, and renders science more a trade than quest for knowledge as fewer people are involved in the knowledge creation process.

On the "literary side" of the bridge Bruno Vercier and Jacques Lecarme acknowledge a similar partitioning of the reading public of late twentieth century French literature:

> We participate in a parceling of the literary field, in an atomization of the public in subsets relatively confined although it is not out of the question that these writings in the long term, which form a group which is at once the subject of election and the privileged addressee, can attain through oblique ways, the universal. (12)[50]

As French literature from this era attempts to address the chaos pervading society, forcibly smaller and smaller reading groups will develop relative to the style and topic of

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[50] On assiste à une parcellarisation du champ littéraire, à une atomisation du public en sous-ensembles relativement clos bien qu'il ne soit pas exclu qu'à long terme ces écritures, qui font d'un groupe à la fois le sujet d'élection et le destinataire privilégié, puissent atteindre, par des voies détournées, l'universel.

discourse. However, Vercier and Lecarme acknowledge that it is not impossible for one of these "subsets" of novels to become universally read across all readerships. Furthermore, these literary works do not necessarily become 'inaccessible' in the sense that Harari and Bell suggest the knowledge generated by the scientific community has become. However, the lack of an encompassing literary movement can be viewed as literature 'losing its broad reach' to the reading community as a whole and thus only implicating smaller and isolated communities of readers in the knowledge creation process. In the final analysis, both communities on either side of the "Serresian" mythical bridge are becoming more and more isolated rendering communication difficult not only across the bridge *between* science and literature, but also *within* each knowledge-generating community (scientific and literary).

In spite of this increasingly complex and isolating labyrinth of knowledge, Serres appropriates the model of information theory to explain the often difficult but existing path of communication between science and literature. Serres in his work *Le Parasite* (*The Parasite*) discusses the vocabulary of the parasite as borrowed from communication theory and acoustical physics. To illustrate his meaning, he uses the story of the county and the city mouse:

> One parasite (static), in the sense that information theory uses the word, chases another, in the anthropological sense. Communication theory is in charge of the system; it can break it down or let if function depending on the signal. A parasite, physical, acoustic, informational, belonging to order and disorder, a new voice, an important one, in the contrapuntal matrix. (6)

In his essay "Platonic Dialogue" Serres underscores the similarities between communication between humans and between machines

> Pathology of communication is not only a fact of writing. It also exists in spoken languages: stammerings, mispronunciations, regional accents, dysphonias, and cacophonies. Likewise in the technical means of communication: background noise, jamming, static, cut-offs, hysteresis, various interruptions. If static is accidental, background noise is essential to communication. (*Hermes: Literature* 66)

According to Serres, the parasite or noise belongs to both order and disorder. A traditional understanding of the function of the parasite evokes a host system that is thrown into disorder. Serres associates however the notion of parasite with "noise" as understood in physics as defined in the section "From Chaos to Order" of this chapter. Nevertheless, in this instance, the parasite belongs to both order and chaos. Thus follows one of his theorems:

> noise gives rise to a new system, an order that is more complex than the simple chain. This parasite interrupts at first glance, consolidates when you look again. The city rat gets used to it, is vaccinated, becomes immune. The town makes noise, but the noise makes the town. (*The Parasite* 14)

In essence, chaos disrupts the system which leads to a new level of order. This notion echoes Prigogine and Stengers' notion of order out of chaos. Furthermore, Serres highlights the fact that the language of communication theory actually originated in social customs and thus offers a bridge between the scientific and humanistic domains:

> The basic vocabulary of this science comes from such ancient and common customs and habits that the earliest monuments of our culture tell of them, and we still see them, at least in part: hospitality conviviality, table manners, hostelry, general relations with strangers. Thus the vocabulary is imported to this pure science and bears several traces of anthropomorphism. The animal-host offers a meal for the larder or from his own flesh; as a hotel or hostel, he provides a place to sleep, quite graciously. (6)

Consequently, Serres asserts that like hosts and parasites, literature, science, culture, and society are interrelated, leading him to this evaluation:

> Hosts and parasites. We live, in the city or in the country, in the space of the two rats. Their fabulous feast is this book. A book that is oral and aural, about famine and murders, about knowledge and bondage. Both in the fable [about the two rats] and in this book, it is a question of physics, of certain exact sciences, of certain techniques of telecommunications, a question of biophysics and of certain life sciences, of parasitology, a question of culture and of anthropology, of religions and literatures, a question of politics, of economics. (10)

For Serres, one domain is not the exclusive repository of knowledge. Domains become intertwined like hosts and parasites. The discussion above on metaphors by Weingart and Maasen offers an excellent example of the parasitic overlap between literature and science. Literature appropriates a term from science which becomes embedded like a parasite. After an initial period of irritation and integration or "hospitality" the domain will be changed to a new level or organization. The same process is true when science appropriates a term from literature.

Harari and Bell's claims about modern science and literature reverberate well with Serres' philosophy

> Modern science is […] concerned with the study of all aspects of the transmission and propagation of messages – information, noise, redundancy. (Literary criticism understands these same problems in terms of theories of code, language, writing and translation.). (*Hermes: Literature* xxiii)

Hayles points up that Roland Barthes makes an effective link between literature, science and noise in his work *S/Z* "[Barthes] points out that even within one (linguistic) code disparate connotations are often at work, as if two voices were speaking at once over the

same channel […] and concludes that 'literatures are in fact arts of noise'" (*Chaos Bound*

188). Barthes states in *S/Z:*

> In relation to an ideally pure message (as in mathematics), the division of
> reception constitutes "noise," it makes communication obscure, fallacious,
> hazardous: uncertain. Yet this noise, this uncertainty, is emitted by the
> discourse with a view toward communication: they are given to the reader
> so that he may feed on them: what the reader reads is a
> countercommunication. (145)

Hayles asserts, however, an important distinction between noise in information theory

and Barthes literary noise: contrary to information theory that seeks to reduce noise,

Barthes actually encourages noise "as the reader will find this information more

delectable than the original message" (*Chaos Bound* 188). Chaos theory, similarly like

Barthes's literary codes, characterizes noise as being a creative force.

Finally, another important characteristic of complex systems is its feedback loop,

where one operation serves as initial input for the next operation (Hayles, *Chaos Bound*

14). Thus, a system is constantly "feeding" itself on information or "noise" generated

from each operation. For example, in *H'Éros-Chimères* by Frankétienne writes: "Babel

and the Void succeed one another in total complicity at the heart of chaos, in connivance

with Time, on a dreamed beach continually noisy, continually silent" (140).[51]

Frankétienne insists that noise (Babel) and silence (Void) influence the other in a

constant feedback loop.

In essence, any dialogue or transmission of knowledge will inherently involve

"noise." Serres demonstrates that one such parasite is Lucretius's *clinamen* which "marks

the moment when an atom in laminar flow deviates from its path, collides with another

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[51] Babel et Néant se sont succédé en toute complicité au cœur du chaos, de connivence avec le Temps, sur
une plage onirique tantôt bruyante, tantôt silencieuse.

atom, and initiates the formation of things and ultimately of worlds" (*Hermes: Literature* 51 n13). In other words, the *clinamen* or parasite, which is integral to the system, creates chaos within a system, which drives the system to another ordered state repetitively. Prigogine and Lorenz both came to the same conclusions about scientific chaos. According to Serres, noise or the *parasite* serves as the "third person" in a conversation between two people which simultaneously inhibits communication by disrupting the message but it also advances communication in that it serves as the backdrop against which the message is deciphered. Serres claims in his essay "Platonic Dialogue:"

> Such communication [dialogue] is a sort of game played by two interlocutors considered as united against the phenomena of interference and confusion, or against individuals with some stake in interrupting communication […] To hold a dialogue is to suppose a third man and seek to exclude him. (*Hermes: Literature* 66-67)

Thus, Harari and Bell affirm that "the parasite attests from within order the primacy of disorder; it produces by way of disorder a more complex order" (*xxvii*). In fact, Prigogine and Stengers claim: "Communication is at the base of what probably is the most irreversible process accessible to the human mind, the progressive increase of knowledge" (*Order out of Chaos* 295). The first level of communication can then be described as person to person. Another level of communication is between disciplines. Different disciplines use different language games to communicate from *within* the discipline. The language games become more complicated once communication becomes interdisciplinary.

Pertinent to this analysis, Weingart and Maasen suggest chaos as one of the most important contemporary metaphors in communication and knowledge transfer. Consequently they ask the following questions:

The phenomenon of concepts such as chaos sweeping through the whole array of scientific disciplines and crossing the borderline into everyday discourses merits further questioning and a deeper understanding than that. What accounts for this phenomenon? Is it a product of the globalization of communication, which amplifies any herd effect? Or do those sweeping concepts, catchwords, or topics provide the connecting links in a world of constantly differentiating and specializing discourses that make communication among them possible and act as the necessary selective mechanism? (467)

As stated earlier, Weingart and Maasen even suggest that not only is chaos a pertinent contemporary metaphor for knowledge transfer between disciplines, they also characterize the transfer process as chaotic. Serres' conception of myth and how it joins literature and science is similar to Weingart and Maasen's notion of how metaphors transfer knowledge between discourses. To Serres, myth is a weaving together of several different "spaces." Weingart and Maasen view metaphors as units of knowledge containing their own language games. In *Feux et Signaux*, Serres even makes a connection between language, narrative, communication and chaos: "And we can understand how the primitive and original narratives carry out the singular forms of space, render habitable a given expanse despite its accidents. Render speakable a chaos where communication could not pass" (169).[52]

Relevant to this investigation are the language games that literature adopts from science. The communication between science, literature and philosophy can thus be characterized as chaotic and noisy. However, viewed as an irreversible process, communication also imitates Overton's spiraling Arrow of Time. Communication between three domains is constantly evolving through an assimilation/accommodation

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[52] Et nous pouvons comprendre comment les récits primitifs et comme originaires mettent en œuvre des formes singulières de l'espace, rendent habitable une étendue donnée malgré ses accidents. Rendent parlable un chaos où ne pouvait passait la communication.

process which "ascends toward greater complexity and coordination" (Overton 226).

Consequently, communication is not a closed cycle and thus not doomed to a "direction

understood as illusory phenomenological appearance" (226). Communication, however

noisy, does increase knowledge.

Through his discussion of information and noise transmission since Lucretius's

discussion of the beginnings of the world, Serres traces the lines of communication that

through time have joined literature, philosophy, and science. Essentially, for Serres,

literature encompasses all forms of knowledge. As Harari and Bell remark:

> Literature represents for Serres a *Journal à plusieurs voies*, the personal
> log-book of a poet-philosopher of science who speaks with many voices
> and journeys across many paths (journal and journey do share the same
> root), all of which lead to *sophia* – wisdom and knowledge. (*Hermes:*
> *Literature x-xi*).

In the final analysis, chaos and noise, although acting as the parasite or disruption in

communication, are critical venues through which literature, science and philosophy can

be coupled together.

Literary Fractalization and Noise

If Glissant and Serres employ chaos and noise as the conduit through which to

associate literature, myth and science, Deleuze and Guattari view chaos as the common

factor relating art, science and philosophy. These three distinct domains of thought are

delimited by their purpose according to Deleuze and Guattari: "With its concepts,

philosophy brings forth events [through the plane of immanence or consistency]. Art

erects monuments with its sensations [through the plane of composition]. Science

constructs states of affairs with its functions [through the plane of reference]" (*What is*

Philosophy 199). Resultantly, these three planes will operate on chaos in distinct ways.

As Elizabeth Grosz suggests

> Art, philosophy, and science each erect a plane, a sieve, over chaos, a historicotemporal and mutually referential field of interacting artworks, concepts, and experiments (respectively), not to order or control chaos but to contain some of its fragments in some small space (a discourse, a work of art, an experiment), to reduce it to some form that the living can utilize without being completely overwhelmed. (*Chaos* 28)

Deleuze and Guattari's planes of art, philosophy and science allow chaos to be represented without being ordered or controlled such that each domain can use chaos in a productive manner. Art, philosophy and science will thus each employ and present chaos in a way befitting each domain in "artworks, concepts, and experiments." Grosz summarizes the relationship of each of the planes with chaos accordingly

> [P]hilosophy develops nothing but *concepts* to deal with, to approach, to touch upon, harness, and live with chaos, to take a measured fragment of chaos and bound it in the form of a concept […whereas…] science primarily develops *functions* ("functives", formulae, algorithms) to address and exchange with chaos; and art elaborates, produces, and intensifies *affects* and *percepts* as its mode of response to and contamination by chaos. (27)

Deleuze and Guattari acknowledge that one plane is not superior to the other in terms of thinking (*What is Philosophy* 198). However distinct the planes are, chaos is their common denominator. Resultantly, as Grosz points up "all the planes address similar problems, similar events, and similar forces, […] the planes can utilize and develop their connections, their strata they form, with other planes" (*Chaos* 28). Thus connections will be made inevitably because of the prevalence of chaos amongst these domains. However, this is not to imply that science will start to produce concepts any more than art

will produce functions because of their link through chaos. Each domain will still remain faithful to its purpose and interact with chaos in its own way.

Mark Bonta and John Protevi state in their work *Deleuze and Geophilosophy* that

Deleuze […] can be the Kant of our time […] the great philosopher who provided the philosophical 'grounding' of classical, modern science. Just as Kant's *Critiques* were in a sense an epistemology, metaphysics, ethics, and aesthetics for a world of Euclidean space, Aristotelian time, and Newtonian physics, Deleuze provides the philosophical concepts that make sense of our world of fragmented space (the fractals of Mandelbrot, the 'patchwork of Riemann) […] twisted time […] and the non-linear effects of far-from-equilibrium thermodynamics. (*vii - viii*)

Bonta and Protevi astutely suggest science and philosophy in their own way vocalize an idea within the ecology of ideas relative to a cultural topography. What is relevant to this analysis is Bonta and Protevi's affirmation of the vital relationship between Deleuze's philosophy and chaos theory.

For example, Deleuze and Guattari propose a model from physics in *A Thousand Plateaus* that serves as analogy to their philosophy in the same spirit that mathematical fractals serve for their rhizomes: they do not propose to perform science with these analogies. In the physics model they propose, analogies are made between classical Newtonian physics, traditionally associated with order and characterized as striated space and State science, and Lucretian physics, traditionally associated with chaos and characterized as smooth, nomad space.

In *Hermès III: La Traduction* Serres actually anticipates Deleuze and Guattari's dialectic between nomad (chaos) science and State (Newtonian) science: "The theory of science is akin to the theory of domination. Knowledge, including scientific knowledge, is always finalized by political practice. 'To know is to engage in a practice implicated in

the ideology of command and obedience.'"" (*xvii*). In essence, Newtonian physics represents State science in that it is accepted and condoned by the State as it institutes order in society. On the other hand, Lucretian physics (chaos) is associated with nomad science or the War Machine which the State seeks to control. Deleuze and Guattari describe this relationship between State science and nomad science:

> It would seem that a whole nomad science develops eccentrically, one that is very different from the royal or imperial sciences. Furthermore, this nomad science is continually 'barred,' inhibited, or banned by the demands and conditions of State science. Archimedes, vanquished by the Roman State, becomes a symbol. The fact is that the two kinds of science have different modes of formalization, and State science continually imposes its form of sovereignty on the inventions of nomad science. State science retains of nomad science only what it can appropriate; it turns the rest into a set of strictly limited formulas without any real scientific status, or else simply represses or bans it. (*A Thousand Plateaus* 362).

Chaos theory was rejected early by scientists and the State as an appropriate explanation of the universe and judged as superfluous. What prevailed was the order and predictability of Newtonian physics which for nearly 300 years relegated chaos theory to the margins of scientific rationalization.

Deleuze and Guattari borrow from Michel Serres his philosophy on chaos and the *clinamen* when they define "nomad science." Essentially, according to Serres, beginning with the physics of laminar flow, "one no longer goes from the straight line to its parallels […] but from a curvilinear declination to the formation of spirals and vortices on an inclined plane." (*A Thousand Plateaus* 361). For Deleuze and Guattari, striated space is joined by smooth space through spirals and vortices. For Serres, the *clinamen* within laminar flow creates life: "The angle of inclination cures the plague, breaks the chain of violence, interrupts the reign of the same, invents new reason and the new law […] gives

birth to nature as it really is. The minimal angle produces the first spirals here and there"
(*Hermès III* 100). Deleuze and Guattari affirm the creative powers of the *clinamen*: "The
strength of Michel Serres's book is that it demonstrates this link between the *clinamen* as
a generative differential element, and the formation of vortices and turbulences insofar as
they occupy an engendered smooth space" (489). Although Deleuze and Guattari never
name their physical model for the smooth and striated space as chaos theory, their
incorporation of fractals, bifurcations and of Serres's *clinamen* theory affirms the
analogy, reinforcing an overlap between the scientific and philosophical perspectives on
chaos.

Collections of rhizomes (Deleuzian smooth spaces) emulate the function of
chaotic systems (fractals for example) in that they are both viewed as groupings or
dimensions and not as units established in a non-hierarchical order, emphasizing the
focus on the group as opposed to the importance of the individual. In essence, smooth
space is an approximate equivalent to a scientific chaotic system. Additionally, Deleuze
and Guattari claim that rhizomes offer the possibility to "map" and "survey" writing,
without which writing is not sufficiently captured.

Frankétienne characterizes spiral writing as such:

Spiral writing functions across […] the ensemble of quotidian rituals, the
configuration of anecdotal massifs, the projection of concrete events and
the tormented cinema of collective emotions and individual sentiments
perceived across the refractions, the diffractions and the distortions of the
active memory. (*H'Éros-Chimères* 120)[53]

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[53] L'écriture spirale fonctionne à travers […] l'ensemble des rites quotidiennes, la configuration des massifs
anecdotiques, la projection des événements concrets et le cinéma tourmenté des émotions collectives et des
sentiments individuels perçus à travers les réfractions, les diffractions et les distorsions de la mémoire
active.

Frankétienne's spiral writing in fact recalls Deleuze and Guattari's schizophrenic subject who scrambles codes and reactions to daily encounters. Moreover, Frankétienne incorporates not Deleuzian schizophrenia but schizophony into Spiralism. According to Yves Chemla Spiralism is

> the attitude or posture of the artist in rupture with the cleared up, common language of his demand for truth, but who realizes […] these sounds he hears and […] produces are also the only ones to even evoke the chaos and pollution which is overtaking the world (that is to say the language) by the route of neologisms, by lexical invention, some rhymes and some echoes, some alliterations and some encounters of sound and images.[54]

Right away, echoes of Deleuze and Guattari's notion of minor language in relation to a major language are evident since "Minor languages do not exist in themselves: they exist only in relation to a major language and are also investments of that language for the purpose of making it minor" (*A Thousand Plateaus* 105). Frankétienne's minor language translates as schizophony as he is using French, creole and English but is also combining the words in novels ways through complete sentences, fragments and single words. Deleuze and Guattari indeed laud minor authors who place language "in a state of continuous variation […] Conquer the major language in order to delineate in it as yet unknown minor languages. Use the minor language to *send the major language racing*" (original emphasis; 105). As will be discussed in Chapter Two, Frankétienne's use of the visual and the verbal indeed send the major language, French, racing. Chemla concludes that the primary purpose of the schizophonic spiral is to jostle "that which [is] in the

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[54] l'attitude ou la posture de l'artiste, en rupture avec le langage courant dégagé de son exigence de vérité, mais qui se rend compte […] que ces sons qu'il entend et qu'il produit sont aussi les seuls à même d'évoquer le chaos et la pollution qui atteignent le monde (c'est-à-dire aussi le langage), par la voie du néologisme, de l'invention lexicale, des rimes et des échos, des allitérations et des rencontres de sons et d'images […]

[major language] discourse […] [the schizophonic spiral] participates in a subversion of current hierarchies. Writing for Frankétienne is immediately sworn to plurality, and turns away from ideological classifications."[55] In much of his works, Frankétienne is writing in French, but through the schizophonic spiral, he is deterritorializing French.

As Bogue summarizes in his book *Deleuze on Literature* "The object of minor writing is to make language vibrate, to induce disequilibrium, to activate from within a language itself the lines of continuous variation immanent within its grammatical, syntactic and semantic patterns" (102). Frankétienne does just that with his spiral literature. Ernaux and Toussaint accomplish similar results through their minimalistic approach to writing. Blank spaces in their texts, examined in Chapter Two, translate not only into white noise which disturb the text but also as a part of the text that forces the reader to make her own connections between paragraphs. Toussaint's and Frankétienne's textual repetitions in some of his texts serve to induce disequilibrium rather than regularity in language.

According to *Webster's Ninth New Collegiate Dictionary*, etymologically "schiz-" or schizo-" can mean "split" or "cleft" (etymologically chaos also means abyss or cleft), and "phon-" or "phono-" is derived from the Greek word *phōnē* which means "sound, voice or speech" ("schiz-" def. 1 and "phon-" def.). In Deleuze and Guattari's schizophrenia, "phrenia" is derived from the Greek "phren" which means mind ("Phren-" def. 1). In effect, Frankétienne's schizophony represents a split voice: one that is chaotic yet empty simultaneously. Deleuze and Guattari's schizophrenia represents a similar situation but with the mind. As Frankétienne expresses schizophony in terms of

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[55] ce qui dans le discours est de l'ordre de l'autre discours […] elle participe d'une subversion des hiérarchies courantes. L'écriture, pour Frankétienne, est immédiatement vouée à la pluralité, et se détourne des classifications idéologiques.

alliterations, neologisms, rhymes and echoes, these elements of writing can be considered

rhizomatic and fractalized as suggested above by Deleuze and Guattari. Prigogine and

Stengers equally advocate the seminal importance of fractals to their chaos theory:

> Our work is based on recent progress in functional analysis, a field of
> mathematics that has come to the forefront only in recent decades. […]
> This new field of mathematics, which uses generalized functions or
> fractals, as Benoit Mandelbrot called them, is now playing a critical role in
> the understanding of the laws of nature. (*The End of Certainty* 38)

One then could count fractals as an important and relevant concept within the ecology of

ideas in the cultural topography of the late twentieth century influencing intellectual

thought.

Finally, Deleuze and Guattari's philosophy on becoming can be equated with the

chaosmos, an image derived from Guattari's chaosmosis that he had in turn adopted from

James Joyce.[56] Jeffery A. Bell states: "[Chaosmos] *both* involves the identity and

completeness of cosmos, *and* it entails a chaos which subverts this identity and

completeness" (178). In effect, the chaosmos is simultaneously order and chaos, a system

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[56] The term chaosmos appears in Joyce's 1939 novel *Finnegans Wake*: "Because, Soferim Bebel, if it goes to that […] every person, place and thing in the chaosmos of Alle anyway connected with the gobblydumped turkery was moving and changing every part of the time." (118). Kuberski characterizes Joyce's chaosmos as such "Joyce [..] employs a technique of verbal fission to dismantle the material universe of European scientific culture and a method of fusion that reconstitutes what he calls 'chaosmos.'" (5). Indeed, pertinent to this analysis, Joyce's text acts as a precursor to Frankétienne's, Ernaux's and Toussaint's own verbal fission: Frankétienne with his bombardment of unexpected word pairings and Ernaux and Toussaint with their striking but paucity of words. In fact, Frankétienne has been compared to Joyce in an article in the edition of the *Nouvel Observateur* from December 30 1998 to January 6 1999: "This untiring inventor of worlds, expert in dynamiting syntax and lexical pyromaniac is already compared to Joyce, Gabriel Garcia Marquez and Rabelais. [Cet indefatiguable inventeur des mondes, expert en dynamitage syntaxique et pyromane lexical est déjà comparé à Joyce, Gabriel Garcia Marquez ou Rabelais]". Furthermore, Frankétienne himself admits to being an admirer of Joyce (Aubel 60). Kuberski continues "Texts such as *Finnegans Wake* […] which abandon the linear and abstracting tendencies of modern literature, show how chaos and cosmos can be reconciled and yet appreciated distinctly within the dynamics of a multi-leveled, multitemporal, plurivocal language whose surplus of meaning begins to resemble the 'noisy' but engendering status of chaos." (47).

that is balancing on the edge of chaos. Both chaos and order are immanent to the chaosmos. Accordingly, the chaosmos is a system of becoming:

> As a dynamic system, chaosmos is necessarily self-identical (self-similar) and complete, for without the integrity of this self-identity, a system could not function and perdure; and yet chaosmos is forever open to an outside it presupposes, an immanent chaos which both threatens the system and allows it to create novel adaptations […] to the chaos within/without, or to the chaos chaosmos *is*, and hence a dynamic system is a system that creates itself – that is, it creates and constitutes the identity it *is* in response and adaptation to the chaos it *is*. To be, in other words, is to become. (178)

To be clear, the chaosmos is not a system balancing on the edge between chaos *and* order. It is in fact balancing on the edge of equilibrium and non-equilibrium *chaos.*

Deleuze and Guattari are not trying to use scientific theories in their philosophy to perform science just as chaos theory does not suppose to offer philosophical theories. They both are, however, sensing influences of certain ideas in their shared cultural web. Deleuze's three planes of immanence, reference, and art do indeed cut through chaos according to each domain, and chaos is a common denominator for each of these approaches to thinking.

Ira Livingston in his 2006 book *Between Science and Literature: An Introduction to Autopoetics* also acknowledges the fluidity with which words serve as metaphors between the domains of nature and culture:

> One could try to imagine what it would mean to have a *physics* or an *ecology of culture*. These are *metaphors*, since physics and ecology were developed with reference to different kinds of phenomena, but it is important to keep in mind that such differences among phenomena may be themselves neither natural nor eternal; they have been very selectively elaborated in modern language, discourse, and culture-and they are subject to ongoing rearrangement. Increasingly, in fact, there seem to be a number of concepts that move with relative ease-that fly under the radar-within

and between the nature/culture divide otherwise so definitive for modern knowledge, concepts and paradigms such as *system, information, emergence, evolution, diversity, relativity, chaos, ecology, complexity*; these concepts perform transcoding operations among various realms of the knowledge network. (4-5)

Livingston astutely underscores that words and their 'membership' in one discipline are not permanent. Indeed "diversity" is a term used to describe biological populations, choice of brands in the supermarket, and investment accounts. Livingston characterizes this exchange of metaphors between disciplines as 'traffic':

modernity consigns much of the traffic to a black market. To take some easy examples, *science fiction* not only is illegitimate science but has also mostly been illegitimate literature as well; the use of metaphor, supposed to make good poetry, has mostly been thought to make bad science. (5)

According to this evaluation, modernity views metaphor exchange between disciplines as negative. However, instead of concentrating on the impact of metaphor exchange, Livingston explores how the 'kinds of knowledge are changing [rather than] where they fit into an imaginary hierarchy" (5). A metaphor also represents information as noted by Weingart and Maasen above, and Livingston defines *information* as "a controlled mix of redundancy and predictability with novelty" (39). Hayles offers a similar definition of *noise* as "anything that interferes with the reception of the message the sender sent […] Noise is measured in the same units as information; indeed, it *is* information" (*Chaos Bound* 55). Livingston's information as "novelty" could be interpreted as an interference of the message or noise. Thus the traffic of knowledge proposed by Livingston can be equated with noise.

Furthermore, Livingston claims not only does the transfer of information across domains create traffic, but texts in their own domain create "noise" or "traffic." He

claims that autopoetic systems are both open and closed (83). These systems have "semipermeable membranes" that not only keep things "in" and "out" but also create boundaries across which they *manage* and *create*

> traffic by producing differentials between the two sides of boundaries, thus also producing more openness (flow across boundaries where none had been before.) Finally […] boundaries and the autopoetic systems built around them do more than *create* traffic: they *ar*e traffic. (original emphasis; 84)

Texts equally create boundaries: book covers and bindings, chapters, pages, paragraphs, and sentences construct closure but also allow openness and thus 'traffic of information' through textual fragments being photocopied and dispersed in coursework, citations in articles, and intertextual references between books. Thus, textual boundaries, while regulating and "creating traffic", are in and of themselves "traffic" that is dispersed into the world.

Frankétienne clearly encourages boundary crossings between paragraphs and pages which will undeniably create traffic in his text. He states in the preface to *Ultravocal*:

> Moving blueprint. Variable axes. Nothing is imposed on the reader who can thus evolve, in the space of the book, without being constrained to respect a pre-established itinerary. In such a case, the pagination only serves as a frame of reference; it does not define the order of the reading. (12)[57]

Consequently, the boundaries such as the pagination become a 'moving blueprint' that is in and of itself traffic. The use of images in textual works also increases the text's

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[57] Plans mobiles. Axes variables. Rien n'est imposé au lecteur qui peut ainsi évoluer, dans l'espace du livre, sans être contraint d'observer un itinéraire préétabli. Dans un tel cas, la pagination ne sert que du système de repérage ; elle ne définit pas l'ordre de la lecture.

noisiness. As per Hayles' definition of noise quoted above, the images can impede the author's message to the reader since the images are a different mode of expression than words: they are visual rather than verbal. In some of Ernaux's (*L'Usage de la photo*) and Frankétienne's texts (*L'Oiseau schizophone*, *H'Éros-Chimères*, *Galaxie Chaos-Babel, Corps sans repères,* and *La Diluvienne*) the use of images – photographs and paintings - adds another layer of closure and openness within the work: the images create a unified image-text (closure) but simultaneously impose traffic (openness) as the image competes with the text for meaning.

Frankétienne's texts can be as graphical as his paintings. As for Ernaux her photographs can be as journalistic (*journalistique*) as diaristic (*journalière*) creating traffic or noise around the interplay of these domains. Ernaux's works also create textual snapshots of daily life in the city in *Journal du dehors* and *La Vie extérieure*. These entries to her *journal extime* (her *ex*timate diary as opposed to her *in*timate one) are sporadic and usually without date or relation to each other. Toussaint, while not physically inserting images into his novels, creates traffic through exploiting the use of still and repetitive, moving verbal images in the plot of several of his texts (*L'Appareil-Photo*, *La Télévision*, *Autoportrait à l'étranger*, and *La Réticence*).

French literary theorist Gérard Genette defines intertextuality in his work *Palimpsests* as "a relationship of copresence between two texts or among several texts: that is to say, eidetically and typically as the actual presence of one text within another" (1-2). The way texts interact with each other according to Genette is through quotation, plagiarism or allusion. However, it is actually Genette's notion of transtextuality that accurately captures Livingston's concept of traffic and its relationship to intertextuality.

Genette defines transtextuality as "the textual transcendence of the text, which I have already defined roughly as 'all that sets the text in a relationship, whether obvious or concealed, with other texts'" (1). Intertextuality is only one of five categories of transtextuality. The other category Genette defines is paratext: "a title, a subtitle, intertitles, prefaces, postfaces, notices, forewords, etc; marginal infrapaginal, terminal notes; epigraphs; illustrations, blurbs, book covers, dust jackets, and many other kinds of secondary signals, whether allographic or autographic" (3). Ernaux's works offer an example of Livingston's 'traffic' or Genette's paratext with her epigraph in *Journal du dehors* from Jean-Jacques Rousseau: "Our true self is not completely within us" (6).[58] Ernaux chooses as her epigraph a quote from an 18th century philosopher and writer who effectively inspired the Romantic literary movement. This relationship between Ernaux's text and her epigraph will be discussed in detail in Chapter Three. However, using a paratextual element from the eighteenth century in a diary from the twentieth century intuitively suggests some rough edges and noisy associations as Ernaux's minimalist text is void of the abundance of description and natural references often found in Romantic texts: Ernaux's text does suggest a contemporary "*mal du siècle*" similar to that found in Rousseau's writings.

Toussaint cites Pythagoras in his epigraph for *La Salle de bain*: "The square of the hypotenuse is equal to the sum of the square of the two other sides" (7).[59] In the spirit of a seventeenth century classical writer as opposed to a twentieth century minimalist yet ludic one, Toussaint is quoting a scholar from Antiquity. Again, a fuller discussion of the transtextuality in Toussaint's texts will be developed in Chapter Three but for a text that

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[58] Notre *vrai* moi n'est pas tout entier en nous.
[59] Le carré de l'hypoténuse est égal à la somme des carrés des deux autres côtés.

puts forth the appearance order (all the paragraphs are numbered and the three chapters in the book are entitled "Paris" "Hypotenuse" and "Paris") the narrator's life is quite disjointed.

As a last brief example, in the preface to Frankétienne's *Ultravocal* the story between the two opposing characters, Vatel and Mac Abre, is compared to the mythical story of Theseus (Vatel) the Minotaur (Mac Abre). Vatel's "odyssean" voyage is also evoked as the preface suggests he will encounter great challenges against Mac Abre and have to face his own Calypso. This paratext suggests a rhizomatic as opposed to arborescent relationship between Frankétienne's modern *spiral* and Greek mythology since there are clear similarities between the two texts cited above but yet Frankétienne uses spiral and not linear writing to present his story. Consequently a direct (arborescent) "lineage" between the texts is rejected for a more rhizomatic, fractalized one.

Fractals offer one method for examining "traffic" within and across literary texts. As such, the text is no longer considered as a unitary entity only influenced by the forces contained within it: for the reader, a text interacts on many levels across many different texts ensuring some level of incertitude when examining the text. Similarly, chaotic systems no longer consider of primary importance the movements of one particle since some of the forces on the individual particle are unpredictable. Within the frame of chaos theory, incertitude can be defined as the "absence of assurance or confidence: doubt" ("incertitude def.).

When speaking about certainty, Prigogine and Stengers recall the situation that surrounded both Descartes and Einstein while they were developing their physical theories: social chaos. For Descartes, it was the religious wars between the Catholics and

the Protestants which offered no certain path of belief. Prigogine and Stengers highlight

that

> It was in the midst of this strife that Descartes began his search for a
> different kind of certainty that all humans, independent of their religions,
> could share. This led him to his famous *cognito*, the foundation of his
> philosophy, as well as his conviction that science based on mathematics
> was the only way to reach such certainty. (*The End of Certainty* 184-185)

Mathematically valid solutions would offer certainty to understanding the chaotic world.

In Einstein's era, World War I and II had devastated populations and countries.

Resultantly,

> Einstein's view of the human condition was profoundly pessimistic. He
> had lived through […] fascism and anti-Semitism and two world wars. His
> vision of physics has been defined as the ultimate triumph of human
> reason over a violent world, separating objective knowledge from the
> domain of the uncertain and the subjective. (185)

Like Descartes, physics offered Einstein the only certain refuge from an uncertain,

subjective world of humans and their wills. However, incertitude does not imply

complete randomness. Prigogine and Stengers suggest there is a 'narrow path' between

"the two alienating images of a deterministic world and an arbitrary world of pure

chance" (189). It is a path of incertitude but also possibilities. Incertitude does not imply

a completely arbitrary world, but a world where creativity can play a role in describing

events. Similarly, Ernaux, Frankétienne, and Toussaint offer a similar attitude toward the

uncertainty of the contemporary world in their works to be investigated in the subsequent

chapters.

Chaos theory focuses on systems as opposed to individual units. Consequently,

scientists study recursive *levels* of symmetry containing many points coupled together at

certain nodes. Symmetry in physics is defined as a "the property of remaining invariant

under certain changes (as of orientation in space, of the sign of the electric charge, of parity, or of the direction of time flow) – used in physical phenomena and of equations describing them" ("symmetry' def. 4). So in physics, symmetry describes a relationship that a system has relative to a transformation it undergoes. For Prigogine and Stengers the Arrow of Time breaks the time-symmetry condition proposed by Newtonian mechanics. As noted above, according to Prigogine and Stengers a system with the Arrow of Time can "see." With time symmetry a system is "blind" due to the fact that it knows no difference between past and future.

In general terms, symmetry characterizes the beauty of a form "arising from balanced proportions" ("Symmetry" def. 1). In this instance, symmetry describes the relationship an object has with itself or others and is not related to a transformation of itself. Furthermore, these recursive levels of symmetry are composed of irregular forms where as Hayles observes, "measurements on scales of different lengths do not converge to a limit but continue to increase as measurement scales decrease. Fractal geometry […] expresses this complexity through increased dimensionality" (*Chaos Bound*, 12-13). An example of a fractal is a palm frond: seen as a whole the entire plant has limbs and leaves. If one looks only at one limb, this physical outline of the entire plant is repeated: a central limb with leaves as offshoots. Looking at one leaf, it has a vein that serves as the primary limb with other vein 'offshoots.' Thus, as one probes each level of magnitude of the palm plant, recursive symmetries appear in its physical shape: the palm plant as a whole is composed of branches which resemble the plant on a smaller level just as each leaf on each palm frond repeats this symmetry, and so forth. Overton's chambered nautilus as mentioned earlier, is an also excellent example of a fractal.

Livingston advocates that texts and books can

> get fractal on you, branching out in multiple copies from Xerox machines and printing presses, breaking off discreet little bits into other texts, feeding not so discreetly into new texts that resemble them more or less, brokering relationships between other texts and slithering along with the push and pull of disciplinary and interdisciplinary forces, not just as they circulate in the world but also as they circulate in their every line. Look closer and the little rectangular block or slab of the book, the sonnet, the paragraph, cracks open into sprawling, rhizomatic networks, all edges, across various scales. (85).

In electronic literature Hayles's characterization of generative art serves as a pertinent example to Livingston's theory of books going fractal: "Generative art, whereby an algorithm is used either to generate texts according to a randomized scheme or to scramble and rearrange pre-existing texts is currently one of the most innovating and robust categories of electronic literature" (*Electronic Literature* 18). As an example, Hayles cites the French electronic text *La Série des U* (*The Set of U*) by Bootz and Frémiot where

> The work generates a different text-that-is-seen (texte-à-voir) each time it is played through subtle variations in the timing at which the textual elements appear and the relation between verbal text and the sonic component, which is not directly synchronized with the words but nevertheless gives the serendipitous impression of coordination through programmed meta-rules. (19)

Other such texts that use algorithms include *Oulipoems* by Niss and Deed and *Jean-Pierre Balpe ou les Lettres Dérangées* by Burgaud. The conclusion to this study will examine electronic literature in more detail.

Indeed this analysis is pulling and pushing the texts of Frankétienne, Ernaux, and Toussaint through scientific, philosophical and literary boundaries, breaking the texts apart and (re)assembling them through different levels of analysis (symmetry) across the

corpus of all three authors. As such, it is through the lens of fractals and chaotic, recursive symmetry that allows texts which critics otherwise consider too disparate to compare to be effectively and astutely analyzed and evaluated.

Breaking It Down: Recursive Symmetry or Self-similarity

Yet, an essential difference between a rhizome and a fractal that Deleuze and Guattari do not address is the recursive symmetry, scaling or coupling between rhizomatic levels. Hayles points up that "complex couplings between scales of different lengths […] are at the center of fractal geometry" (*Chaos Bound* 165). Clouds and shorelines offer examples of this scaling found in nature; the more precisely one tries to measure the contour of a shoreline, the smaller the measurement magnitudes become (from kilometers to meters to centimeters and infinitely ever smaller), the more infinitely long the shoreline becomes (a shoreline viewed from the magnitude of a millimeter looks infinitely longer than one viewed from the magnitude of kilometers). Fractal geometry thus attempts to reproduce the contours of complex forms ranging from "the human vascular system and the lumps and clusters of galactic star systems" (166).

Notably, this coupling between measurement scales does not indicate simply a symmetrical form at different magnitudes (that is, a larger fractal is not simply three times larger than a smaller fractal). The symmetry or form between levels involves the same scale of *irregularity* found at each magnitude. For example, a triangle is not an enlarged version of a snowflake. Still, recursive levels of perturbation on a triangle can result in a snowflake. Mandelbrot illustrates this phenomenon in his Koch curve. Figure 1 shows the first three iterations of the Koch snowflake.
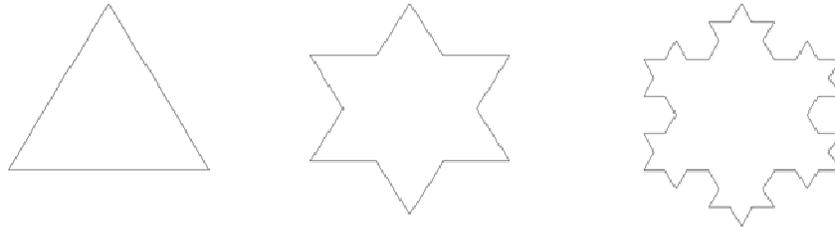
Figure 1: A Koch snowflake. Starting with a triangle, divide each side equally in two and add another triangle. Repeat the process iteratively to arrive at more detail.

Still, these fractals created in a deterministic, methodical fashion, despite their complexity, are still too orderly to imitate non-symmetrical objects in nature. For example, contours of a mountain are constantly being unpredictably altered by the weather. Mandelbrot advocates using probability theory to perturb the system even further as probability is "the only mathematical tool available to help map the unknown and the uncontrollable […] the importance of chance [in scaling random fractals] remains constant on all levels, including the macroscopic one" (201).

Recursive symmetry or scaling leads to two conclusions. First, Mandelbrot underscores the importance of using chance and deterministic calculations to generate realistic fractals that approach imitating nature's complex structure. This is an important distinction from Deleuze and Guattari's rhizomes because while rhizomes and fractals both allow for nonlinearity and complex forms, fractals in their fundamental nature are a combination of order and chaos. Rhizomes make up smooth (chaotic) space and will interact with striated (orderly, aborescent) space, but they do not belong to striated space. Consequently, rhizomes serve as a metaphor for connections in several domains: Deleuze and Guattari mention "organizations of power, and circumstances relative to the arts, sciences, and social struggles" (7). This conclusion does not suggest that these domains may be integrally simultaneously chaotic and orderly. Accordingly, fractals, to be

discussed in Chapter Four, offer a paradigm through which to consider not only our encounters as being chaotic but also to consider our internal nature as being both chaotic and orderly.

Secondly, recursive symmetry allows a comparison of two systems not in reference to their respective physical forms (which may be very different, such as clouds and streams or in chaotic systems of weather and economics), but rather through the rate at which their levels of symmetry change. Thus, ordered information about seemingly disparate chaotic systems can be revealed and compared. Equivalently, recursive symmetry offers a novel framework with powerful implications for philosophy and literature through which to consider identity and genre and more broadly through which to examine how literature and science as systems approach conveying knowledge. This dissertation will offer such an example of this approach with the analysis of the tutor texts.

In his work *Heaven's Fractal Net* William Joseph Jackson shrewdly remarks of philosophy as follows:

> The assumption of perennial philosophy is that the same basic timeless truths are expressed again and again in various times and cultures, in different language and with certain nuances elaborated depending on the conditions. In the view of the enduring philosophy and in light of the reality of life's flow, ownership of one idea by one thinker is an illusion. Each view is indebted to others; all are interdependent." (7)

Serres would say the same "timeless truths" of science as literature, science and philosophy are intertwined. In essence, recursive symmetry offers the possibility to better understand notions of "partness" and "wholeness." For example, through recursive symmetry or fractals, identity could be (re)defined and (re)examined. Jackson offers an

appropriate evaluation of this proposition: "Fractals can usefully model the partness and wholeness of our situation, suggesting more accurate ways to picture our realities of relation and belonging" (21). Fractals will offer an excellent basis for analyzing Frankétienne's spiral genre which is a blend of poetry, theatre, and the novel that does not form a smooth whole, but rather a fractalized generic state. Finally, recursive symmetry will offer the possibility to compare the minimalist genre with the spiral, two seemingly disparate genres when considered as a whole.

Recalling Jackson's quotes about philosophical ideas being expressed iteratively over time, the same could be said of literature. From Antiquity to the present, explicitly or not, authors have investigated the relationship between chaos and order. This investigation suggests that chaos already belongs to the "ecology of ideas" in contemporary topography as is evidenced through recent philosophical and literary scholarship. In an effort to productively expand the "tool box" of literary investigation, this dissertation will borrow the concepts of noise, the Arrow of Time, bifurcations, strange attractors and fractals from scientific chaos theory. As such, disparate Francophone texts will be compared and contrasted in an innovative way that reveals trends in contemporary exploration of identity, genre, and gender.

CHAPTER TWO: NOISY TEXTS

From Noise to Information

Prigogine and Stengers advocate that in systems far from equilibrium order can emerge from chaos. Typically entropic systems move from order to disorder, and as will be discussed in the next section "From Information to Noise". Therefore, entropy, which is the measure of disorderliness in a system, always increases. However, there are pockets or instances where order does emerge from chaos. Mark C. Taylor describes these instances as negentropy or

> negative entropy. Whereas entropy represents the loss of differences constitutive of organizational structure, negentropy designates the temporary reversal of this process, which occurs when differentiated structures and systems emerge in the midst of disorder […] Prigogine labels the islands of negentropy that form in the river of time 'dissipative structures […] Prigogine's dissipative structures dissipate the dissipation in a process that approximates a dialectical negation of negation. Dissipative structures, which always emerge spontaneously in conditions far from equilibrium, complicate the relation between information and noise. (119)

Taylor explains negentropy not as a complete reversal of chaos, but as a process that "[b]y temporarily slowing the slide into chaos, negentropic processes generate organized structures, which create redundancies. This increase in order decreases the randomness and increases probability" (120). In spite of this increase in order, the Arrow of Time is still irreversible. The dissipative structures simply retard the advancing chaos but do not become reversible as in a Newtonian system. As discussed in Chapter One, this spontaneous ordering occurs at bifurcation points where the system will chose between order and chaos.

This chapter will begin with an examination of two texts by Frankétienne assuming a transition from noise to information through a combination of visual and verbal techniques which serve as dissipative structures slowing the progression into chaos. An analysis of texts by Toussaint and Ernaux investigating an evolution from noise to information will follow. As this inquiry will illustrate, Frankétienne's visual and verbal combinations support a Deleuzian minor language, a schizophony, in opposition to the Duvalier dictatorship. This is the foundation for all of Frankétienne's texts and therefore beginning with this basis is pertinent for future evaluations of his texts. Toussaint and Ernaux do not manipulate language as Frankétienne does, but will employ immobility and repetition to attempt to slow the slide into disorder.[60]

Immobility is not a productive tool in schizophony which is an interpretation of language inherently influenced by the events in Haiti. As such, this offers an indication as to how Frankétienne's text is situated relative to chaos: immobilization equaled zombification and essentially a social, moral and cultural death under Duvalier. Toussaint and Ernaux, alternatively, do employ immobility as an approach to confronting chaos suggesting freedom rather than confinement through immobility. Admittedly, Frankétienne's texts differ dramatically in content and form than Toussaint's and Ernaux's. Despite similarities amongst the three authors as presented in the Introduction, strong socio-political differences do exist and must be allowed to better understand each of these three authors. The establishment of these important differences will then liberate a discussion on similarities amongst all three authors in Chapter Three and Four.

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[60] Frankétienne does use repetition in his texts, but this phenomenon will be developed in Chapter Three relative to bifurcation points and nodes of textual instability.

Spiraling Noise: "Ultravocal" Auditions

Frankétienne's chaos aesthetic is also similar to that of Edouard Glissant's in that Frankétienne's spiral and Glissant's spiral both allow for a non-linear conception of movement and both claim to represent the modern world. Glissant's spiral represents the movement of time and the creation of the Creole identity in opposition to linear identities of the West. Glissant characterizes the spiral in his *chaos-monde* (chaos-world) as "a circular movement but always escaping from this circularity toward other things – that's what constitutes the spiral" ("Le chaos-monde" 123).[61] In addition, Glissant's spiral encourages *métissage* (mixing), and affords language the opportunity to continually change and incorporate new aspects from a variety of cultures. Frankétienne's spiral in opposition is much more militant: his spiral does not emphasize *métissage* as much as he uses the spiral in a minor literary function as a means to subvert the political domination of the Duvaliers. Frankétienne confronts the political and social chaos in Haiti with chaotic language in *Ultravocal:*

> The power to diminish the divide between the cries the faces riddled with pain comes from the verbal magic of the poet at once solitary and witness. Who claimed that language remains an archaic weapon? Creator as much as destructor, the voice makes a way beyond its cry. Infallible surgery undertaken by the means of words, sometimes simple, sometimes complex, but always new because they are intangible. (214)[62]

Frankétienne's spiral gives the poet a tool "a weapon" with which to overcome the deafening silence of Duvalier's dictatorship and to give voice to a linguistic rebellion. In

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[61] un mouvement circulaire mais toujours une échappée de cette circularité vers autre chose – c'est ce qui constitue la spirale.

[62] Le pouvoir de diminuer l'écart entre les cris et les faces criblées de douleur relève de la magie verbale du poète tout à la fois solitaire et témoin. Qui a prétendu que le langage demeure une arme archaïque ? Créatrice autant que destructrice, la voix se fraye un chemin au-delà de son cri. Infaillible chirurgie entreprise au moyen de mots, tantôt simples, tantôt complexes, mais toujours neufs parce qu'intangibles.

the final analysis, Glissant's chaotic spiral allows for language and cultures to come together; Frankétienne's chaotic spiral prevents language and voice from becoming extinct: words of the poet are the only means to promote revolution despite the fact that he is speaking schizophonically or in other words using language that is simultaneously chaotically full and empty. *Ultravocal* written in 1972, is a work that illustrates superbly the political battle that ensued in Haiti at that time. In *Ultravocal*, Frankétienne writes: "If you really want to die/start by becoming quiet/But if you really want to live/speak louder than the noise of your body" (222).[63]

An outcome of minor literature, as defined in "Literary Fractalization and Noise" in Chapter One, is inspiring a collective political effort: "this situation allows the writer all the more the possibility to express another possible community and to forge the means for another consciousness and another sensibility" (Deleuze and Guattari, *Kafka*, 17). Frankétienne asserts that schizophonic writing and later painting were the only way for him to deal with the political chaos in Haiti:

> The madness to write saved me from suicide and schizophrenia and also from an interior exile under Duvalier which was terrible for me. Writing nourished my life and allowed me to assume a great madness. When one assumes his madness, one ceases to be mad. (Delaporte)[64]

For Frankétienne, schizophrenia meant death. On the other hand, schizophony, based on chaos theory, saved his life. Fortunately when his first novel came out, *Mûr à crever*, "Papa Doc" Duvalier took him for a fool, allowing him to keep writing against the

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[63] Si tu veux vraiment mourir/commence par te taire/Mais si tu veux vivre/parle/parle plus fort que le fracas de ton corps.

[64] La folie d'écrire m'a sauvé du suicide et de la schizophrénie, et aussi d'un exil intérieur sous Duvalier qui a été terrible pour moi. L'écriture a nourri ma vie et m'a permis d'assumer ma grande folie. Quand on assume sa folie, on cesse d'être fou.

dictator (Aubel 61). As a result, a minor literature known as Spiralism and based on chaos theory flourished in the shadow of the major language in a state of tyranny.

An essential element of Frankétienne's chaotic aesthetic is valuing language over plot and form over content. Two of Frankétienne's works, *Ultravocal* and *H'Éros-Chimères* demonstrate how the massive amount of information or 'noise' provided through a variety of language forms, fonts, images, and formatting produce a grammar in disequilibrium, chaos in essence, impacting traditional Western genres and ultimately modern literary creation. As previously mentioned science and literature both contribute to shape an era's cultural topography. Essentially, Hayles claims that given an era's cultural landscape, certain ideas may be possible, although not all may be realized. Similarly, Frankétienne has specifically acknowledged the influence of society and the continual advances in science and technology on his literary creation. He states in an interview with Kauss:

> In essence, born in the context of the flowering of a bourgeois society, the novel is inept to realize the changes in all the genres which affect the actual world. The metamorphoses that our era is undergoing can only be understood by a writing in perpetual explosion. In this perspective, it is evident that one cannot continue to write as before. Innumerable changes have already been produced at the cosmic level and one cannot blindly stay attached to anachronistic writing of the past. It suffices for us to enumerate a few facts from current events to underline the necessity of a new and functional writing: man landing on the moon, the development of the mass media, the accentuated interdependence of different cultures, the progressive transporting towards a planetary civilization. All of this leads to changes in plan, vision modifications, and profound changes in the human conscience. (Kauss)[65]

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[65] En effet, né dans le contexte de l'épanouissement de la société bourgeoise, le roman est inapte à rendre compte des bouleversements de tous genres qui affectent le monde actuel. Les métamorphoses que subit notre époque ne peuvent être appréhendées que par une écriture en perpétuel éclatement. Dans cette perspective, il est évident qu'on ne peut pas continuer à écrire comme auparavant. D'innombrables changements se sont déjà produits à l'échelle cosmique et l'on ne peut pas, de manière aveugle, s'attacher

Every aspect of society's cultural topography whether that be scientific, political or cultural, infiltrates and refashions traditional genres like the novel. For Frankétienne, the spiral, the "schizophone", and its relationship to chaos are essential notions within the "ecology of ideas" in the cultural topography of Haiti, but also in the world. Firstly, Frankétienne affirms the fundamental relationship of Haiti to his writings in an interview with *L'Humanité* in 2004 claiming "Fundamentally, Haiti cannot be absent from my work and it is she who inspired the spiral esthetic" (Delaporte).[66] Not only is Haiti the subject of his writing, but more importantly Haiti's *character* influenced the aesthetics of Spiralism. Furthermore, a large preoccupation of Frankétienne's spiral is language and its relationship to chaos as previously discussed. Consequently, an integral part of this spiral is Frankétienne's "schizophone" as explained by Chemla in Chapter One ("Literary Fractalization").

Genre in the West has offered a frame through which works can be classified and analyzed according to certain criteria: the novel, poetry, and theatre for example. However at once a work could belong to a "fuzzy set" of genres, or to several genres, to borrow from Hippolyte's theory in his 2006 work *Fuzzy Fiction* where he advocates recognizing valid, "fuzzy" boundaries in terms of defining narrative, identity and truth: each concept does not quite comply with distinct criteria but in fact exists somewhere in between. If we admit to "fuzzy" boundaries on genres, then we have to allow for one

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encore à l'écriture anachronique du passé. Il nous suffit d'énumérer quelques faits de l'actualité pour mettre en évidence la nécessité d'une écriture nouvelle et fonctionnelle: le débarquement de l'homme sur la lune, le développement des mass-média, l'interdépendance accentuée des différentes cultures, l'acheminement progressif vers une civilisation planétaire. Tout cela entraîne des changements de plan, des modifications de vision et de profonds bouleversements dans la conscience humaine.

[66] Fondamentalement, Haïti ne peut pas être absente de mon travail et c'est elle qui m'a inspiré l'esthétique de la spirale.

genre to bleed into another, unquestionably reframing our analysis of the text. As John

Frow states in his article 'Reproducibles, Rubrics, and Everything You Need: Genre

Theory Today,' genres may encourage "patterns of meaning and response relative to

particular communicative functions and situations"; however one drawback is that

> genre continues to be considered a matter of the categorization of texts
> rather than a matter of the textual categorization and mobilization of
> information about the world. Rather than asking, What kind of thing is
> this text? We should be asking something like, What kind of world is
> brought into being here—what thematic topoi, with what modal inflection,
> from what situation of address, and structured by what formal categories?
> Who represents the world to whom, under what circumstances and to what
> ends? (1631-1633)

The chaotic noise in *Ultravocal* and *H'Éros-Chimères* offers the reader a conduit through

which she can reorient her frame of reference when reading a text in order to answer the

latter of Frow's questions.

    Ultravocal was Frankétienne's first spiral work. Loosely, the "plot" is an allegory

about Haiti during the reign of François Duvalier. Vatel is the poet and creator of souls,

who must encounter Mac Abre, the tyrannical figure who sweeps over nations

slaughtering all citizens and silencing their cries of protest on his journey to Mégaflore.

The two will meet in Vilasaq (translated "ville à saq" or "a city to sack") for a final

attempt to determine Mégaflore's destiny either of glacial silence or creative chaotic

noise. Unlike Prigogine and Stengers who affirm that chaos is inherent to a system and

order evolves out of chaos from bifurcating, self-organizing systems, the chaotic "strange

attractor" systems described by Lorenz, Mandelbrot and others are intrinsically orderly

although their trajectories would indicate otherwise. Hayles remarks: "For [strange

attractor systems] the focus is on the orderly descent into chaos rather than on the

organized structures that emerge from chaos" (*Chaos Bound* 10). In essence, chaos can ensue due to the sensitivity of the system's initial conditions. A result of this orderly descent into chaos is an increase in acquired "noise." In physics, noise is defined as a disturbance, especially a random and persistent disturbance that obscures or reduces the clarity of a signal.

Recalling Hayles description of noise as "anything that interferes with the reception of the message the sender sent […] Noise is measured in the same units as information; indeed, it *is* information" (*Chaos Bound* 55), Frankétienne's text embodies this interpretation: his text is a confluence of poetry, prose, monologues, and dialogues and is physically a (dis)array of various type fonts and sizes. Visually and textually, *Ultravocal* is noisy, including spaces of silence or "white" noise as represented in Figures 2-4.

Although there are approximately three conventional word-images in *Ultravocal*, physically the written word on the page and its variations serve at once as the text and image. As W.J.T. Mitchell states in his work *Picture Theory: Essays on Verbal and Visual Representations,*

> 'pure' texts incorporate visuality quite literally the moment they are written or printed in visual form. Viewed from either side, from the standpoint of the visual or the verbal, the medium of writing deconstructs the possibility of a pure image or pure text, along with the opposition between the "literal" (letters) and the "figurative" (pictures) on which it depends. Writing, in its physical graphic form, is an inseparable suturing of the visual and the verbal, the "imagetext" incarnate. (95)

As an act of subversion to the Western genre of the novel, Frankétienne overtly foregrounds the *visual* importance of the text as a *lieu de savoir*, a place of knowledge, through his spiralist collage of the imagetext. Spiralism, like surrealist collage, privileges

process over product as pointed up in the introduction: "The spiral represents a new genre which permits the translation of the palpitation of the modern world […] the spiral is fundamentally an open work, never finished. The spiral is an attempt to seize the real in the diversity of its aspects" (Kauss).[67] Furthermore, Adamowicz notes: "The collage principle has been considered by some critics as the fundamental structural model of the twentieth century, not only in the field of aesthetics but more generally in social, scientific and philosophical thought" (13). The collage principle which seeks to present images that reflect chance and the aleatory, also emulates the goals of Spiralism as stated above. Accordingly, collage can be considered as a central force within Frankétienne's works.

W.J.T. Mitchell suggests a pertinent question for this analysis of spiralist collage:

> The real question to ask when confronted with […] image-text relations is not 'what is the difference (or similarity) between the words and the images?' but 'what difference do the differences (or similarities) make?' That is, why does it matter how words and images are juxtaposed, blended, or separated? (91)

In *Ultravocal,* the importance is less what Frankétienne's choice of different font or script size for each segment tells about that particular segment but more that the collage of fonts, script sizes and paragraph divisions, in opposition to a traditional novel where the visual stylistics are uniform, physically embody these modern "tremors" of chaos and disorder and insert noise, indeed detractors, into a traditional, linear textual reading. His spiralist imagetext subverts the 'authorized' novelistic form in favor of an unauthorized

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[67] La spirale représente un genre nouveau qui permet de traduire les palpitations du monde moderne […] la spirale est fondamentalement une œuvre ouverte, jamais achevée. La spirale est une tentative de saisir le réel dans la diversité de ses aspects.

genre that incorporates and realizes cultural influences within the text. This suturing between the visual and verbal in *Ultravocal* anticipates a spiralist (re)interpretation of the surrealist *collage-roman* equally incorporating images and texts in *H'Éros-Chimères* to be discussed below.

In addition to visual noise, textually *Ultravocal* imitates noisiness through fragmented phrases, disjointed paragraphs, and various stylistic forms (narrative, dialogue, and poetry for example) which continually challenge the reader to readjust her generic frame of reference and to resist asking questions such as: Is this a narrative or a poem? Where's the plot? Who are the main characters? Who is speaking? Recalling Frow's questions, instead of asking "What kind of thing is this text?" the reader should ask "What kind of world is brought into being here […] Who represents the world to whom, under what circumstances and to what ends?" (Frow 1631 – 1633). Indeed, Chemla states regarding *Ultravocal:* "One understands that such a project deploys itself even to the limits of literary writing" (Chemla).[68] Furthermore, juxtaposition of noise and silence riddle *Ultravocal* as noted in the following phrases:

> The silence of the desert (160)
> No glimmer on the heavy water of silence (163)
> The piling up of silence (165)
> Rhythms and sonorous plans do not obey any known rule, all in attaining
> however an atmospheric unity, an internal logic (181)
> Echoes marching to the heart of anarchy. The drums of silence explode
> (262)
> Proliferation of echoes (302).[69]

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[68] On comprend qu'un tel projet se déploie aux limites même de l'écriture littéraire.

[69] Le silence du désert (160) ; Aucune lueur sur l'eau lourde du silence" (163) ; "L'entassement du silence." (165); "Rythmes et plans sonores n'obéissant à aucune règle connue, tout en atteignant pourtant à une unité d'atmosphère, à une logique interne. (181) ; "Echos en marche au cœur de l'anarchie. Les tambours du hasard explosent (262) ; Prolifération d'échos (302).

Yet, the text makes clear the relationship between noise and silence: "If you really want to die/start by becoming quiet/But if you really want to live/speak louder than the noise of your body" (222).[70] Speaking and making noise offer life whereas silence ensures death.

Furthermore, another example of chaotic noise in *Ultravocal* takes the shape not so much in verse and prose, but in the physical quest of Vatel to impose order to the chaotic disruption of printed communication. In an effort to resurrect the slowly dying noise in Mégaflore, Vatel collects newspaper fragments throughout his journey that he finds on the ground. These fragments are incomplete, and Vatel, along with the reader, struggle to add letters and words to the sentences to fill in the meaning.

> The suppleness of the plan conv   of an agreement the del   at the highest echelon has an exam appro   the negotiation had started in light of ins peace the discussion is centered on the mon   and on the other as   while the negotiations continued on the cha   with   pe. Vatel was sweating, forcing himself to reconstitute the fragmented pieces. The suppleness of the plan conv   . Conventional. Convex. Convertible. Convertability. Convenient. Agreed. Convergent. Agreed plan of agreement. (144)[71]

However, each fragment is so incomplete that neither Vatel (nor the reader) can be absolutely sure of their message, leaving only noisy information. Figuratively and physically, these fragments represent the vestiges of Mac Abre's slicing: he ravaged the word as well as the people of Mégaflore. Although "meaningless" these fragments

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[70] Si tu veux vraiment mourir/commence par te taire/Mais si tu veux vivre/parle/parle plus fort que le fracas de ton corps.

[71] La souplesse du plan conv   d'un accord le dél   au plus haut échelon a un examen appro   la négociation avait commencé en vue d'ins   la paix la discussion s'est centrée sur le mon   et sur les autres as   tandis que se poursuivraient les négociations sur la cha   avec   poir. Vatel suait, s'efforçait de reconstituer le texte morcelé. La souplesse du plan conv   . Conventionnel. Convexe. Convertible. Convertissable. Convenable. Convenu. Convergent. Plan convenu d'un accord.

represent the dying clamor of noise and life in Mégaflore. Consequently, these fragments, chaos in essence, inspire Vatel to continue his journey to face Mac Abre.

Clearly chaos reigns in Mégaflore (Haiti), and this is textually and visually expressed using a collage of genres and fonts. Nonetheless, each passage whether composed in dialogue, poetry or prose form, offers an extremely rich amount of information, no matter how disjointed, about the "story." Narratives, poetry and theatre perhaps express the same message but approach this task differently, according to its own aesthetic. This persistently chaotic state where many genres coexist and collide changes the operational force of traditional genres. The reader is compelled to liberate these genres from their normal limits, and to allow them to work together in an innovative, chaotic manner, enhancing the message, and ultimately the meaning. Meaning cannot be understood or found for this text through the plot as Frankétienne privileges not the story but language as a way to access meaning.

The answer to Mitchell's question "What differences do the differences make?" is that language is simultaneously the conduit and the essence of chaos. The message and the messenger become one so that the answer to the question "What kind of world is brought into being?" is a noisy, chaotic one. Information theory affords an important lens through which to analyze *Ultravocal*. Without noise being understood as information rich as opposed to poor in meaning, order would be the point of departure from which to analyze and relate aspects of the work. Resultantly, this text could be considered linearly nonsensical and simply an allegory for a country that has fallen into irreparable ruin. Instead chaos serves as the point of departure, as the "choice springboard for artistic reverie and imagination because it is the necessary passage for determination, the vacant

site where new forms take shape" (Jeanneret 82). Indeed, Philippe Bernard says of

Frankétienne's writing in the preface of *Ultravocal*: "His writing will be that of an

aesthetic of decay, because when only ruins remain, one must really discern them as

beautiful ruins" (6). Amidst the ruins of Vilasaq (i.e., Port-au-Prince) Vatel gives form to

the chaotic ruins through words. Jeanneret advocates that in Montaigne's *Essays*: "the

form corrects the formless, but somehow the formless should fertilize the form" (103).

Prigoginian chaos asserts the necessary passage of order *out of* chaos through bifurcation

and self-organization in states far from equilibrium, and that chaos must precede order.

Frankétienne also acknowledges of his text:

> Moving blueprint. Variable axes. Nothing is imposed on the reader who
> can thus evolve, in the space of the book, without being constrained to
> respect a pre-established itinerary. In such a case, the pagination only
> serves as a frame of reference; it does not define the order of the reading.
> (12)[72]

Similarly *Ultravocal* resembles the structure of the *nouveau roman* or New Novel as

characterized by William Thompson as "the rejection of the accepted trademarks of the

so-called traditional novel (well-delineated characters and a logical, consequential

narrative for example)" (8). Non-linear events, novel author/reader relationship, and a

singular concern with artistic creation were essential elements in the New Novel. Indeed,

Robbe-Grillet attempts to explain the confusion a reader would experience in reading

such a novel: "If the reader has trouble sometimes to locate himself in the modern novel,

it is in the same way that he gets lost in the same world in which he live, when all gives

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[72] Plans mobiles. Axes variables. Rien n'est imposé au lecteur qui peut ainsi évoluer, dans l'espace du livre, sans être contraint d'observer un itinéraire préétabli. Dans un tel cas, la pagination ne sert que du système de repérage ; elle ne définit pas l'ordre de la lecture.

way around him of the old constructions and the old norms" (116).[73] Robbe-Grillet points

up a clear relationship between the confusion and chaos of the New Novel and present

society. Fundamentally, the *nouveau roman* offers a literary interpretation of societal

chaos.

Frankétienne's text reflects these same challenges and goals. Indeed as cited in

the Introduction, Glover acknowledges the influence of the New Novel on Spiralism.

Still, Prigoginian chaos allows us to understand Frankétienne's moving blueprint as an

accumulation of invisible causes which, explained through the Arrow of Time, cannot be

retraced to their origin. Instead of outright indifference to establishing why events

happen, Prigoginian chaos permits complete acceptance of unknown origins, and instead

of seeking an explanation for the past the reader can focus on the present. As Prigogine

and Stengers recognize, events measured by the Arrow of Time continually move

forward temporally, "the future is no longer determined by the present, and the symmetry

between past and future is broken" (*The End of Certainty* 6). Consequently, each reading

can be different as the reader will encounter bifurcation points influencing her choice of

the next passage bringing order to her understanding or continuing to generate chaos.

Chapter Three will analyze specific examples of the Arrow of Time applied to

Frankétienne's texts.

Surrealism equally influenced Frankétienne's texts as noted by Sourieau and

Balutansky in the Introduction. A surrealist text allows a variable chaotic (re)reading of

every text, as their creation was "Dictated by thought, in the absence of all control

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[73] Si le lecteur a quelquefois du mal à se retrouver dans le roman moderne, c'est de la même façon qu'il se perd quelquefois dans le monde même où il vit, lorsque tout cède autour de lui des vieilles constructions et des vieilles normes.

exerted by reason, with no aesthetic or moral preoccupation" (Breton 36).[74] Surrealism is

an example of a literary, indeed artistic, movement that rejected the current rational

thought found in early twentieth century science and technology and privileged

imagination, the dream, the fantastic, and the unconscious. Automatic writing and

automatic collage were two art forms that privileged spontaneity and fragmentation, and

they incorporate pre-formed phrases and pictures of everyday life into a single text.

However, unlike chaos in surrealistic texts which leads to a dream-like, hallucinatory

state or unlike chaos in the *nouveau roman* which contents itself to simply represent

chaos as a factual reality, viewed through Prigoginian chaos, Frankétienne's text

acknowledges the presence and understanding of the power of chaos. Frankétienne's

texts while exhibiting characteristics of the *merveilleux*, the fantastic, and a priority for

nonlinear plots and innovate reader participation, are not a creation of the unconscious;

they do not serve to offer either an escape from reality nor to passively accept chaos in

reality. Although Frankétienne's writing did offer him an outlet of expression during the

reign of the Duvaliers, Spiralism is grounded in reality and a desire to be proactive. Thus

his texts can be viewed not as randomly chaotic, but a deterministically chaotic reflection

of Haiti. Furthermore, Prigoginian chaos allows for recognition of the unity and diversity

in nature. The world may be chaotic (diverse), but everything in it will follow the same

Arrow of Time (unity).

This conclusion frames Frankétienne's text as being diverse (depending on how

the reader chooses to read the text) and unified in that the events of the book will move

the reader along the same Arrow of Time despite (re)readings. Resultantly, we can view

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[74] Dictée de la pensée, en absence de tout contrôle exercé par la raison, en dehors de toute préoccupation esthétique ou morale.

Frankétienne's text not as an example of an updated or combination of a surrealist or New Novel text, but as a spiralist text that purposefully and soberly extracts various genres from their tradition role employing visual and textual components to implicate the reader in a chaotic but valuable text creation. *Ultravocal* captures the chaos of contemporary society but also advances the notion that chaos is not necessarily the antithesis of order, and that chaos and order are complementary, combining to form a schizophonic, multifaceted, multidimensional expression that is the spiral. This process provides a means to (re)question, (re)challenge, and (re)explore a contemporary notion of genre and reality which insists that order can emerge from chaos although this evolution is in constant disequilibrium and movement.

Spiraling Noise: Chimerical Visions

On the first page of Frankétienne's 2002 autobiographical, spiralist work *H'Éros-Chimères* is a phrase that embodies perfectly the essence of his work: "One single image is worth more than all the words in the dictionary" (1).[75] Physically, this work is an 8.5 by 11 inches, 350 page volume containing Frankétienne's drawings (he has created approximately 1000) overlaid with texts in various fonts, sizes and orientations.[76] As Jean Jonassaint states in his article "Beyond Painting or Writing: Frankétienne's Poetic Quest":

> Frankétienne, with *H'Éros-Chimères* is without a doubt the francophone writer who pushed to its furthest limit the integration of image and text into one great whole, and who moved beyond poetry into the text-image or image-text, the written-painting, to relate, comment, communicate, and follow the movement of the spiral. (153)

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[75] Une seule image vaut plus que tous les mots du dictionnaire."
[76] See Figures 5-8 for some sample pages from *H'Éros-Chimères*.

More so than in *Ultravocal*, the reader experiences high definition visual noise in *H'éros Chimères*. Frankétienne started painting after he wrote *Ultravocal,* and he claimed in an interview with B.T. Mohamed for *Callaloo* that he is as much a painter as he is a writer (385). Surrealism clearly influenced Spiralism as is evidenced by Adamowicz's characterization of surrealist collage: "the absence of pictorial cohesion or semantic coherence in collage disturbs the viewing or reading subject; information seemingly withheld frustrates and thus implicates the addressee, inducing her active engagement in the construction of the work" (21). Fundamentally, the noisy, chaotic surrealist-like texts anticipate the central role noise and chaos will play in Spiralism. In cutting them from their accepted milieu and bringing together disparate parts, the surrealists subvert the fragments' original message bringing chaos to where order once existed.

Adamowicz confirms: "as a subversive act, it is an instrument of *détournement* of pre-formed messages […] As a creative act, it involves the transformation of these messages" (13). The text that accompanies each image in *H'Éros-Chimères* suggests a cutting and pasting of word fragments together such that the reader cannot be sure if she is reading an intended ensemble of "textimage" which expressly exalts noise to communicate the "message" of chaos or if the text and image have been randomly joined in an effort to get order out of chaos and piece together the information serving as the messenger of chaos. Even the text's name suggest a noisy textimage: is the subject of work about heroes or is it about eros (love, lust, and sex)? In addition, either of these images is to be chimerical thus offering an element of fantasy or the fantastic or a mythical reference to the Chimera, the mythical creature composed of many different animals' bodies. Finally, this work is characterized as an autobiography which leads the

reader to further speculation on its relationship to the author. These challenges recall Vatel's attempts in *Ultravocal* to piece together the newspaper fragments.

In addition, unlike in *Ultravocal*, some of the text appears to have been handwritten, indicating a mixture of "official fragments" and personal commentary in the form of a personal diary suggesting autobiographical content. These unrelated messages collaged together whether as text or images, are seemingly transformed from coherent messages into pure chaotic, noise. Indeed the Surrealists privileged process over meaning, hence the chance *assemblage* of their texts and the resulting "information" became more valuable than any meaning extracted from logical, linear texts. Adamowicz asserts Surrealism's reaction to rational thought as an influence of the introduction of new scientific theories:

> the surrealists concerted exploitation of the accidental, the aleatory and the chance encounter, makes collage an essential agent in the grand epic of the rout of rationalism following the 1914-18 war. New concepts of space were elaborated in non-Euclidean geometry, while quantum physics explored the nonsequitur, and the irrational and the fractured subject were charted in Freudian psychoanalysis. (14)

A tenet of Spiralism discussed above is the implication of the reader in the work's creation process also privileging process over product, chaos over order. As in *Ultravocal*, the reader will be visually and contextually implicated in such a process in *H'Éros-Chimères*. Similar to the lexical fragments in *Ultravocal*, the unrelated pictorial images that follow on each page too remain incomplete and noisy, offering a vast amount of "information" for reader consumption and interpretation. The images are in black and white (although originally some were in color; Frankétienne's 2006 spiral work *Galaxie Chaos-Babel* presents some of his paintings in color) and do recall the importance of the

merveilleux from surrealist collage. Analogous to the Surrealists' fragments, Frankétienne's fragments retain their syntactical coherence but they are semantically incoherent again implicating the reader in the work's creative process.

A distinct quality of Frankétienne's fragments is their constant reference to chaos, chance, and perpetual movement. The reader is continually disoriented and refocused with each page rarely offering a 'continual' reading on one plotline: chaos. One of the rare exceptions of a quasi-linear reading is the theatrical spiral play (see Figures 9 - 11 for scene 1, 5 and 9). Visually, the reader's experience with the work will be chaotic. The fonts and orientation of the text allow for a varied reading: some words could be skipped, rearranged, or repeated. The book can be rotated as well to offer a new reading frame. Furthermore, the text in essence becomes inseparable from the paintings, filling the white spaces of silence or "white noise" around the painting, all transmitting information about the effects of living in the chaos of Haiti. As powerfully as he used words to create noise in *Ultravocal*, Frankétienne's textimages or imagetexts or Deleuzian "visions" in *H'Éros-Chimères* offer just as profound an experience. The noise they generate is just as "ultravocal" as text alone.

Recalling again Mitchell's question "What differences do the differences make?" and examining this text through the prism of Prigoginian chaos, this analysis must now consider the surrealist *collage-roman* or the collage-novel created by Max Ernst. The surrealist collage novel which predated Graphic novels is composed of images taken from nineteenth and early twentieth century literary, scientific and historical texts. The images are then collaged together around a melodramatic theme or plot that is not necessarily linear. Occasionally, the written word would accompany these images. Frankétienne's

text *H'Éros-Chimères* blends the structure of the collage-novel juxtaposing images (written-painting) on facing pages with what could be considered a collection of individual surrealist works. Except for a few examples of quasi-linear plot, *H'Éros-Chimères* differs from surrealist collage-novels in that there is no traditional narrative; the unifying theme is chaos which permeates life as depicted in the photos. Frankétienne manipulates and subverts the power of ready-made phrases in *H'Éros-Chimères* by cutting and pasting them in various ways. He does attempt to personalize some of the language as is suggested by the hand-written script.

Short of creating his own language, Frankétienne, in a state of schizophony, must use the same chaotic, empty language, used by the dictators and oppressors in Haiti, as a creative tool to convey chaos. Instead of using ready-made images from public texts however, Frankétienne's pictures are his own personal paintings. He embraces the power of *his* images, *his* creativity, and *his* voice to create his own language beyond the control of his repressors. The 'difference', what is important about Frankétienne's work in light of previous surrealist work which already incorporated collage and pre-formed phrases, is the incorporation of a personal element in his quest to privilege language, noise and chaos over meaning. As *Ultravocal*, *H'Éros-Chimères* is at once the message and the messenger of chaos.

H'Éros-Chimères offers new perspectives on genre as well: this work is neither a *collage-roman* nor a traditional autobiography, nor a simple compilation of unrelated works as chaos *is* the work's guiding theme. *H'Éros-Chimères* embodies the ultimate spiral genre, narrated by the poet who, according to Glissant, has the responsibility to bring the churning chaos of the modern world to the surface. As stated by Jennifer

Bartlett in Lorin Cuoco's *The Dual Muse*: "When painting, the artist is always moving her body to make something that will be still. In writing, the author's mind is moving fast, while his body sits still. Writing must move, painting must be still" (Cuoco 58). The spiral, through the written-painting, combines movement and stillness to personify chaos. Unquestionably, Frankétienne privileges process over product: reader participation is primary in Spiralism as it allows multiple bifurcation points. Yet his process does inform his product which is the essential function Prigoginian chaos offers to understand and not reject a complex, contemporary society.

To conclude, Frankétienne calls his spiral works a '*genre total*'. Not to be confused with the Western idea of genre, and in spite of these works being extremely visual, Frankétienne still integrates various genres of poetry, narrative, theatre and even cinema. Frankétienne's *genre total* is actually a total (non)genre in that Spiralism cannot be classified as one or several genres, no matter how encompassing of traditional genres it may be. The spiral is a (non)genre in the sense that Frankétienne's works, through the aesthetic of chaos and the accompanying noise underscore Mitchell's difference in the differences. As such the question changes the question from, "What kind of thing IS this text?" to "What kind of world is being brought into being?" The answer: a minor literature pushing the limits on major literature through the chaos aesthetics of schizophony and Spiralism.

Maximizing Minimalistic Noise

Toussaint's texts *La Salle de bain*, and *L'Appareil Photo* also offer examples of negentropic events which seek to slow down the passage of time and the slide into chaos

through immobility and repetitive actions. Toussaint's novels have been astutely characterized by Hippolyte as reticent and undecided (31). If Hippolyte also underscores the fuzziness of Toussaint's narrators and content as residing between action and inaction in an effort to mask the chaos of the external world (27), this investigation seeks to probe exactly how immobility and repetition can offer pockets of order amidst the chaos. Consequently, Toussaint's immobility and repetition offer movement amidst this reticence.

Immobility

Immobility is a theme that permeates all of Toussaint's texts at various levels including in narrative structure, character's comportment and discourse, and style. In *La Salle de bain*, at certain intervals, the narrator reflects on the passage of time. The bathroom is a place of tranquility and calmness but also an escape for the narrator from the chaos of life. He admits to Edmondsson in the bathroom that "I should take a risk […] the risk to compromise the quietude of my abstract life for. I did not finish my sentence" (15).[77] Staying in the bathroom offers the narrator a place to attempt to slow time down and observe its passing. While in the bathroom, the narrator stares at a crack in the wall "trying in vain to surprise [its] progress" (12).[78] He admits to undertaking other 'experiments' where he tries to distinguish time passing: "I watched the surface of my face in a pocket mirror, and at the same time, the displacements of the needle of my

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[77] Je devais prendre un risque […] le risque de compromettre la quiétude de ma vie abstraite pour. Je ne terminai ma phrase.
[78] essayant vainement de surprendre un progrès.

watch. But my face revealed nothing. Ever" (12).[79] He monitors his face again a while later in the text: "Standing in front of the mirror, I was looking at my face with attention. I had taken off my watch, which was lying in front of me on the shelf of the sink. The second hand was turning around the face. Immobile. At each turn, one minute rolled by. It was slow and nice" (25).[80]

During this scene the narrator also describes how, when shaving his face, he shaved away "rectangles of shaving cream" suggesting again that the bathroom provides him a refuge of order. The world may be advancing in a chaotic soup of encounters, but in the bathroom the only encounter the narrator has is with his face. His outer, physical appearance does not betray evidence of time's passing. In a narcissistic fashion, the narrator's face becomes a symbol of immobility. The only "information" he is interested in is whether time is passing, and he attempts to do this through his gaze. He gains vain satisfaction in that while looking at himself, he detects no change. He is immobile in time and this comforts him.

The narrator's self-absorbed attachment to "stopping time" by looking in the mirror prevents him from effectively functioning in the real world. When Edmondsson comes to visit the narrator in Venice, she asks him several times why he will not come back to Paris. The narrator does not have an answer. As discussed above, the communication he has with the outside world establishes noise without any information about the world. However, after Edmondsson has returned to Paris from Venice, the narrator has an epiphany while lunching with his doctor in Venice:

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[79] Je surveillais la surface de mon visage dans un miroir de poche, et parallèlement, les déplacements de l'aiguille de ma montre. Mais mon visage ne laissait rien paraître. Jamais.

[80] Debout en face du miroir, je regardais mon visage avec attention. J'avais enlevé ma montre, qui reposait en face de moi sur la tablette du lavabo. La trotteuse tournait autour du cadran. Immobile. A chaque tour, une minute s'écoulait. C'était lent et agréable.

> Standing in front of the rectangular mirror of the toilets, I was looking at my face, which was illuminated by a yellow lamp behind me. One part of my eyes was in the shadow. I was looking at my face thus divided by the light. I was looking at it intently and asked myself a simple question. What was I doing here? (116)[81]

The narrator seems to do his clearest thinking in the bathroom facing his own image. However, that half of his face is obscured implies a visual that is not clear or ordered. His face, which represents stability, immobility even, is now half hidden and so cannot offer him the "information" he needs about why he is in Venice. As Prigogine and Stengers affirm, dissipative systems do not bring about complete order, they only offer some order for a short amount of time before chaos inevitably marches on. What used to be his "dissipative structure" offering order out of chaos, his face in the mirror, is beginning to bifurcate towards chaos.

On the other hand, when the narrator "immobilizes" himself and gazes out his bedroom window while it is raining, he first imagines that the people on the street are in an aquarium and he wonders if they are afraid of water filling the tank. However, what he realizes is that he is the one who is afraid:

> I told myself that people did not fear the rain; certain ones, coming out of the hairdresser, feared it, but none were really scared that the rain would never stop again, continual flowing making everything disappear – destroying everything. It is I who, in front of my window by a confusion which justified fear that had inspired me different moments which unfolded before my eyes, rain, displacements of men and cars, had been suddenly afraid of bad weather, such that it was the passage of time, once again, which had horrified me. (31)[82]

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[81] Debout devant le miroir rectangulaire des toilettes, je regardais mon visage, qu'éclairait une lampe jaune derrière moi. Une partie des yeux était dans l'ombre. Je regardais mon visage ainsi divisé par la lumière, je le regardais fixement et me posais une question simple. Que faisais-je ici ?

[82] je me disais que les gens ne redoutaient pas la pluie; certains, sortant de chez le coiffeur, la craignaient, mais nul n'avait vraiment peur qu'elle ne s'arrêtât plus jamais, écoulement continu faisant tout disparaître – abolissant tout. C'est moi qui, devant ma fenêtre par une confusion que justifiait la crainte que m'avaient inspirée les divers mouvements qui de déroulaient devant mes yeux, pluie, déplacements des hommes et

Looking outward into the world, the narrator can see that people and cars on the street are forever moving, and this offers the narrator tangible evidence of time passing. The narrator leaves his room upon this thought, only to return a short while later to begin to reconsider the rain. He believes there are two ways in which to watch the rain: either to pick an area in space and to watch the rain that fall in that space only; or, to choose one drop and to follow it until it stops. This method of putting order to the chaotic event of rain falling is one way the narrator attempts to slow down time that he earlier admitted horrified him. He wonders: "Is it thus possible to imagine that the movement [of the rain], as dazzling as it may appear, tends essentially towards immobility and that consequently, as slow as it may seem sometimes, drag bodies continually towards death, which is immobility. Olé" (36).[83] The narrator's reflection on death equaling immobility echoes the position discussed in Chapter One according to which a dynamic system that is rigid and fixed means death. On the other hand, an entropic system that tends toward ultimate chaos also means death as no order can be established to maintain evolution. A balance between order and chaos must be found for a system to continue evolving.

The narrator eventually has two experiences where he realizes he cannot stop time, no matter how immobile the object. On the train to Venice, immobile in a train car, he spends the evening reflecting on the passage of time exterior to his body but also to time passing inside his body:

> Sensible to the exterior movement, obvious, which displaced me, in spite
> of my immobility, but also to the interior movement of my body which

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des voitures, avais eu soudain peur du mauvais temps, alors que c'était l'écoulement même du temps, une fois de plus, qui m'avait horrifié.

[83] Ainsi est-il possible de se représenter que le mouvement, aussi fulgurant soit-il en apparence, tend essentiellement vers l'immobilité, et qu'en conséquence, aussi lent peut-il parfois sembler, entraîne continûment les corps vers la mort, qui est immobilité. Olé.

was destroying itself, imperceptible movement to which I began to devote exclusive attention, that I wanted to fix with all my force. But how to seize it? Where to detect it? The simplest gestures distracted attention. I handed my green passport to the Italian police officer. (51)[84]

Unlike when the narrator is in the bathroom, he does not know how or where to look to seize time. The narcissistic mirror and his watch offer him, even if fleeting, affirmation that time is not advancing on his face. His reflection in the mirror discussed above seems to be the only immobile element. In the train, however, he cannot see the interior of his own body and is thus convinced that his body is changing with time. The narrator wants to detect time and stop it amidst the chaos of his life. While the train is speeding him toward the unknown in Venice, his immobile body is evolving inside. While the narrator is in Venice, he orders an ice cream, a *dame blanche* which he described earlier while in the bathroom as "A Mondrian. The smooth chocolate on iced vanilla, hot and cold, consistency and fluidity. Instability and rigor, precision" (15).[85] The narrator later admits that it is the immobility in Mondrian's paintings that pleases him. Furthermore, the immobility in Mondrian's paintings is

> not absence of movement, but the absence of all perspective of movement, it is death. Painting in general, is never immobile. Like in chess, its immobility is dynamic. Each piece, immobile power, is a movement in power. With Mondrian, immobility is immobile. Maybe it is for this reason that Edmondsson finds Mondrian really boring. Me, it reassures me. (84)[86]

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[84]Sensible au mouvement extérieur, manifeste, qui me déplaçait malgré mon immobilité, mais aussi au mouvement intérieur de mon corps qui se détruisait, mouvement imperceptible auquel je commençais à vouer une attention exclusive, qu'à toutes forces je voulais fixer. Mais comment le saisir? Ou le constater ? Les gestes les plus simples détournent l'attention. Je tendis mon passeport vert à un policier italien.

[85] Un Mondrian. Le chocolat onctueux sur la vanille glacée, le chaud et le froid, la consistance et la fluidité. Déséquilibre et rigueur, exactitude.

[86] L'immobilité n'est pas absence de mouvement, mais de l'absence de toute perspective de mouvement, elle est mort. La peinture, en général, n'est jamais immobile. Comme aux échecs, son immobilité est dynamique. Chaque pièce, puissance immobile, est un mouvement en puissance. Chez Mondrian, l'immobilité est immobile. Peut-être est-ce pour cela qu'Edmondsson trouve que Mondrian est chiant.

The *dame blanche*, like a Mondrian, according to the narrator, possesses similar qualities of a dynamic system which encompasses order and chaos. Both these objects are negentropic as they posses immobility but also fluidity. Negentropy is only a passing state but does offer some order out of chaos for a short while. As the narrator realizes, time will always move forward. He does not know how to stop the passage of time, however he does offer that simple gestures help distract him. This analysis suggests that games are one of the narrator's simple gestures which distract him from his quest to detect and seize time, one that is marked by the irreversible arrow of time.[87]

In *L'Appareil-Photo*, the narrator needs to get some passport photos taken for his driver's license. In this rather reticent quest, the narrator, immobilizing himself in a gas station bathroom, eating chips, finds that thinking while immobilized is a means by which to slow time, a dissipative structure in essence:

> Sitting there a moment already, my regard locked, I guess, I was calmly meditating, ideally pensive, to pee being to me rather favorable, I must say, to think […] Thought, it seemed to me, is a flux to which it is good to leave the fuck alone such that it can bloom in the ignorance of its own flow and continue to surface naturally and in innumerable and wonderful ramifications which end up converging mysteriously toward an immobile and fleeting point. (32-33)[88]

Over time, thought can immobilize, however short-lived, and in this immobilization, emulate an effort to slow time's passage. This image also recalls Deleuze and Guattari's

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[87] See in this Chapter "Noisy Games: From Noise to Information" and "Noisy Games: From Information to Noise" for a discussion on the role of games in Toussaint's oeuvre.

[88] Assis là depuis un moment déjà, le regard fixe, ma foi, je méditais tranquillement, idéalement pensif, pisser m'étant assez propice je dois dire, pour penser. […] La pensée, me semble-t-il, est un flux auquel il est bon de foutre la paix pour qu'il puisse s'épanouir dans l'ignorance de son propre écoulement et continuer d'affleurer naturellement en d'innombrables et merveilleuses ramifications qui finissent par converger mystérieusement vers un point immobile et fuyant.

rhizomes suggesting its non-arborescent, fluid nature. As such, while thought may be immobile for a while, it will never be stationary.

When the narrator finally finds himself in the photo booth he states; "I was seated in the shadowy light of the booth for a moment already, the stool already adjusted to the right height, and I was not hurrying myself to insert the coins into the machine. All the conditions had come together now, it seemed to me, - to think" (93).[89] He immobilizes himself within the photo booth not to capture his image in a single shot as may be expected, but to escape from the chaos of the world and slow the passage of time by considering his thoughts. He says, recalling the narrator's ruminations on the rain in *La Salle de bain:*

> rain to me seemed to be an image of the flow of thought, fixed one instant in the light and disappearing at the same time appearing in rapid succession on itself. Because what is thinking – if not to something else? It's the flow that is nice, yes, the flow, and its murmur which advances outside of the world's noise. (93-94)[90]

He ultimately does not take his picture in the photo booth, remaining reticent to capture his image. However, later, he does take haphazard photos of himself after he has picked up a camera left on a bench next to him. Upon seeing the pictures developed later, he remarks:

> I was fleeing with all my might, my feet skipping over the steps, my legs in motion flying over the metal grooves of the boat steps, the photo will be blurry by immobile, the movement will be stopped, nothing would move any longer, neither my presence nor my absence, there would be there, the

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[89] J'étais assis dans la pénombre de la cabine depuis un moment déjà, le tabouret réglé à la bonne hauteur, et je ne me pressais pas d'introduire les pièces dans la machine. Toutes les conditions étaient réunies maintenant, me semblait-il, - pour penser.

[90] la pluie me semblait être une image du cours de la pensée, fixe un instant dans la lumière et disparaissant en même temps pour se succéder à elle-même. Car qu'est-ce que penser - si ce n'est à autre chose ? C'est le cours qui est beau, oui, c'est le cours, et son murmure qui chemine hors du boucan du monde.

entire expanse of immobility which precedes life all that which follows it. (113)[91]

He realizes that in the end his picture, the immobile image of his face is not and cannot be one which is still, but one which can only be captured while in motion. He cannot take his picture because he cannot stop time. The photo, literally taken on the run, though, will capture the pause, the effort to slow time, however blurry, and will order the move from noise to information in a constantly moving world. Although immobile, the photo will still only be an instant, stopped in time marking a before and after moment in his life. In all the hustle and bustle of his life as represented in his fleeing while furiously snapping random pictures not taking the time to look through the view finder, he finds immobility in the midst of this chaos. In due course, the narrator has the photos developed and in fact the ones he had taken had been overexposed. Looking at the negatives he perceives that "here and there a few shapeless shadows like imperceptible traces of my absence" (116).[92] Despite his frantic efforts, he is still incapable of taking his picture, and stopping time. Only chaos is certain in his world. What he does see, ironically, is that in the background of one of the pictures that had been taken by the owners of the camera is unknowingly a silhouette of Pascale, his driving school instructor. This again represents an "almost taken" photo of the narrator, denoting the pure randomness of life despite efforts to order it.

The novel concludes with the narrator having passed the night in a solitary phone booth in the middle of nowhere as and he attempts one last time to slow time: "I was

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[91]je fuirais de toutes mes forces, mes pieds sautant des marches, mes jambes en mouvement survolant les rainures métalliques des marches du bateau, la photo serait flou mais immobile, le mouvement serait arrêté, rien ne bougerait plus, ni ma présence ni mon absence, il y aurait là, toute l'étendue de l'immobilité qui précède la vie et toute celle qui la suit.

[92] ça et là quelques ombres informes comme d'imperceptibles traces de mon absence.

watching the day appear and was dreaming simply of the present, the present moment, trying to pin down once more its fugitive grace – like one would immobilize the end of a needle in the body of a living butterfly. Living" (126).[93] The butterfly, although its body immobilized, would continue to flap its wings in a furious motion resisting immobilization. As with life, one instant may be held stationary while all the other elements and inputs would continue to flutter wildly about, continually offering "information" that could not be immobilized. The final word of the novel, "living," suggests that the needle does not kill the butterfly, just as pining down an instant in time will not prevent time's progression.

Repetition

One result of dissipative structures is the spontaneous creation of order out of chaos. Above, an attempt to slow time through immobility offers one example of slowing the encroaching chaos. Furthermore, repetitions are a result of this emerging order which slow the slide into chaos. In many of Toussaint's works discussed above, immobility is a mechanism through which characters attempt to slow or stop time. A result of this slowing is deferred chaos. Repetition of dialogues and description is another. In *La Salle de bain*, Chapter 1, paragraph 10 is approximately the same as Chapter 3, paragraph 49. The only difference between the paragraphs is that in Chapter 1, a reference to the narrator's invitation to the Austrian Embassy is located in the paragraph just prior (paragraph 9) and in Chapter 3 this detail opens paragraph 49. Both these paragraphs illustrate the narrator's reticence to leave the bathroom:

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[93] je regardais le jour se lever et songeais simplement au présent, à l'instant présent, tachant de fixer encore une fois sa fugitive grâce – comme on immobiliserait l'extrémité d'une aiguille dans le corps d'un papillon vivant. Vivant.

> Sitting on the edge of the tub, I was explaining to Edmondsson that it was not perhaps very sane, at twenty-seven years old, soon twenty-nine years old, to live more or less as a recluse in the bathtub. I should take a risk, I was saying, my eyes lowered, in caressing the enamel of the tub, the risk to compromise the quietness of my abstract life for. I didn't finish my sentence. (15 ;122)[94]

In fact, this scenario is also repeated in the paragraphs preceding the ones from Chapters 1 and 3. For the narrator, social situations mean chaos. He prefers the orderly, solitude of the bathroom. However, the narrator notes his age and the inevitable, if not unrealistic, advancement in age from twenty-seven to twenty-nine, explicitly jumping over twenty-eight. Whether he stays in the bathroom or whether he compromises his quiet life, time will move forward. Thus, there is no stopping time. Nevertheless, the repetition of this paragraph offers a chance to slow the time of the narrative. Toussaint claimed in an interview that "I didn't want to name '28 years old', a sort of superstition […] of even numbers in general and '28 years old' in particular. I was 26 when I was writing this passage. I preferred the character to be 27 years old thus I found the formula" (Ammouche-Kremers 32).[95] The life that the narrator will receive in exchange for forfeiting his in the bathroom is not enunciated, suggesting that the narrator cannot bring himself to admit the chaos which awaits him. Furthermore, life outside the bathroom is unpredictable. Nothing about the past can predict the future therefore it can be indescribable.

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[94] Assis sur le rebord de la baignoire, j'expliquais à Edmondsson qu'il n'était peut-être pas très sain, à vingt-sept ans, bientôt vingt-neuf, de vivre plus ou moins recluse dans la baignoire. Je devais prendre un risque, disais-je les yeux baissés, en caressant l'email de la baignoire, le risque de compromettre la quiétude de ma vie abstraite pour. Je ne terminai ma phrase.

[95] Je n'avais pas envie de nommer 28 ans, sorte de superstition […] des chiffres pairs en général et du '28 ans' en particulier. J'avais 26 ans lorsque j'écrivais ce passage. Je préférais que le personnage en ait 27 alors j'ai trouvé cette formule.

The one line paragraphs that repeat immediately following these paragraphs is "The next day I left the bathroom" (16;122).[96] One distinct difference is that in Chapter 1, the verb "to leave" is conjugated in the *passé simple*, a French tense which is only used in literature that is otherwise not written or spoken. This conjugation is used liked the *passé composé*, or the past tense, for actions of limited duration, a sudden action, or limited repetition, suggesting that the narrator will not be out of the bathroom for very long, that his leaving was a sudden occurrence, or that he will not be leaving the bathroom too many times. Toussaint has also commented on his usage of the *passé simple*, offering this explanation: "I really like the *passé simple*, they say it's the present in the past, it's true that all that I write is always the present, the instant. There is very little past, future; it's always in the moment that everything, everything that could be metaphysical is perceptible" (Jourde).[97] Consequently, the act of leaving the bathroom can be thought of as an event, an instant, which has really no connection with the narrator's prior contemplation of risking leaving the bathroom.

This conclusion emulates the notion in chaos theory that due to spontaneous self-organizing systems, i.e. dissipative structures, events cannot be traced back to the prior event as the self-organizing was completely random. The verb in the *passé simple* leaves the reader to speculate what the relationship is between the narrator pondering leaving the bathroom and the actual act. What the verb in the conjugation does suggest is that the

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[96] Le lendemain, je sortis de la salle de bain. And : Le lendemain, je sortais de la salle de bain.

[97] Ça me plaît beaucoup le passé simple, on dit que c'est du présent dans le passé, c'est vrai que tout ce que j'écris c'est toujours le présent, l'instant. Il y a très peu de passé, d'avenir, c'est toujours dans l'instant que tout, tout ce qu'il peut y avoir de métaphysique, est perceptible.

narrator's disordered state of mind, as evidenced by his inability to complete his sentence, evolved into information which was that he left the bathroom.

At the end of the novel, the verb is conjugated in the *imparfait*, or imperfect tense, which implies a repetitive action in the past or is used as description. Thus, the action of leaving the bathroom repeatedly implies that this action will serve as a self-organizing event for the narrator in the midst of his chaotic life. Exactly when and under what circumstances this will occur is unknown. Toussaint has suggested that *La Salle de bain* could be read chronologically in two ways. One could start with "Paris" Chapter 1 and read from start to finish. Another could also start with Chapter 2 "Hypotenuse" and then read Chapter 3 and then Chapter 1. If the latter method is used, the imperfect tense at the end of chapter three suggests this action of leaving the bathroom will happen again.

The notion of movement from noise to information, or chaos to order, offers an interpretation of these repetitive events that goes beyond an analysis which simply states that Toussaint's characters and plots are reticent and indecisive in reaction to contemporary society. This repetitiveness, characteristic of Minimalism, focuses the emphasis on the banal. Dissipative structures, according to Prigogine and Stengers, do exist in everyday life. However, the notion of dissipative structures offers the possibility of viewing these repetitions as not simply a focus on the quotidian, but also as a narrative tool that can offer the reader information in the midst of a novel that seems rather superficial and noisy as discussed above.

Rick Altman, in his work *A Theory of Narrative* (2008) proposes new approaches to examining narrative, one of which is to understand a narrative as a

> series of individual following-units, joined by modulations and arranged in
> a particular manner. Each narrative text thus displays a specific

"following-pattern." Our perception of any given narrative is heavily marked by the interdependence of individual following-units and the overall following-pattern perceived in the text. By the same token, the pattern perceived in any given text depends in part on the range of patterns we have previously experienced. One of the major missing links in our understanding of narrative is a general account of the various following-patterns that characterize narrative organization. (26-27)[98]

This analysis posits that chaos theory, and specific to this chapter, the notions of entropic, negentropic and dissipative systems offer the unconventional and perhaps until now rarely-encountered "following-pattern" needed to interpret Toussaint's texts. As such, this following-pattern draws its influence from the contemporary cultural topography in which Toussaint's works were written.

In *Monsieur*, the characters do not really know each other that well. The characters will construct facades to appear that they know someone well, when in fact, just the opposite is true. Earlier this analysis showed how these relationships contribute to the "noise" in Toussaint's novels. This investigation proposes that the actual act of repetitively realizing that people hardly know each other, *connaître à peine*, can serve as a dissipative structure, allowing order out of chaos, information from noise. Monsieur does not seem to really know his fiancée, Madame Pons-Romanov hardly knows either Kaltz or the guests at her weekend house party, and Monsieur does not really know Anna Bruckhardt. That this "unknowingness" is wide-spread in the novel underscores the lack of information friends and neighbors have about one another, but it also serves to offer pockets of continuity or sameness in a society that is clearly disconnected. Most people hardly know each other but conversely, they all share the common trait of

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[98] Altman defines following-units not as "point of view" but as "a series of segments each made up of that portion of the text where a character (or group of characters) is followed continuously" (22). He defines modulations as the "transitions from one following-unit to another" (23).

unknowingness. The characters names alone represent diverse backgrounds, Monsieur being the quintessential unknowable character beginning with his indistinct name. Toussaint even claims that he spends a lot of time searching for his characters names which are not all French. As a result, the characters do not seem to share a similar culture, although they are all living in Paris. About the only thing they do share is their ignorance of others, and this is an ignorance they all seem to embrace. None of the characters seem concerned about the superficiality of their relationships.

This communal ignorance may serve to slow the encroaching chaos of a society that only shares anecdotes in the respect that it seems to act as a locus of order, however chaotic, offering some information in a world that seems unknowable. Recalling Altman's narrative framework, this communal ignorance constitutes a Toussaintian following-pattern associated with dissipative structures. Without thinking in terms of dissipative structure "following-patterns", the reader may simply take these instances only as a general commentary on the disconnectedness of society and ignore that these instances actually work to advance a narrative based on fragmentation, noise and information.

Another repetition found in *Monsieur* is the phrase "People, really."[99] This phrase appears approximately eight times throughout the novel. Two of these instances occur immediately following a meeting between Monsieur and some clients at his office, the first of these appearing as a one-line paragraph. That this phrase initially appears alone emphasizes the pertinence of the phrase to the development of text and serves as one of the few descriptors in the work. This reinforces Monsieur's comical, even ironic,

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[99] This English translation for all quotes from *Monsieur* are from John Lambert's translation of *Monsieur* (Champaign, IL: Dalkey Archive Press, 2008). Les gens, tout de même.

perspective on the world. The second time the phrase appears is at the end of a paragraph, without parenthesis, just after a business meeting stating "Well, well, other questions gentlemen? said Monsieur at the end of the meeting. No. And *Madame*? he added in nodding his head with respect to address the only woman present, not bad moreover, but must wait and see. People, really" (92).[100] The lack of parenthesis suggests that in this instance, the phrase is less comical and more matter-of-fact.

The other six times, the phrase appears in parenthesis. Recalling Toussaint's claim, the majority of his parentheses are comical. The scenarios are humorous and absurd: the doctor sizing up Monsieur's height while backing him into a corner, Schrödinger's cat being killed in the thought experiment, Kaltz's excitement at being Monsieur's neighbor (as if he had never had one before and given the superficiality of relationships discussed above), Ludovic finishing his recitation on physics and not noticing Monsieur has left the room and is now on the street looking up at him through the window, people bragging about their trips and exaggerating the beauty of their photos, and Anna and Monsieur thinking of people stuck in an elevator during the power outage. Consequently, the phrase takes on a more ironic and playful tone.

These parentheses also create authorial intrusion or the impression that the narrator is now speaking directly to the reader as if to involve her in the joke and the commentary on human beings and their stupidities and their ambition in the story. However, the other important aspect of authorial intrusion is that it prevents the readers from experiencing the emotions of the characters when the characters experience the event. The author cuts short the identification between reader and subject. Using this

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[100]Bien, bien, d'autres questions, messieurs? disait Monsieur au moment de lever la séance. Non. Et madame? ajoutait-il en inclinant la tête avec respect à l'adresse de la seule femme présente, pas mal du reste, enfin faut voir. Les gens, tout de même.

phrase in this manner only reinforces not only the character's inability to know each other but also the reader's inability to really know the characters. Thus, a device which appears more personable to the reader actually distances her from the text. Accordingly, the insertion of this phrase acts as a dissipative structure as it pulls the reader out of the chaos briefly to reinforce directly to her the irony and disconnectedness of the text and society. While authorial intrusion traditionally serves to bring the narrator and the reader closer together, Toussaint uses it as a rhetorical device with the intention to organize this narrative.

Noisy Games: From Noise to Information

Sports and games are prevalent in Toussaint's texts and as such, merit investigation as another example of noise.[101] As much as the narrator in *La Salle de bain* claims to fear distractions as that would mean he could miss time passing, he does play quite a few sports and games. The act of playing delays but does not inhibit the narrator from facing the inherent chaos in life. In addition to playing games, he is also an avid sports spectator. He frequently watches soccer while at home in Paris and while in Venice as a way to fill his time and bring routine to his day. The narrator befriends the barman at his hotel in Venice and they discuss other sports such as cycling and car racing. Essentially, discussing sports brings temporary structure and order to his interaction with the barman, however superficial. Conversations can be unpredictable, but games offer a framework through which to direct and order the interaction. He also watches a soccer match with Edmondsson but he essentially ignores her and sits about

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[101] Games in this dissertation represent board games and card games as opposed to sports such as soccer, etc.

two feet from the television. Soccer, cycling and car racing are all sports which are a race against time. Watching time pass during these sports offers the narrator the opportunity to mark time's passage while simultaneously remaining outside this 'constructed' time, as he is not a participant and is only a spectator, and thus suspending time for a brief interval. Consequently the structure of the sport, as with games, however filled with chance, offers the possibility of slowing chaos.

He also wants to play tennis while in Venice. Edmondsson does not want to play, but he ultimately gets an invitation to play from his doctor in the hospital whom he meets after Edmondsson's departure. The narrator does not have any motivations for his days and as such, outside the bathroom, his days will be unstructured. As a spectator and a willing participant, he passively and actively brings structure to his day through sports. However, he ultimately does not play tennis as his partner decides not to play, leaving the narrator to wander aimlessly around the country club as the doctor and his wife play. Using sports as a way to structure his time, even though he claims to fear diversions, does not, however, permanently stop chaos from infiltrating his life. In fact, in Venice, after not being able to play tennis, the narrator asks "What was I doing here?" (116).[102] Not being able to play the tennis match offers the protagonist a lucid moment into how games can distract him from real purposes in life. With his question, he acknowledges the futility and pointlessness to his being in Venice. Games have only been a distraction offering no real meaning to his life.

One game the narrator becomes fixated with while in Venice is darts which also serves to stop time. He says "I was very focused when I was playing darts. Immobile against the wall, I clinched one tightly between my fingers. My entire body was rigid, my

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[102] Que faisais-je ici?

eyes intense. I stared at the center of the target with an absolute determination, clearing my head of all thoughts – and throwing" (62).[103] Darts requires that the player stand still. The narrator associates his own immobility with suspending time's passage. While he may be extremely focused while playing, he also admits that it relaxes him ridding him of chaos (83).

Furthermore while Edmondsson is visiting museums, the narrator stays in the hotel and creates a dart tournament involving five countries: Belgium, France, Italy, Sweden, and the United States. Ultimately, Belgium, the narrator's country, defeats the French in the finals. One player throwing darts can slow time by removing the player from "real time" and inserting her into artificial "game time." Furthermore, a tournament among five countries extends the time of play a great deal, including the introductory rounds, quarterfinals through the finals supposedly suspending time's passage even more. Traditionally darts is a social game often played in bars. Creating his own 'social' situation in his hotel room through the five countries, the narrator simulates communication however artificial and however brief. In this instance, the protagonist is manipulating the rules of the game to satisfy his own desires to slow time. Instead of playing with others, he chooses to play alone but in so doing he creates his own social circle which extends to an international realm. The protagonist chooses the expanse of "simulated" chaos he is willing to allow.

Darts is also a game that requires skill and precision and which helps to slow the chaos. As stated above, the narrator immobilizes himself and exerts large amounts of concentration, offering him structure and order. According to Pertti Alasuutari,

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[103] J'étais très concentré lorsque je jouais aux fléchettes. Immobile contre le mur, j'en serrais une entre mes doigts. Tout mon corps était tendu, mes yeux étaient intenses. Je fixais le centre de la cible avec une détermination absolue, faisais le vide dans ma tête – et lançais.

> Accuracy is only one of the skills needed by dart players. A certain amount of mental arithmetic is necessary for many games, and this proves difficult for some […] The ability to work out scores quickly and accurately is a highly regarded skill at least in the eyes of the regular players. (24)

Not only does the game require physical accuracy in throwing the dart, but also mental accuracy in keeping score. Both these requirements introduce order to chaos surrounding the narrator. Common to many games and sports, the points can be used to specifically control and mark the passage of time between rounds.

The narrator, when he looks at the target says he did not know why it reminded him of Edmondsson instead of Jasper Johns, the American artist (84). Johns created a series of paintings and drawings of targets and was a precursor to minimalist art. As stated earlier, repetition results from dissipative structures, gendering order out of chaos. The physical form of a dart board and Johns's target series consist of concentric circles which repeat all the way to the bull's eye. These successive circles do resemble each other and are ordered according to a well-defined structure but are still able to distinguish themselves from each other due to their difference in size. Likewise, the repetitive actions and phrases, immobility and games attempt to slow time's progress and to repel impending chaos from the protagonist's world. Each of these is similar to each other while each one remains distinct in its own right.

Likewise, the thrower's movements consist of the same, repetitive motions. Consequently, this repetition attracts the player's gaze to fixate on the center suspending all perception of motion. Yet, the narrator, when gazing at his dart board thinks of Edmondsson. This suggests that the narrator's gaze is continually drawn back to Edmondsson in spite of the chaos in his life, and that she represents the ultimate target of

his gaze although she remains hard to attain. Similarly, the dart board stares back at the narrator implying Edmondsson's constant gaze on him trying to figure out why he is in Venice. He tries to "pin her down" when he throws a dart into her forehead after she presses him to return to Paris. Edmondsson returns to Paris after this incident without the narrator, and he never again mentions the darts. His target has left.

Monsieur plans a trip to Cannes, and when his fiancée asks him why he is going, he says he had no idea, but will see when he gets there. Instead of site seeing, Monsieur decides to fill his time initially by playing games. The day he arrives he first bets on horse races then goes to a café where he plays billiards. The first, betting on horses, is a game of chance, embodying his attitude of his Cannes visit. Usually, a better has several horses on which she can bet, but she must only choose one, influenced perhaps by the odds against or for to win. Monsieur lets chance and diversion guide his trip rather than a planned itinerary.

On the other hand, Monsieur actually plays billiards and thus more directly influences who wins the game. Billiards is also a game of practice requiring tactical and technical skills. Theoretically, billiards is used as a model for Newtonian description of collisions between two bodies. However, as in the game of billiards, in real life, objects are subjected to friction, spin, and other various forces. Consequently, over time, billiard ball motion has been shown to become chaotic. Monsieur is a specialist in modern physics, frequently citing Prigogine, Schrödinger, and the Copenhagen group suggesting he is comfortable playing billiards as he understands the mechanics of billiards and chaos. Furthermore, he is quite a good player suggesting he either practices often or that he actually plays frequently implying repetition. Monsieur plays against an older

gentleman in Cannes who Monsieur believes was probably a great player when he was young, but he had no chance playing in his old age against Monsieur. He can also be considered a 'tactical' person as Monsieur seems to live his life tactically trying to avoid meaningful relationships and is satisfied with more superficial ones. This is evident in his inclination to tell anecdotes. As with many games, the "initial conditions" of the game continually change and each player is forced to play the game using the available information, such as the placement of the billiard balls after each turn. Billiards does offer some order nonetheless: teams are divided between the solid and striped balls, and a team will win by sinking all their balls and the eight-ball into the pockets first. Although Monsieur seems to be knowledgeable in contemporary science and seems to organize his undefined time in Cannes around games, the narrative structure is still created on a following-pattern of dissipative structures: one in which chaos cannot be avoided just delayed as chance is inherent in the prevalence of games Monsieur and others play. In addition, Monsieur's (ultimately Toussaint's) knowledge of contemporary physics would also suggest that he is aware of the role of chance in science and thus that order will not reign long. If Toussaint uses games as one method of slowing the slide into chaos, Ernaux's autobiographical texts offer examples of noisy information which slows the inevitable chaos.

Noisy Explorations in Autobiography

This section will examine how noise can serve as information in Ernaux's *oeuvre*. Immobility and repetition are two forces slowing this confusion, just as in Toussaint's works discussed above, Ernaux's *Passion simple*, *Se perdre*, and *L'Usage de la photo*

offer pockets of order in this movement toward chaos which can be viewed as an attempt to slow the encroaching disarray. Noise, as understood in science, can either inhibit communication or serve as information. Whereas immobility and repetition in Toussaint's corpus serve to activate an otherwise reticent contemporary novel, these concepts illuminate Ernaux's explorations in autobiography.

Immobility

In *Passion simple*, the narrator's life revolves around staying in her apartment waiting for "A." to call. She states: "I didn't do anything else except wait for a man: that he would call me and come to my house" (13).[104] Leaving her apartment would mean interacting with the outside world and thus either cause her to miss "A."'s call or occupy her time such that she could not meet "A." at her apartment. Admittedly, she wants to eliminate all other distractions in her life "These moments of detachment, ephemeral, came from the outside, I didn't seek them out. On the contrary, I avoided the situations which could snatch me from my obsession, readings, outings and all activity for which I enjoyed before" (41).[105] Her obsession may invoke confusion and disorder in her life but staying at home and blocking out the rest of the world eliminated any peripheral chaos. In essence, the only order in her life was her mission to stay home and wait. Whereas Toussaint's narrators sought refuge from a general malaise of the outside world, Ernaux's narrator uses immobility to serve her desire.

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[104] je n'ai plus rien fait d'autre qu'attendre un homme: qu'il me téléphone et qu'il vienne chez moi.
[105] Ces moments de distanciations, éphémères, venaient de l'extérieur, je ne les recherchais pas. Au contraire, j'évitais les occasions qui pouvaient m'arracher à mon obsession, lectures, sorties et toute activité dont j'avais le goût avant.

Se perdre does not talk as explicitly about avoiding the outside world and waiting as does *Passion simple*. However, immobility is constantly present as the narrator slips into a lethargic depression which inhibits her from going out and experiencing any sort of productivity: "Today, did nothing (text on the USSR alarming)" (128), "11 o'clock. No. Everything is infinitesimally difficult, correct papers, speak a few words in Russian (what's the use)" (136), "No desire to work on my text, finished and hopeless" (139), "I am in a psychologically comatose state" (150), and "The immense habitual fatigue, impossibility to do whatever" (190).[106] She even wants to halt two days that she believes will be the last time she sees him: "I would like to immobilize these two days, the wait being that of *never again*" (original emphasis; 277).[107]

She does make one voyage alone to Florence, recalling Toussaint's narrator in *La Salle de bain* who flees to Venice, where she decided to leave her husband of 18 years in 1982 and gain her freedom and independence. However, she is not seeking freedom from "S." and she questions and regrets why she is even in Florence recognizing "everything is different" (247).[108] Similar patterns of lethargy pervade her vacation as it does Toussaint's narrator. However, Ernaux's narrator is plagued by desire and not simple Toussaintian inactivity: "Rain. Discouragement. Dreams, dreams, making love to S." (255).[109] Upon her return, similar patterns resurface: "Since my return, silence. Absolute horror of all activity, wait, a torn heart, without tears" (262).[110] *Passion simple* thus offers evidence of her physical immobility while *Se perdre* offers proof of her mental and

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[106] Aujourd'hui rien fait (texte sur l'URSS, angoissant) (128) ; "11 heures. Non. Tout est infiniment difficile, corriger les copies, faire quelques mots de russe (à quoi cela sert-il) (136). ; Aucune envie de travailler sur mon texte, terminé et nul. (139) ; Je suis dans un état psychologiquement comateux (150) ; L'immense fatigue habituelle, impossibilité de faire quoi que ce soit (190).

[107] Je voudrais immobiliser ces deux jours, l'attente étant celle *du plus jamais*.

[108] tout est différent

[109] Pluie. Découragement. Rêves, rêves, faire l'amour avec S.

[110] Depuis mon retour, le silence. Horreur absolue de toute activité, attente, cœur serré, sans pleurs.

psychological immobility. Consequently, waiting and lethargy help slow her inevitable slide into a state of chaos.

In *L'Usage*, the pictures offer the reader a moment in time which Ernaux and Marie tried to capture through the physical traces of clothes. Ernaux mentions that she hopes the photographs will capture, isolate, and make still the arrangement of the clothes created by desire and chance and which is sworn to disappear (12). The picture will allow a frame through which to organize the chaotic result of chance and desire. However, she and Marie both realize that the picture does not capture the reality that they hoped. Ernaux remarks of one photo, which is applicable to all photos in the work: "Everything is transformed and disembodied. Paradox about this photo which is destined to give more of a reality to our love than to not realize it. It doesn't stir anything in me. There is nothing more here either life or time. Here I am dead" (188).[111] Thus, even if the photos themselves represent still, orderly images created by disorder, their enduring legacy creates a sense of loss and an unavoidable entry into the fleeting world of attraction, desire, and disarray. Accordingly, in her explorations in autobiography, Ernaux underscores the difficulty and indeed futile quest to capture and order our relationships with and desire for others either through mental or physical waiting or material images. Consequently, despite the immobility of the photographs, chaotic desire still cannot be pinned down, suggesting that desire is rarely ordered.

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[111] Tout est transfiguré et désincarné. Paradoxe de cette photo destinée à donner plus de réalité à notre amour et qui le déréalise. Elle n'éveille rien en moi. Il n'y a plus ici ni la vie ni le temps. Ici je suis morte.

Repetition

Repetition of events and actions is another way Ernaux seeks to order the chaos in her life. In *Passion simple*, she tries to create repetitive circumstances to organize her time:

> If I went to a place where I had been last year when he was here – to the dentist or to a staff meeting –, I would put on the same suit as before, trying to persuade myself that the same circumstances would produce the same effects, that he would call me on the phone that night […] I realized that I had truly believed in his call all day. (56-57)[112]

This admission underscores her faith in the past to restore her relationship with "A.". She also already knows exactly the effects it produced between her and "A.". However, she ultimately realizes that she was only deluding herself, recognizing that the familiarity and certainty of the past cannot be recreated.

Furthermore, this awareness also suggests the uncertainty even of past events: if they cannot be recreated, exactly how predictable were they actually? Ernaux's exploration of desire in autobiography implies the unpredictability of all events, past, present, or future. Ernaux prefers to write her texts in the *imparfait* (imperfect) as it implies a continual repetition of actions without finality (61). In *Passion simple*, she attempts to recreate physical actions as well as verbally describing them to systematize her life at this time despite the evolving disorder.

In *Se perdre*, unlike in *Passion simple* where Ernaux seeks to recreate certain situations, she is trapped in an unrelenting cycle of wasting her time: "The cycle starts again: a mournful, anesthetized day" or "I now am in the habit of wasting my time

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[112] si je me rendais dans un endroit ou j'étais allée l'année dernière quand il était là – chez le dentiste ou à une réunion de professeurs-, je mettais le même tailleur qu'alors, essayant de me persuader que les mêmes circonstances produiraient les mêmes effets, qu'il m'appellerait le soir au téléphone […] je me rendais compte que j'avais réellement cru a cet appel toute la journée.

without dread or culpability" (218).[113] She recognizes the same pattern with all men: "My relations with men follow this same invincible course" (77).[114] In addition, her apathy to this wastefulness reveals an attempt to shelter herself from the negative social expectations of not wasting time. Using her time wisely suggests an effort on her part to sort through the demands of the outside world. As with the *imparfait* in *Passion simple*, Ernaux acknowledges the certainty her writing offers: "Yesterday this certainty, I write my stories of love and I live my books in an incessant circle" (269).[115] Despite the chaos that tends to plague her relationships, she can see an overall structure surfacing from this situation. Repetition creates order in her life of passion and obsession. As such, these repetitions, which may seem to clutter her life, actually serve to offer information about her chaotic existence consumed with desire.

In contrast to *Passion simple* and *Se perdre*, Ernaux's and Marie's act of taking photos in *L'Usage de la photo* creates a repetitive gesture amidst the chaos of desire and passion: "Week after week, the photos accumulated. More than a dozen in all. From a spontaneous gesture, the act of photographing became a ritual" (40-41).[116] Thus, the creative act of capturing the disarray of clothing itself becomes banal and does not fulfill the expectation of isolating but yet preserving the passion and desire of the moment. Not only does the physical act of capturing the frenzied scenes become repetitive, but she claims that even the objects in the picture are recurring. She characterizes the clothes as "Not the weapon of a crime, but the repeated signs of a battle" (195).[117] The clothes no

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[113] Le cycle recommence: une journée dolente, anesthésiée ; J'ai maintenant l'habitude de perdre mon temps sans effroi, ni culpabilité.

[114] Mes relations avec les hommes suivent ce cursus invincible.

[115] Hier, cette certitude, j'écris mes histoires d'amour et je vis mes livres, dans une ronde incessante.

[116] Semaine après semaine, les photos se sont accumulées. Plusieurs dizaines en tout. De geste spontané, l'acte de photographier est devenu rituel.

[117] Pas d'arme du crime, mais les signes répétés d'une lutte.

longer represent unique seduction moments, but a repetitive battle of passion and desire. Ultimately, as mentioned above, Ernaux realizes that the pictures do not preserve the passion and associated memories with each photo, but causes Ernaux and Marie to become more estranged from the event.

From Information to Noise

Philippe Réfrégier in his work *Noise Theory and Applications to Physics* characterizes noise as fluctuations in a system, fluctuations that are best described mathematically through probability theory (2). Fluctuations or noise are in essence the result of a high number of "degrees of freedom"[118] that is unidentified due to the complexity of the system and can only be described in terms of probabilities. When speaking about the role of fluctuations relative to the spontaneous appearance of dissipative structures (order-out-of-chaos structures), Nicolis and Prigogine claim they are only interested in the "*internal* fluctuations generated by the system itself. The influence of external noise on the instabilities and the associated bifurcation phenomena has been recently analyzed by Horsthemke and Malek-Mansour (1976)" (Prigogine and Nicolis 224). Consequently, relevant to this analysis, they equate noise with fluctuations which can either lead to an increased disorder in a system or can lead to self-organizing (dissipative) structures.

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[118] Degree of freedom is defined as the aspects about the system that is free to be given a certain constraint; For example, a shopper has $100 and wants to buy a shirt, shoes and a scarf. The shirt, shoes and scarf are not "fixed": the shopper can buy a red, blue, striped, etc shirt, the shoes can be boots, flip flops, sandals, etc; the scarf can be silk, cotton, linen, etc. The only parameter that is fixed is the $100. In this "system" there would be three degrees of freedom although four "entities" (shirt, shoes, scarf, and $100) exist. In physics, the more complicated a system, the higher the number of degrees of freedom thus increasing the difficulty in properly identifying all aspects.

To begin with the former notion of increasing disorder, the second law of thermodynamics claims that the entropy of a system, that is the measure of disorder in a system, will always increase. A system in contact with another system (think adding ice to hot water) will evolve over time such that while the system may eventually reach a thermal equilibrium (warm water) our knowledge about the state of the hot and cold water molecules decreases reducing the ability to accurately describe the system. Thus, the "information" we have about the system (one cup of hot water molecules and one cup of cold water molecules in a specific location (the cups) for example) disintegrates.

Although the amount of molecules will stay constant when the two systems come into contact (no water is destroyed in combining the two), their placement or state when they are mixed becomes less clear, less knowable, and thus more chaotic or "noisy." Over time, as the entropy increases, a system becomes more disordered. As Taylor states in his book *The Moment of Complexity: Emerging Network Culture,* "The most probable state is one in which differences become indifferent and thus in which a signal dissolves in noise. If information is understood as a difference that makes a difference, noise can be interpreted as either the lack of differentiation or the profusion of indifferent differences" (119). In non-equilibrium processes, randomness or lack of differentiation will always increase. Accordingly, noise will increase.

Furthermore, Taylor claims that systems that contain randomness are also irreversible because, as their creation was arbitrary, it is impossible to reverse a process to recreate these "arbitrary conditions" (117). As discussed in Chapter One, the Arrow of Time affirms the irreversibility of non-equilibrium processes. As such, Taylor notes that "the arrow of time follows a trajectory from information to noise" (117). It is this

trajectory from information to noise that will launch a continued analysis on *La Salle de bain* and *Monsieur* by Jean-Philippe Toussaint.

Noisy forms

The form of *La Salle de bain* immediately suggests ordered, differentiated information. The book is divided into three distinct chapters entitled "Paris", "Hypotenuse", and "Paris" strongly suggesting the chapters take on not only a mathematical quality of a right triangle but also the spirit of Newtonian order which is predictable, time-reversible, and regular. Indeed the novel's epilogue is the Pythagorean Theorem: the square of the hypotenuse is equal to the sum of the squares of the other two sides. Pythagoras was a Greek mathematician and philosopher and the proof of his theorem can be found in Euclid's *Elements* and is an important aspect of Euclidean geometry.[119] In an interview with *Les Inrockuptibles*, Toussaint claims that as he was writing *La Salle de bain* that: "[I] had an overview, I had an idea about the three parts as a triangle" (Jourde).[120] He has envisioned them not only as a triangle, but as a right triangle as suggested by the "information" of Pythagoras' theorem. A right triangle typically serves as the point of departure in the Pythagorean Theorem for solving for mathematically either the sides, angles or both of other non-right triangles. In this regard, Pythagoras' theorem as the epilogue lays the clear foundation for the establishment of a

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[119] Euclidean geometry served as the basis for Newton's classical mechanics. Non-Euclidean geometry would be conceptualized in the nineteenth century but it would not be until the early twentieth century that the notions in non-Euclidean geometry would be employed. The biggest difference between the two is the properties of parallel lines. Euclidean geometry clams that infinitely long parallel lines that are bisected by a line will remain at a fixed distance apart. Non-Euclidean geometry shows that infinitely long hyperbolas can be bisected by a perpendicular line and maintain a fixed distance apart up to a certain distance, after which the lines curve away (or toward) each other, destroying the fixed distances. Applications of Non-Euclidean geometry include Einstein's geometry of space-time and fractals.

[120] J'ai eu une vue d'ensemble, j'ai eu l'idée des trois parties comme un triangle.

frame that emulates the formula. In addition, within each chapter, the paragraphs are numbered containing 40 in the first chapter "Paris", 80 in the second chapter "Hypotenuse", and 50 in the final chapter "Paris." Toussaint claims that

> This manner of writing in paragraphs is very visual I think. It pleases me to see closed blocks of different sizes. At the beginning, I did not know I was going to write in this manner, but I began *La Salle de bain* in numbering the paragraphs. The numbers, it gives a sort of authoritative force, like in an official report 1 for this 2 for that and one does not doubt what is happening [..] Next I saw that it was a technique that allowed me to go from one thing to another, to advance in fragments, all while working on the transitions. (Jourde)[121]

Ultimately it was a sense of order through numbering that helped Toussaint to organize the text.

However, upon further inspection, this superficial "classical" order breaks down. The "information" that is given in the epilogue, the title of the chapters, and the numbered paragraphs, they all ultimately contribute to the movement from information to noise. Like the hot water-ice cube analogy, when these chapters are taken on their own, the reader understands that the narrative occurs in Paris in the first and third chapter. The middle chapter is the unknown and could be considered as the "ice" added to the system. Once these chapters are combined and taken as a whole they start to interact and their separation becomes less clear as will be discussed below. Essentially the life and communication between the narrator and the other characters becomes noisier and less comprehensible. Consequently, what can be seen as "information" or a difference which

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[121] Cette façon de travailler en paragraphes est très visuelle, je crois. Ca me plait de voir des blocs fermés, de tailles diverses. Au départ, je ne savais pas que j'allais écrire de cette façon, mais j'ai commencé *La Salle de bain* en numérotant les paragraphes. Les numéros, c'est pour donner une sorte de force d'autorité, comme dans un rapport administratif 1 ceci, 2 cela et on ne met pas en doute ce que se passe […] Ensuite j'ai vu que c'était une technique qui me permettait de passer d'une chose à l'autre, d'avancer par fragments, tout en travaillant les transitions.

makes a difference according to Réfrégier, is Paris. However, insert "Hypotenuse", and the reader begins to note indifferent differences.

The middle chapter is called "Hypotenuse" instead of perhaps "Venice" where the action takes place but is never named. Toussaint only gives clues with the words 'gondola' and 'Marco Polo airport.' Intentionally avoiding using similar names for all the chapters (cities or mathematical terms in this instance) suggests a mixing of a social (cities) and mathematical realm but also a clean break from either one tradition or the other representing a move from "information" to "noise." This naming scheme also suggests a bifurcation in plot which will be further discussed in Chapter Three of this dissertation. Furthermore, the number of paragraphs (40, 80, and 50) in the three chapters respectively do not mathematically "fit" Pythagoras' theorem ($a^2 + b^2 = c^2$ or $(40)^2 + (50)^2 = (80)^2$ where 4100 does not equal 6400) if chapters 1 and 3 count as the "sides" of the triangle opposite the hypotenuse (Chapter 2). There seems to be no intra- or inter-chapter relationship between the numbers of paragraphs in each chapter. Each chapter restarts the paragraph count suggesting further discontinuity in the overall format and plot of the text. Toussaint even states in an interview "What counts [in *La Salle de bain*] is to give the illusion of logic" (30).[122] His point is relevant especially as the Pythagorean Theorem can be used to construct a Pythagorean spiral discussed in Chapter One. This shape represents the irreversible Arrow of Time which is at the heart of Prigoginian chaos.

Monsieur, on the other hand, appears much less structured in appearance than *La Salle de Bain*. In *Monsieur*, there is no epigraph, no numbered paragraphs, and no chapters. What is similar to both works is the randomness of the length of each paragraph with different sizes of white space in between. Some paragraphs are a page long while

[122] Ce qui compte, c'est de donner l'illusion d'une logique.

others are one sentence and all sizes in between. Similar to the banality in the title *La Salle de Bain*, the title *Monsieur* initially suggests a story about a non-descript man. The title is straightforward. However, the title also implies an effacement of identity. The title and the character Monsieur, are non-descript signifying a character with whom everyone could identify. There is no trace of foreignness. Consequently, qualities or "information" that make a difference in distinguishing individuals from each other do not exist, and differences blend into homogeneity. In essence, the differences become indifferent, and thus the title suggests a movement from information to noise.

Entropy is the measure of disorder in a system. The longer two systems are in contact, with each other, as in the hot water-ice analogy, the greater the increase in disorder and the more difficult it becomes to distinguish the differences which make a difference. This increase is disorder can be seen as chaos resulting in a system of increasing entropy, like Toussaint's novels, illustrating a movement from information to noise, or order to chaos in this case. Information, depending on the point of view of the receiver and what she expects to receive, can be viewed as meaningless. For this argument, however, it is assumed that information implies coherence and clarity.

Toussaint's titles suggest overall a relative simplicity which sets the expectation for the work. He affirms this in an interview: "In general, I choose fairly simple titles, which define sometimes the program, like *La Télévision*, or *Monsieur* – you know what it's going to talk about. That defines the book without looking to have an effect with the title, the simplest possible" (Hansen).[123] From everyday places such as the bathroom, to quotidian objects such as the camera or the television, to seemingly familiar personalities

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[123] En général, je choisis des titres assez simples, qui définissent parfois un programme, comme *La Télévision*, ou *Monsieur* – on sait de quoi ça va parler. Ça définit le livre sans chercher à faire un effet avec le titre, le plus simplement possible.

in *Monsieur* and *Autoportrait,* to a range of typical human emotions such as reticence, love and fleeing, his titles suggest familiarity and thus something with which the reader can associate. In Toussaint's novels following *La Salle de bain* and *Monsieur*, the format varies from *L'Appareil Photo* and *La Télévision* where the format imitates that of *Monsieur* – no chapters, no epigraphs and the paragraphs have become longer while still co-existing with white spaces - to *La Réticence*, *Faire l'amour* and *Fuir* where there are distinct chapters and *Autoportrait (À l'étranger)* where, other than in *La Salle de bain*, the chapters are named after cities and countries. *Autoportrait* is also the only other work to have an epigraph like *La Salle de bain*:

> Toussaint claims that writing (*écriture*) is more important to him than a story:
>
> I give obviously a great deal of importance to the manner of writing, since, as there is not a story, only the writing remains. As soon as there is a story, writing becomes a secondary means. If there is a strong story, well structured, which advances and then all this….,writing is only a means more or less efficient which is made to follow this story and the reader is led into the story. If we take away this element, only writing is left, and it is writing itself which is going to advance it. Interest will come from writing. (Hanson)[124]

His rejection of the traditional form of the novel – description and dialogue in continuous paragraphs and appropriately divided chapters (this format clearly foregrounding the story over *écriture*) – in favor of disjointed paragraphs separated by small to large white spaces moves the reader into foreign territory structurally with little to no guide as to how to divide or partition parts of the story into "appropriate" groupings. Consequently, in

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[124] J'accorde évidemment une très grande importance à la manière d'écrire puisque, comme il n'y a pas d'histoire, il ne reste que l'écriture. Dès lors qu'il y a une histoire, elle fait passer l'écriture au second plan comme un moyen. S'il y a une histoire forte, fortement charpentée, qui avance et puis tout ça..., l'écriture n'est qu'un moyen plus ou moins efficace qui fait suivre cette histoire et le lecteur est entraîné dans l'histoire. Si l'on enlève cet élément, il ne reste que l'écriture, et c'est l'écriture elle-même qui va faire avancer. L'intérêt viendra de l'écriture.

spite of the geometrical "closed blocks of varying size" that Toussaint prefers, the structure of the novels does not provide "information" on how to read the work, but the repetitive nature of the non-discriminatory block paragraphs functions to add noise or chaos to the texts.

Finally, the title *Autoportrait (À l'étranger)* is the only of Toussaint's texts to employ a parentheses in the title, as if more qualifying information was necessary as to where the narrator would sketch his auto-portrait. This is also the only novel that he does not label as a "novel" (roman) suggesting this work is closer to reality than to fiction. Indeed Toussaint claims this is his one work where he started from reality, his own experiences, to create fiction perhaps explaining the absence of the title "novel." Toussaint offers further insight when he asserts that he nearly always uses parentheses in a comic way and that for him the parentheses give closure to paragraphs in the novel (Jourde). Assuming the same logic applies for the title in *Autoportrait (À l'étranger)*, the title can be considered comical in the sense that his auto-portrait may be different had it been sketched in his home country or humorous in that it is redundant once the reader opens the book to find the chapters describe his visits to foreign cities and countries. Lastly, it may be amusing in the sense that despite the title being marked "abroad," the auto-portrait would be the same anywhere, suggesting dissolution of differences in an auto-portrait and thus resulting in a true lack of information that could distinguish the author from someone else. Thus what is seen as a coherent title describing the content actually results in the reader receiving unclear information or noise.

Noisy content

The irregular inter-chapter relationship between numbered paragraphs in *La Salle de bain* extends to the level of content within chapters. Numbering paragraphs in a sequential order could imply an ordered connection in plot between the paragraphs. Borrowing Taylor's interpretation, information represents a distinction between facts. In fiction, dialogue is usually meant to provide complementary information to the reader. In *La Salle de bain*, the anonymous narrator has encounters rather than conversation with a variety characters: Edmondsson, his girlfriend; Edmond Kabrowinski and Jean-Marie Kovalskazinki, the artists turned housepainters turned chefs; the barman and the doctor in Venice; and the Soviet at the Venice airport. Each encounter on its own holds meaning, however, viewed as an ensemble they essentially lead not to further elucidation on the story, but rather to quote Taylor from above a "profusion of indifferent differences."

In the first chapter "Paris" Edmondsson and the narrator converse rarely and when they do, the narrator *describes* the conversation rather than giving the actual dialogue: "Edmondsson thought there was something soul-destroying in my refusal to leave the bathroom" (11).[125] Instead of addressing Edmondsson in reply, the narrator actually addresses the reader saying: "But this did not stop me from making my life easier providing for the needs of the house in working half-time in an art gallery" (11).[126] Sometimes the conversations are one-sided: "Sitting on the edge of the bathtub, I was explaining to Edmondsson that it was not very sane, at 27 years old, soon 29, to live more

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[125] Edmondsson pensait qu'il y avait quelque chose de desséchant dans mon refus de quitter la salle de bain.
[126] Mais cela n'empêchait pas de me faciliter la vie, subvenant aux besoins du foyer en travaillant à mi-temps dans une galerie d'art.

or less as a recluse in the bathroom […] I didn't finish my sentence" (15).[127] The reader gets no response from Edmondsson. The following paragraph is one sentence: "The next day I went out of the bathroom" (16) offering no details of a potential conversation between the two, ultimately depriving the reader of the narrator's thoughts and motivations. [128]

In another instance when real communication seems possible, Edmondsson falls asleep: Edmondsson asks the narrator who could have invited him to the soirée at the Austrian Embassy. The narrator responds by suggesting possible explanations of who it might be. However, when he finishes offering ideas, he asks Edmondsson what she thinks of his suggested possibilities but she has fallen asleep. Edmondsson, who asked the question, demonstrates indifference in that she cannot stay awake to listen to the narrator's response, suggesting only a superficial interest in the narrator's social activities. The paragraph immediately following this scene describes waking up the following morning to the door bell ringing quite early. Taylor proposes that a parasite, as described by Michel Serres which causes noise in communication, can be characterized as either a "present absence" or an "absent presence" with its identity being "undecidable" (101). Recalling Serres' characterization that the parasite gives rise to chaos and order, and can be simultaneously noise and information, the present absence in this case is a lack of meaningful communication or the presence of noise. Likewise, in this scene, Edmondsson embodies an "absent presence" as she is in bed with the narrator

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[127] Assis sur le rebord de la baignoire, j'expliquais à Edmondsson qu'il n'était peut-être pas très sain, à vingt-sept ans, bientôt vingt-neuf, de vivre plus ou moins recluse dans une baignoire […] Je ne terminai pas ma phrase.

[128] Le lendemain, je sortis de la salle de bain.

representing an intimate moment but is remarkably absent from the interaction. Resultantly, the outcome is "undecidable."

In her book *Passer en douce à la douane*, Fieke Schoots underscores the ambiguity, even "*désarroi*" (disarray) that critics experience when attempting to categorize French literature during the late twentieth century: "Although nearly all the critics agree there is no longer a literary school, some perceive a movement, others a tendency, and still others a generation" (17).[129] Equally, she demonstrates the indecision and confusion in designations for literature during this period: "One glues the following labels: the New New Novel; the renewal of novelistic style inaugurated by Minuit, the bathroom generation, minimalist novels […] impassive novels" (16).[130] This analysis suggests that the indecision in designations for literature of this period also penetrates the attitudes of the characters and infiltrates the plot. Later, Edmondsson and the narrator quarrel over a sweater they both want to wear although the reader never knows the exact details of the quarrel, only the subject. Not only is real dialogue non-existent in the text, but rarely is there a continuation of a conversation. After the quarrel about the sweater (which ends the paragraph) the next chapter introduces the visit of some of Edmondsson's friends to the apartment. The reader does not learn the result of the argument over the sweater. This undecided conclusion reinforces the vagueness and noisiness of the encounters between the narrator and Edmondsson. This undecidability is also present when the Polish artists clean the octopus in the narrator's kitchen. There is ultimately no conversation between the artists, the narrator and Edmondsson:

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[129] Bien que presque tous les critiques soient d'accord pour reconnaître qu'il n'y a plus d'école littéraire, les uns aperçoivent un mouvement, les autres une tendance, d'autres encore une génération.

[130] On colle les étiquettes suivantes: le Nouveau Nouveau Roman; le renouveau Romanesque inauguré par Minuit; la génération salle de bain; le roman minimal…romans impassibles.

> [Kabrowinski] told how he had passed the night playing chess in the back room of a café […] I looked at him thinking of other things. Edmondsson wasn't listening either […] We were eating in silence […] Without preoccupying themselves in the least of my presence, the Poles continued their conversation, busy and calm. (23 – 32).[131]

When conversation does take place, it is only to offer polite courtesies such as either to excuse oneself from the room or to say "bless you" after someone sneezes. Essentially, the text presents communication as ineffective and leaves the reader to complete the conversation.

On the other hand, while sitting in the kitchen with the Poles, the narrator *imagines* a profuse amount of conversations that *would* take place *if* he attended the soirée at the Austrian Embassy. Actually, the narrator imagines that in fact he would not talk at the Embassy, but would tell Edmondsson that he had. He would describe all the complicated subjects about which he eloquently postulated such as disarmament and that the Ambassador who was extremely bright and austere was extremely impressed by the "finesse of my arguments, struck by the relentlessness of my logic" (29).[132] In reality, there is no relentless logic or finesse in the narrator's arguments during his social encounters. There is only noise, indifferent differences.

No continuity exists between the end of chapter 1 "Paris" and the beginning of chapter 2 "Hypotenuse." Chapter 1 ends in the narrator's kitchen where the Polish artists are prepping the octopus: "when the rinsed octopus was once again in place,

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[131] [Kabrowinski] raconta qu'il avait passé la nuit à jouer aux échecs dans l'arrière salle d'un café […] Je le regardais en pensant à autre chose. Edmondsson n'écoutait pas non plus […] Nous mangions en silence […] Sans se préoccuper le moins du monde de ma présence, les Polonais poursuivaient une conversation, occupés et paisibles.

[132] finesse de mes raisonnements, frappé par l'implacabilité de ma logique.

[Kabrowinski] asked Jean-Marie Kovalskazinksi to please rejoin him...." (46).[133] That Chapter 1 ends with an ellipsis only reinforces the idea of an incomplete, broken thought, an omitted action and a movement from information to noise, suggesting Taylor's previously "indifferent differences." The facts the reader has to this point in the story concerning the main character, Edmondsson, and the artists leaves undefined the relevance of these lives that have been brought together. Edmondsson works in an art gallery which is selling the Polish artists' works. That she happens to ask them to paint her kitchen while waiting to sell their works offers them the opportunity to cook octopus that they happened to acquire the previous evening while at a café. This string of chance encounters offers an example of the uncontrollable chaos in life that people introduce when put together. It is exactly this sort of chaos the main character is trying to avoid.

Whether or not the Polish artists finish preparing the octopus, whether Edmondsson returns in time to join them for dinner, and anything else regarding the interaction between the narrator, Edmondsson, and the Polish artists becomes an indifferent difference as the text offers no "closure" on the episode. The reader must be content with story lines and scenes of apparently equal value but with an inherently indifferent, even unimportant, stature. Consequently, the scenes do not offer information, i.e., "differences that make a difference" about the story but simply noise. In a novel, traditionally the story is viewed as the sum of its parts: the different episodes work together to build a unified story. In *La Salle de bain*, the parts seem to take precedence over the whole and do not contribute to a unified final version. In this way, Toussaint privileges noise or fragmentation instead of continuity of plot and characters. Novels can

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[133] lorsque le poulpe rincé fut de nouveau en place, [Kabrowinski] demanda à Jean-Marie Kovalskazinski de bien vouloir le rejoindre..."

move from noise to information. Detective novels are an example of a text that seems to only offer noise, or indifferent differences to the reader at the beginning. As the story progresses, typically she can assemble the seemingly disparate parts into information or differences that make a difference. Other novels work under the same schema as well. All events and facts in a novel could be considered noise, however clear, until a relationship is established between the events. Toussaint chooses to leave the relationship between events unclear.

Chapter 2, "Hypotenuse" opens with the narrator suddenly deciding to leave Paris without alerting anyone. He waits four days before contacting Edmondsson. First he contacts her through a letter, and the reader must imagine after Edmondsson has received the letter, she phones him since the text offers no explicit causal chain for her call. When the narrator speaks to Edmondsson for the first time after leaving Paris, he simply states: "Crouched down against the wall, I whispered a long conversation with Edmondsson" (65).[134] Not only is the narrator trying to leave as small a physical footprint as possible and the sound of the conversation is muted, the reader's knowledge of the extended conversation with her is truncated. The reader must suffice simply with the description of the exchange as being "long." Consequently, the reader must imagine the conversation between the narrator and Edmondsson based on the elliptical information offered in the narrative. Following this initial phone call, the narrator and Edmondsson proceed to talk every day on such a regular basis that the narrator stops leaving the hotel in fear of missing her call. Yet, the reader still receives no "dialogue." Curiously, in an imitation of the lack of communication the reader experiences, the narrator notes "We sometimes had,

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[134] Accroupi contre le mur, j'eus à voix basse une longue conversation avec Edmondsson.

on the line, long silences together. I liked these moments" (67).[135] Equally, the reader is experiencing the "long silences together" with the narrator. What seems to offer 'information' on the relationship between the narrator and Edmondsson evolves only into non-communicative fluctuations that drive the system (novel) forward. Additionally, the narrator seems to prefer silence to communication. As will be discussed below, even when Edmondsson comes to Venice after all their conversations, she, like the reader, still does not know why the main character went to Venice and why he will not return.

Edmondsson decides to come to Venice to get the narrator without any reason offered to the reader. When she arrives, all she and the narrator do is exchange furtive glances but do not talk. When they are lying in bed looking at a magazine together, the narrator describes what they talk about: the contents of the magazine including clothes, make-up, and the beauty of the models. Nothing of substance is discussed. While Edmondsson is in Venice, there are more episodes of silence, one or the other ignoring the other, or visiting tourist sites together without speaking. A dinner conversation, the subject of which being their return to Paris from Venice, is described in few details. However, the reader gains access to the details only after the conversation "was revisited in a fragmented, rambling manner" (82).[136] After this moment, the narrator and Edmondsson hardly see each other in Venice, each having his/her "own" agenda: Edmondsson visiting museums and the narrator staying in the hotel playing darts. Edmondsson ultimately returns to Paris without the narrator after he throws a dart into her forehead following an argument. Despite hitting Edmondsson with a dart, there is no dialogue between them. The magazine episode and their non-existent dinner conversation

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[135] Nous avions parfois, sur la ligne, de longs silences ensemble. J'aimais ces moments-là.
[136] reprenait de manière fragmentée, décousue.

are two examples of "noise" that offers little insight into the relationship between Edmondsson and the protagonist.

The narrator finally returns to Paris in Chapter 3, and Edmondsson welcomes him back in a neutral voice. To the reader, the relationship is already portrayed as relatively dispassionate on a dialogical level, an aspect which is reinforced by Edmondsson's "neutral" voice, one of the few important details to indicate a character's emotion. Ironically, this emotion is vague and dispassionate indicating an "indifferent difference." There is no explanation or discussion to put closure or at least a form to the narrator's bifurcation to Venice. The narrator simply returns to passing his days in the bathroom and receiving a follow-up invitation to the Austrian Embassy.

Fundamentally, the story ends exactly where it began: in the bathroom with few details pertaining to the characters' relationships. The knowledge is only superficial not only about the events described in the story, but also about any profound causal relationship between characters and events. While Schoots affirms that perhaps plots from the Minimalist genre are the result of invisible causes, this analysis advocates that on the whole, any causal relationship, if it exists, is masked by the noisy encounters in the novel. This noise can be viewed as an innovation in the contemporary novel that serves to question the notion of a narrative.

Monsieur is another important example of Toussaint's fictional content which is characterized by a movement from information to noise. The novel begins immediately introducing Monsieur, his job, and how he likes to order his desk. Unlike the narrator in *La Salle de bain* who spoke in the first person voice, *Monsieur* is written from the third person voice. Consequently, what the reader experienced as far as exteriority from

Edmondsson and the other characters in *La Salle de bain*, the reader will experience in regards to all characters in *Monsieur*, including the title character. Consequently, while the reader is introduced from the first page of the novel to Monsieur, his office, his work habits, his fiancée and her parents, the reader is also held at a distance through the third person narrative.

The reader does have access to Monsieur's thoughts and feelings, but the feeling of intimacy is one level removed from a first person narrator. Consequently, no other perspectives are offered to the reader on situations in the book. For example, the reader does not know Anna Bruckhardt's interior feelings and thoughts toward Monsieur. Thus, while the reader can learn of others' reactions through Monsieur's eyes, the reader is deprived of their characterization of the event from multiple points of view. As a result, this analysis posits that the perspective becomes one-sided qualifying as noise since no other perspectives are offered to challenge or confirm Monsieur's evaluation of the situation. This does not imply that comparisons and a lack of information are not present. Simply the "information" appears incomplete and one-sided qualifying it as an 'indifferent difference' as no other 'difference' exists.

At one level, superficial acquaintances pervade Toussaint's works. When Monsieur and his fiancée break up, "Monsieur, in all actuality, would have been incapable to say why he and his fiancée split up. He had not really understood the matter, in fact remembering only that the number of things that his fiancée had reproached him for seemed to him to be considerable" (30).[137] Normally if one is engaged, relationships

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[137] Monsieur, à vrai dire, aurait été bien incapable de dire pourquoi sa fiancée et lui avaient rompu. Il avait assez mal suivi l'affaire, en fait, se souvenant seulement que le nombre de choses qui lui avaient été reprochées, lui avait paru considérable.

are more than superficial. In Toussaint's world, however, they only tend to generate noise instead of information. If Edmondsson and the protagonist in *La Salle de bain* talked about nothing, Monsieur and his fiancée hardly talk. In fact, Monsieur spends more time with her parents and lives with them for a while even after they break up. The reader is left to suppose why Monsieur and his fiancée are together as no details are given. The sparse details, or the lack thereof, about the relationship, only represent noise as no meaning may be gleaned from these details. It is as if two unknown characters were brought together in a book. Traditionally, characters seem to have a purpose and are developed in terms of each other as the world in the book is limited. In Toussaint's novels, however, the reverse is true: that two characters find themselves in the same book does not automatically equate to meaningful relationships. In this way, Toussaint's novels reflect the chaotic contemporary cultural topography from which he writes.

When Monsieur first meets Mme Pons-Romanov through his neighbor Kaltz, he gets the impression that she and Kaltz know each other quite well. However, "Monsieur, […] ended up by deciding to engage in conversation [with Mme Pons-Romanov] permitting himself to ask her if she was a friend of M. Kaltz. She said no, not really, they hardly knew each other" (47).[138] At Mme Pons-Romanov's weekend party, she oddly does not know some of her guests. Monsieur's relationship with Kaltz involves primarily Monsieur typing Kaltz's manuscript on crystallography. They do not do anything else socially together, other than the weekend at Mme Pons-Romanov. As such, Monsieur and Kaltz are not communicating, but simply Monsieur passively receives the "information"

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[138] Monsieur, […] finit par se résoudre à engager la conversation [avec Mme Pons-Romanov], se permettant de lui demander si elle était une amie de M. Kaltz. Elle dit non, pas vraiment, qu'elle le connaissait à peine.

to type as Kaltz dictate. Not only is their relationship solely based on Monsieur 'receiving information' from Kaltz, but Monsieur does not understand many of the words. He often agitates Kaltz when he asks how to spell the word. As Monsieur knows nothing about crystallography, Kaltz is uttering noise to him, essentially signifiers without meanings. The noise in this instance is focused on a fracture between signifiers and their signified meanings. As a result, their relationship is defined around noise rather than information.

> When Monsieur reflects on his relationship with Anna Bruckhardt he realizes
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> in fact, [he] knew nearly nothing about her. He had only met her one time at a reception given by the Dubois-Lacours […] [and they were talking] about this and that, without asking each other questions, naturally, by discretion, such that, during the entire soirée, they had not exchanged the least bit of information concerning them. No, they told each other anecdotes, rather, each taking his turn, that as they accumulated them, they became more and more insignificant, relating to others that the other one did not know and that, they hardly knew each other. (94-95)[139]

As the narrator and Edmondsson in *La Salle de bain* quarrel over sweaters and discuss superficialities in magazines, and do not address serious relational issues, Monsieur and Anna simply share anecdotes. No real 'information' is actually being communicated. Over time, any information that would be considered "a difference which makes a difference" becomes "indifferent differences." One anecdote becomes as valuable as any other. Some will tend to be more "meaningful" than others: some funny, others sad, and still others neutral. Indeed by the end of the conversation, the tales, already insignificant

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[139]en fait, Monsieur ne savait presque rien [d'elle]. Il ne l'avait rencontrée qu'une seule fois lors d'une réception donnée chez les Dubois-Lacour […] [et ils parlaient] de choses et d'autres, sans se poser de questions naturellement, par discrétion, de sorte que, de toute la soirée, ils n'avaient pas échangé la moindre information se concernant. Non, ils se racontaient des anecdotes, plutôt, à chacun leur tour, qui, à mesure qu'ils les accumulaient, devenaient de plus en plus insignifiantes, se rapportant à des gens que l'autre ne connaissait pas et que, eux, ils connaissaient à peine.

in themselves as simply a mechanism by which to make "small talk," as they accumulate intensify the noise between Monsieur and Anna.

This is similar to the example above of adding ice to hot water: more molecules are brought together than when the two systems were separate, but as they come to a constant temperature, the state of each molecule is less knowable and the system becomes more chaotic or noisy. Adding ice to hot water leads to less and not more information about the system as a whole. Likewise, instead of drawing them closer, the multitude of stories actually render Monsieur and Anna more and more unfamiliar to each other.

Their stories also represent a parasite which disrupts their communication. These stories are another example of a "present absence" in that each person is sending and receiving messages which are present, but the stories are just filling a social void and do not contain any meaning similar to the above example of Monsieur and Kaltz. The anecdotes are also an "absent presence" in that the presence of the anecdotes represents an absence of real "information." As Anna and Monsieur continue their relationship, Monsieur is referred to as "a well of anecdotes" (101) instead of perhaps a "wealth of information."[140] As they are having dinner the only way Monsieur knows how to fill the silence is to tell more tales: "Anna Bruckhardt and Monsieur, always still silent, were looking at the decoration on the walls, examining the menu. Monsieur could have certainly, and it considered it, revive the conversation by launching into a new anecdote" (101).[141]

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[140] un puits d'anecdotes.

[141] Anna Bruckhardt et Monsieur, toujours aussi silencieux, regardaient la décoration des murs, examinaient la carte. Monsieur aurait pu certes, et il l'envisageait, ranimer la conversation en se lançant dans une nouvelle anecdote.

As discussed above, Kaltz's dictations already question the signifier/signified relationship. In the examples given above, each communication in Toussaint's novels can only be viewed in relationship to its situation and not to the story as a whole. Anna and Monsieur try to have a meaningful conversation, but ultimately the topic of the conversation calls into question the notion of what reality is: the mind cannot trust what the eye sees. This scene epitomizes the move from information to noise. Science is typically credited with being able to describe reality. However, in this case, modern science cannot even offer an objective, clear view of the world. The world is an illusion of relationships just as the anecdotes are an illusion for communication.

Other works by Toussaint embody the notion of moving from information to noise. In *La Télévision*, the narrator has won a scholarship to do research on Titien Vecellio for the summer in Berlin. Consequently, he has sworn off watching television. However, his entire summer ends up revolving around the television, often for hours at a time. He realizes from the beginning that the television only produces noise in life and offers no real information:

> Thus our mind, […] more and more indifferent to the images it receives, ends up elsewhere by no longer reacting at all when new signals are offered to it, and, even when it still does react, it allows itself to be once again taken advantage of by the television, because, not only is the television fluid, which leaves no time for reflection to thrive due to its permanent ephemeral advancement, but it is equally water-tight, in that it forbids all prolific exchanges between our mind and its content. (26)[142]

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[142] Ainsi notre esprit […] de plus en plus indifférent aux images qu'il reçoit, il finit d'ailleurs par ne plus réagir du tout lorsque de nouveaux signaux lui sont proposés, et, quand bien même réagirait-il encore, il se laisserait de nouveau abuser par la télévision, car, non seulement la télévision est fluide, qui ne laisse pas le temps à la réflexion de s'épanouir du fait de sa permanente fuite en avant, mais elle est également étanche, en cela qu'elle interdit tout échange de richesse entre notre esprit et ses matières.

The mind cannot handle the wealth of images produced by the television so much so that the signals become indistinguishable. The mind cannot process the information relegating it merely to "indifferent" noise.

Like an entropic system, the television's information continually moves from order – the initial illumination of the screen – to chaos or indifferent differences between images. No intelligent communication happens between the viewer and the television, in which case the television also emulates Serres' parasite, or the "third person" in the conversation between the viewer and the message from the images. As discussed in Chapter One, Serres claims in his essay "Platonic Dialogue:"

> Such communication [dialogue] is a sort of game played by two interlocutors considered as united against the phenomena of interference and confusion, or against individuals with some stake in interrupting communication […] To hold a dialogue is to suppose a third man and seek to exclude him. (*Hermes: Literature* 66-67)

The viewer and the message on the television are Serres' interlocutors and the television serves as the background for this conversation. The background is constantly changing the message through new images which are not related to each other but serve to stand alone in their meaning. A suite of commercials may include advertisements for a new car, for dog food and then for soap. It is the background, the "parasitic" television, which seeks to interfere with communication.

The narrator later acknowledges a viewer's expectation that, when the television is turned off, she expects to be missing information in her daily life. Accordingly only turning it on will offer the viewer a wealth of valuable information. In fact, the contrary is true as the narrator acknowledges that events in our personal life affect us more than the events viewed on the television, which have no connection between our dreams, hopes

and fears. Lastly, the narrator enumerates the plethora of images and types of programs available on the television:

> Everywhere it was the same undifferentiated images, without margins and without headings, without explanations, raw, incomprehensible, noisy […] it was the stereotypical American series it was clips, it was English songs, it was game shows, it was documentaries, it was scenes of film taken out of context, it was excerpts, excerpts of excerpts. (22)[143]

The television is offering exactly the "indifferent differences" or the noise that Taylor talks about above. Furthermore, the information presented is fragmented as represented by the scenes taken out of context and excerpts from excerpts. The information broadcasted more and more loses its original meaning, as discussed above with Kaltz's crystallography dictations, and simply becomes noise.

Noisy Games: From Information to Noise

> Prigogine in his work *From Being to Becoming* asserts:

> For most of the founders of classical science – even Einstein- science was an attempt to go beyond the world of appearances, to reach a timeless world of supreme rationality – the world of Spinoza. But perhaps there is a more subtle form of reality that involves both laws and games, time and eternity. (qtd in *Order out of Chaos* 310)

Consequently, he recognizes that the world is not made up strictly of laws or strictly of chance, but is a combination of both dynamics. Martin J. Osborne and Ariel Rubinstein define a game as "a description of strategic interaction that includes the constraints on the actions that the players *can* take and the players' interests, but does not specify the

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[143] Partout c'était les mêmes images indifférenciées, sans marges et sans en-têtes, sans explication, brutes, incompréhensibles, bruyantes […] c'était des séries américaines stéréotypées, c'était des clips, c'était des chansons en anglais, c'était des jeux télévisés, c'était des documentaires, c'était des scènes de film sorties de leur contexte, des extraits, des extraits des extraits.

actions that the players *do* take" (2). As such, games contain overarching rules of engagement, but chance inevitably influences the outcome. Prigogine in his work on chaos theory is not advocating that the world is completely chaotic since some systems do obey Newton's laws. Rather, Prigogine acknowledges that determination and chance are equally inherent. Toussaint's narrators are frequently playing games, whether that is standard board games or sports, watching games on television as a spectator, or creating their own games. This investigation claims that games in Toussaint's work serve as both entropic systems and dissipative structures. The games force an inevitable evolution from information to noise but the games also tend to slow time, offering pockets of order in time's continual march as discussed above in "Noisy Games: From Noise to Information."

In *La Salle de bain*, the narrator's mother encourages him to leave the bathroom and to distract himself. He responds that "the need for entertainment seemed suspicious to me […] I feared nothing less than diversions" (13).[144] This statement recalls Pascal's *divertissement* and in fact, while in Venice, the protagonist reads from an English version of Pascal's *Pensées* "But when I thought more deeply, and after I had found the cause for all our distress, I wanted to discover its reason, I found out there was a valid one, which consists in the natural distress of our weak and mortal condition, and so miserable, that nothing can console us, when we think it over" (87). These diversions can be considered as dissipative structures as rules are repeated and offer order in the midst of life's chaos. However, chance is ever present in games eliminating the possibility of complete order.

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[144] Je répondis que le besoin de divertissement me paraissait suspect […] je ne craignais rien moins que les diversions.

Games are certainly one form of entertainment. Remaining in the bathroom, the narrator can control the chaos in his life. Leaving the bathroom inevitably will lead to the intrusion of chaos and games represent a possibility for chaos. While games do have rules, they are also unpredictable at best. In his book *Emergence: From Chaos to Order*, John Henry Holland affirms similarities between dynamic systems and games. Specifically, he recognizes that

> A small number or rules or laws can generate systems of surprising complexity. Moreover, this complexity is not just the complexity of random patterns. Recognizable features exist […] Though the laws are invariant, the things they govern change. The varying patterns of the pieces of a board game, or the trajectories of baseballs, planets, galaxies under Newton's laws, show the way. The rules or laws generate the complexity, and the ever-changing flux of patterns that follows leads to perpetual novelty and emergence. (3-4)

While Holland insists that the laws are invariant, he admits that even invariant rules can generate random results. Specific to this analysis, board games such as Monopoly, Scrabble, and chess offer a structured form (the board, game pieces, the rules) but a chance draw of a card, letters, the roll of the die, or an opponent's move will all influence the game's progression. The only certainty in board games is the rules. However, these rules do not determine how the game will advance. The rules can only set up certain conditions which lead to undetermined "moves."

For the narrator in *La Salle de bain*, the rules of the game do not offer him structure, but a point of departure toward chaos. In *La Salle de bain*, the narrator plays the board game Monopoly with Edmondsson and her friends. Monopoly is a game that simulates real-world capitalistic experiences of material acquisition and domination: building empires and accumulating wealth (44). As the players accumulate or lose their

acquisitions, the forces in the game are constantly in flux. In fact, disorder continually grows. Choices, which become increasingly more entangled, must be made about what to sell, what to keep, and what to buy. Instead of moving towards order, each player continually moves towards incertitude and chaos. In addition, one game of Monopoly will never resemble another game, or only quite rarely. Between the role of the dice, the cards, and the number of combination these produce, an exact replica of a game is nearly impossible, imitating the structure of a dynamic system's initial conditions.

Toussaint's protagonist Monsieur plays Scrabble with his fiancée's parents. The rules or "information" of Scrabble dictate the conditions for allowed words as well as how the words can be connected. Thus, the words are limited to standard language and they offer an overarching structure. This rule is simultaneously limiting and liberating. The combination of letters drawn and those on the board can only construct known words. On the other hand, the chance combination of letters drawn can allow a player to exploit letters already on the board such that the letters on the board and their placement in essence become a part of the player's "hand." Therefore, the word combinations are unpredictable. The word created by the player "A" on the board is determined and will not change. However its placement on the board in relation to other occupied and empty spaces sets up new initial conditions for the subsequent player "B". The initial conditions before "A" deposited her word on the board change after her play, setting up new conditions for "B." Accordingly, as more words (ordered structures) are played, the possibilities for new word combinations fluctuate.

As with Monopoly, decisions in Scrabble become forcedly more complex as the "initial conditions" are constantly changing thus guaranteeing each Scrabble game will be

different. Noise in Scrabble is defined as the random letters drawn with each turn. While these letters or noise can be eventually turned into information (words on the board) new noise is constantly being reintroduced with each draw. Thus, order (words spelled on the board) is only temporary and is always tending toward noise with each new player's draw.

Furthermore, as stated above, communication is superficial in *Monsieur*. While Monsieur and his fiancée's parents are playing a game involving words, the primary tool for verbal communication between humans, in actuality Scrabble serves as a metaphor for the "word games" occurring between the characters in the novel. No real communication occurs in Scrabble. Words are joined together not to communicate but to garner points. Monsieur only "interacts" with the other players by adding on to their words which emulates Monsieur's anecdotes he tells Anna. As discussed above, Monsieur and Anna only exchange anecdotes, similar to two game players exchanging turns. In actuality, these anecdotes are only word games as well. With her, Monsieur is only trying to "win points" so she will see him again not so that real communication will take place.

Chess is a board game Monsieur plays with his six year-old twin nieces while babysitting them. As with Monopoly and Scrabble, initial conditions strongly influence the outcome of chess. In fact, as Holland notes about chess

> Chess and Go have enough emergent properties that they continue to intrigue us and offer new discoveries after centuries of study. And it is not just the sheer number of possibilities. There are lines of play and regularities that continue to emerge after years of study, enough so that a master of this century would handily beat a master of the previous century. (23)

Although the rules of Chess have not changed, new iterations and moves continue to be discovered. Monsieur wants to teach his nieces chess so as to "arouse their interest" as he believes young children are easily engaged (70). At first the twins seem interested and appear to understand what Monsieur is explaining to them. However, two indications reveal that, in his attempt to teach the girls Chess and bring some order to the situation, his estimation of their involvement may be misjudged. For one, he finds the girls picking their noses while he is explaining the game which indicate boredom to Monsieur. Secondly, he initially likes that the girls say "adjust" when they want to straighten a piece that has been accidentally moved on its square, essentially restoring order to chaos. However, he soon frustratingly suspects that they are moving all the pieces because they like to say the expression "adjust" instead of really being interested in playing and understanding the game.

Consequently, a progression from order to chaos is apparent on two levels. First, Monsieur is trying to order his time with his nieces by teaching them to play Chess, which insinuates an orderly progression of reviewing rules of the game. His nieces appear interested and engaged, suggesting they are participating in the organization of events ordered by Monsieur. Yet, the action of the twins picking their noses indicates they are superficially participating and are becoming less and less engaged and more distracted by Monsieur's explanations. On the game level, the girls seem to be adhering to the rules of the game by bringing order to the placement of the pieces that they have disturbed. Nonetheless, instead of bringing order to the chaos of the pieces, they are actually increasing chaos by continually "adjusting" the pieces such that the true "game" of Chess is lost into the noise of adjusting. Unlike Holland, who proposes that over time, more

regularities are noticed in Chess, Toussaint underscores the aleatory aspect of games in support of his narratives which privilege questioning time's passage and the inevitable chaos that accompanies this flow.

Noisy explorations in autobiography II

Annie Ernaux, in her work *L'Écriture comme un couteau*, affirms that beginning with *La Place*, all her subsequent works are autobiographical in the sense that "all fictionalization of the events is put aside and that, except an error in memory, these [stories] are truthful in all their details. In short, the "I" of the text and the name inscribed on the cover of the book refer to the same person" (21).[145] However, for Ernaux, the term "autobiography" is inadequate: while distinguishing between fiction and non-fiction, she asserts that the term "autobiography" yields no indication as to the goal and structure of the text (21). Consequently, Ernaux modifies the expression such that her works since *La Place* "are first and foremost 'explorations', where it has to do less with saying 'me' or to 'recover' it than to lose it in a more vast reality, a culture, a condition, a pain, etc" (22).[146] Her works *Passion simple*, *Se perdre*, and *L'Usage de la photo* demonstrate that, in the quest to lose the "me" in a vast reality, random forms and content emerge.

Noisy forms

The title *Passion simple* (*Simple Passion*) immediately connotes emotions that are easily understood. Thus, the reader anticipates a straightforward recounting of an easily

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[145] toute fonctionnalisation des événements est écartée et que, au erreur de mémoire ceux-ci sont véridiques dans tous leurs détails. Enfin, le 'je' du texte et le nom inscrit sur la couverture du livre renvoient à la même personne.

[146] sont avant tout des "explorations", où il s'agit moins de dire le "moi" ou de le "retrouver" que de le perdre dans une réalité plus vaste, une culture, une condition, une douleur, etc.

understood passion. Indeed the work describes Ernaux's passion for "A." so the subject of the work is clear. However, structurally, the work is composed of paragraphs of varying length, separated by small to large white spaces. There are no chapters or dates to indicate the temporal progression of the affair. Furthermore, the epigraph by Roland Barthes from his work *Fragments d'un discours amoureux*[147] suggests the novel is far from simple: "*Nous deux* – the magazine – is more obscene than Sade."[148] The Marquis de Sade was a man with perverted, complicated, sexual passions. *Nous deux* is a French women's magazine which contains articles discussing love and feelings among other topics.

Having Barthes's quote as the epigraph suggests that Ernaux's text will also be fragmented and that she will communicate in her text an obscene sentimentality voiced from her position as a woman. Her text will border on perversion: "Nous deux" also alludes to the love affair between the narrator and her lover "A." which will be more obscene than Sade. Barthes opening in his work *Fragments*, captures the sense of Ernaux's text:

> Everything departs from this principle: one need not reduce the lover to a simple symptomal subject, but rather make heard what there is of the obsolete in his voice, that is, the inflexible. From there, the choice of a "dramatic" method, which rejects examples and rests on the sole action of a first language (not a meta-language).We have substituted then for the description of an amorous discourse its simulation, and we gave to this discourse its person, fundamental, which is the I, the way to produce an enunciation, not an analysis. It's a portrait, if you will, which is suggested;

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[147] McIlvanney astutely contextualizes Barthes's text for *Passion Simple*: "This epigraph is taken from Barthes's dictionary of amorous states and associated terms, *Fragments d'un discours amoureux* (Paris: Editions du Seuil, 1977), many of which find ratification in the thoughts and conduct of the narrator in *Passion simple*. This particular remark comes under the entry "L'obscène de l'amour", pg. 211, in which Barthes remarks that it is sentimentality, rather than sexuality, which is nowadays considered obscene." (196 n142).

[148] *Nous deux* - le magazine – est plus obscène que Sade.

but this portrait is not psychological; it's structural: it gives to reading a place of speaking: the place of someone who speaks in himself, lovingly, opposite the other (loved object) which does not speak. (7)[149]

Like Barthes's suggestions, a lover is not a simple object and neither will Ernaux's *Passion simple* be either. Consequently, Ernaux, instead of writing a text filled with dialogue between her and "A." enunciates her text from the "I" position. As such, she will not analyze the relationship, the content of which will be discussed below, but will present it as it happened.

The format of her text serves as the trope for her relationship with "A.": the fractured, sporadic entries simulate the actual physical relationship. Her text is enunciating the alternation between presence and absence of "A." This minimalist approach to labeling passion as simple in the title serves paradoxically to underscore its complexity and the Barthesian belief that a lover cannot be easily reduced to a simple status. Ultimately, the title suggests an ordered work. Nonetheless, upon further examination of the epigraph and structure of the text, a movement from order to disorder will occur in comprehension. As a result, the information the reader thinks she receives through the title becomes misleading such that not only is the subject of the work in question, but the fragmented structure of the paragraphs suggests a disjointed and even incomprehensible chronicle of passion simultaneously for the narrator and the reader.

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[149] Tout est parti de ce principe : qu'il ne fallait pas réduire l'amoureux à un simple sujet symptômal, mais plutôt faire entendre ce qu'il y a dans sa voix d'inactuel, c'est-à-dire d'intraitable. De là le choix d'une méthode "dramatique", qui renonce aux exemples et repose sur la seule action d'un langage premier (pas de métalangage). On a donc substitué à la description du discours amoureux sa simulation, et l'on a rendu à ce discours sa personne, fondamentale, qui est le je, de façon à mettre en scène une énonciation, non une analyse. C'est un portrait, si l'on veut, qui est proposé; mais ce portrait n'est pas psychologique; il est structural : il donne à lire une place de parole : la place de quelqu'un qui parle en lui-même, amoureusement, face à l'autre (l'objet aimé), qui ne parle pas.

Ernaux's work *Se perdre*, is, she claims, the private diary upon which she created *Passion simple*. The title *Se perdre* translates "to get lost", "to lose one's way" or "to go astray" immediately implying chaos and uncertainty will pervade the character but also the structural level of the text. Contrary to *Passion simple*, the reader is sure of the work's intention thus ordering the reader's expectation for the work. Furthermore, unlike in *Passion simple*, Ernaux organizes her journal entries sequentially by month, date and day. These markings in essence regulate the size of the white spaces between entries such that they are more or less the same representing a reduction in the sense of chaos the narrator experiences as suggested by the title. While the dates appear to provide order to the text, in fact the narrator consistently remains lost. The epigraph for the work is: "Voglio vivere una favola (Je veux vivre une histoire)"[150] with a note "Anonymous inscription on the steps of the church Santa Croce in Florence."[151] In French "*une histoire*" can mean a story, a fable or a fiction. As such, what the narrator desires is vague equally for her and for the reader offering multiple possible interpretations of what she and the reader experience.

Women's autobiography has long been labeled as an outlet for personal expression to give clarity to emotions. In this instance, the narrator's ambiguity of what she desires directly challenges this one-dimensional assumption about what personal expression seeks. In Ernaux's case, she favors expression over clarity. The inscription's anonymity underscores the anonymity Ernaux gives to "A." which coincidentally begins the word "anonymous." The church "Santa Croce" translates the "Sacred Cross." Unlike the Barthesian epigraph in *Passion simple* with references to Sade, this epigraph contains

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[150] I want to live a story
[151] Inscription anonyme sur les marches de l'église Santa Croce, à Florence.

religious overtones, creating the image of an anonymous follower of the church who has perhaps "gone astray" and wants now to "live a story" or live a life filled with redemptive experiences. What the reader finds however, is a text more haunting that *Passion simple*. Ernaux describes *Se perdre* in its preface as "Something crude and dark, without salvation, something of oblations. I thought that this must also be brought to light" (15).[152] *Se perdre*, antithetical to the epigraph, is not sacred and pure. As in *Passion Simple*, the private diary *Se perdre* offers a controlled form which unexpectedly disguises or reorganizes the underlying disorder.

The third tutor text of this analysis, *L'Usage de la photo*, (*Using Photos*) is a work that is co-written by Ernaux and Marc Marie. Immediately the reader understands that the writers will be using photos in some manner. The title, unlike the previously discussed works by Ernaux, contains no element of emotion. Instead, the title proposes a mechanical procedure using a physical object. The format of the text is consistent: a photo is taken of their clothes where they were left before making love. Ernaux, in the preface, describes the "rules of the game" offering organization to the process:

> A rule was imposed spontaneously between us: do not touch the position of the clothes. To change the place of a pump or a T-shirt would have constituted a mistake – as impossible, for me, as modifying the order of words in my private diary – a way to attenuate the reality of our amorous act. (13)[153]

This rule allows the reader to view the photos and have confidence that they have not been altered, representing the accurate "reality" of the clothes' placement. Once the

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[152] Quelque chose de cru et de noir, sans salut, quelque chose de l'*oblation*. J'ai pensé que cela aussi devait être porté au jour.

[153] Une règle s'est imposée entre nous spontanément: ne pas toucher à la disposition des vêtements. Changer de place un escarpin ou un tee-shirt aurait constitué une faute – aussi impossible, pour moi, que modifier l'ordre des mots dans mon journal intime-, une façon d'atténuer a la réalité de notre acte amoureux.

photos were developed, more rules dictated that the person picking up the photos from the developer could not look at the pictures, and that once together, Ernaux and Marie would sit on the couch with a glass of wine, music in the background, and look at the pictures together (14). This regulated act of looking at the photos under the same situation provides a framework for creating the book's structure: the pictures chosen were submitted to the same ritual each time implying an organized decision process was responsible for the pictures now organized in the book. Once fourteen pictures had been chosen, Ernaux and Marie independently wrote a description of the picture. Therefore, for each picture there are two commentaries. Moreover, each picture has its own chapter, with the location and date of the photo on the cover page, followed by the picture, and then the commentaries which also had their own title. The photos are placed sequentially in time from March 2003 to January 2004. Other than their consistent presentation, the photos' only commonality is the subject: clothes after lovemaking. From this point, the photos do not seem to possess an explicit connection between them. While the photos represent forward movement of time, each photo could and does stand alone, irregardless of the photo prior or following. Isolated and discontinuous from each other, instead of "telling a story" the photos serve as, literally, "snapshots" of reality, leaving the reader to question the "use" of the photos and their relationship to each other in describing the love affair between Ernaux and Marie.

The work's epigraph from Georges Bataille's *L'Érotisme* (*Eroticism*) implies the essential place eroticism will hold in Ernaux's discontinuous text: "Eroticism is assenting

to life up to the point death."[154] In his work, Bataille postulates that people use eroticism

as a way to bring continuity to a discontinuous experience. He claims:

> On the most fundamental level there are transitions from continuous to
> discontinuous or from discontinuous to continuous. We are discontinuous
> beings, individuals who perish in isolation in the midst of an
> incomprehensible adventure, but we yearn for our lost continuity. We find
> the state of affairs that binds us to our random and ephemeral individuality
> hard to bear. Along with our tormenting desire that this evanescent thing
> should last, there stands our obsession with a primal continuity linking us
> with everything that is. This nostalgia […] is responsible for three forms
> of eroticism in man […] physical, emotional, and religious. My aim is to
> show that with all of them the concern is to substitute for the individual
> isolated discontinuity a feeling of profound continuity. (15)

Ernaux and Marie wrote this text when Ernaux was undergoing treatment for cancer. On

one level, her eroticism in this work is a way to affirm life knowing, for her, death may

be imminent. Secondly, considering Bataille's characterization of eroticism, Ernaux and

Marie's photos are used to try to capture the eroticism in their lives and to bring

continuity to their existence. However, Ernaux admits in *L'Usage:*

> Now it seems to me that I always desired to conserve the image of the
> landscape devastated according to love. I wonder why the idea to
> photograph it never came to me sooner. Nor why I never suggested this
> idea to any man. Maybe I would think that there was something there
> vaguely shameful or base. In a sense, it was less obscene for me – or more
> admissible actually – than to photograph M.'s sex. (32)[155]

Not only are the pictures a way to capture the erotic nature of their relationship, it is an

effort to bring to light what Ernaux considers more obscene than photographing Marie's

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[154] L'érotisme est l'approbation de la vie jusque dans la mort.

[155] Maintenant, il me semble que j'ai toujours désiré conserver l'image du paysage dévasté d'après l'amour. Je me demande pourquoi l'idée de le photographier ne m'est pas venue plus tôt. Ni pourquoi je n'ai jamais proposé cela à aucun homme. Peut-être considérais-je qu'il y avait là quelque chose de vaguement honteux, ou d'indigne. En un sens, il était moins obscène pour moi – ou plus admissible actuellement – de photographier le sexe de M.

penis: the vestiges of clothes thrown off in the heat of passion that represent the passion

of the moment. Clothes are often used to seduce a lover so in a way, these tools of

seduction hold more eroticism than the naked human body that is more or less consistent

in men and women, excepting shapes and sizes.

Structurally, the variety of photos and lack of connection between them, however,

reinforce the discontinuity that Bataille describes and against which humans are

struggling. Despite Ernaux and Marie's effort to bind the photos together in a defined,

continuous space of a book, the layout of the book attests to its failure in securing a

permanent relationship. Instead, the photos reflect nostalgia for this connection between

events, places, and individuals. Ernaux characterizes this longing and excitement they felt

to seize the spontaneous connection together between them as fractured and

unpredictable:

> Very quickly, a curiosity occurred to us, an excitement even, to discover
> together and to photograph the ever new and unexpected composition, of
> which the elements, sweaters, shoes, were organized according to
> unknown laws, from movements and gestures that we had forgotten, of
> which we were unaware. (12-13)[156]

This acknowledgment to discover the eroticism together affirms Bataille's assertion that

people long for continuity, for connection with others, and it is through eroticism that

people seek to establish this relationship. Symbolically, Ernaux and Marie seek to secure

this connection through using photos.

Other works by Ernaux structurally model a transition from defined to disordered

information. Works such as *Journal du dehors* (*Exteriors*) and *La Vie extérieure* (*The*

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[156] Très vite, nous est venue une curiosité, de l'excitation même, à découvrir ensemble et à photographier la composition toujours nouvelle, imprévisible, dont les éléments, pulls, bas, chaussures, s'étaient organisés selon des lois inconnues, des mouvements et des gestes qu'on avait oubliés, dont on n'avait pas eu conscience.

Life Outside) are two "ex"-timate diaries where Ernaux presents verbal "snapshots" or "photographic writing" (9) (*écriture photographique*), as she states in *Journal,* of encounters she has in her daily life. The paragraphs in *Journa*l imitate the format of those in *Passion simple* while those in *La Vie* mimic the framework of those in *Se perdre*. Thus, in the former, the text requires the reader to piece together the fragmented information that the text offers. In the latter, while the markings of day, date and year offer a temporal order to the text, some years contain only ten pages of entries, while others contain up to forty pages. As a result, the format establishes an awareness of the irregularity of time, as well as perhaps prejudicing the reader to believe that certain years which are allocated more pages are more important than other years with less pages.

The title *Journal du dehors* plays on the word "journal" which in French can mean either diary or newspaper. Indeed, as will be discussed below in the section on "Noisy Content" the reader can judge Ernaux's entries as either being "*journalières*" (diaristic) or "*journalistiques*" (journalistic) Consequently, the title introduces ambivalence to the reader's approach to the text. The title of *La Vie* offers no direct correlation with the content of the work and could suggest either a focus on the author's public as opposed to private life, of life "outside" any chosen reference point in life (life outside the home, life outside of work, life outside of family), or about the lives of others.

La Vie is also the only book starting with *La Place* and the beginning of her "explorations" period[157] that does not have an epigraph. On the other hand, as a subtitle to the work Ernaux has chosen "1993 – 1999." Thus, this peri-textual marker offers the reader temporal structure as to the duration covered in the work while still offering no

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[157] *Ce qu'ils disent ou rien* and *La femme gelée* also do not have epigraphs but Ernaux categorizes these works as fictional works from her "first period" of writing and are outside the framework of this current analysis on her "exploration" period.

insight into the work. The epigraph on *Journal* by Rousseau accentuates the location of self to be both within and without an individual: "Our true self is not entirely in us."[158] Accordingly, assuming the "journal" in the title represents "diary", Rousseau's epigraph challenges traditional notions of locating oneself entirely in and through the diary as a result of introspection. To conclude, the framework of *Journal* and *La Vie* reveals a progression from organization to disarray in the reader's approach to the texts.

In her work *L'Événement*, (*The Event*) Ernaux describes the abortion she had at twenty-three years old. The title is not specific, but rather alludes to the experience such that reader knows the text will center on a certain episode. Ernaux banally identifies the event without adjectives or emotion. Furthermore, an 'event' is an occurrence that happens in one moment in time. As will be discussed below, the "event" has influenced Ernaux's life from the time she found out she was pregnant to the present. Characteristic of her style, the book contains no dates or chapters, but only paragraphs of varying size separated by white spaces also of varying dimensions. By not naming or purposefully delimiting her chapters, the reader is left to discern turning points and emotional progression of the incident. This lack of designation also implies the undetermined nature of "the event" although the word "event" usually implies a delimited time of action.

This work contains two epigraphs. The first is by Michel Leiris: "My double wish: that the event becomes written. And that writing is the event."[159] For Ernaux, the 'event', or the abortion, will become written in her book as the title suggests. The epigraph could suggest that writing is the event worthy of her attention. Finally, she suggests that the act of writing will emulate the abortion: writing will in fact cut short the

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[158] Notre vrai moi n'est pas tout entier en nous.
[159] Mon double vœu: que l'événement devienne écrit. Et que l'écrit soit événement.

life she is creating by telling the event. Ernaux affirms in *L'Événement* that writing about this experience will emulate her abortion but paradoxically also represents seeing the event to the end (as opposed to aborting the process): "With this story, it's time which put it in motion and which leads me in spite of myself. I know now that I am determined to go all the way to the end, no matter what happens, in the same that I was, at twenty-three, when I tore up the certificate of pregnancy" (26).[160] Structurally she indeed does see it through to the end.

The second epigraph by Yuko Tsushima enunciates in terms of memory what Ernaux affirms above: "Who knows if memory does not consist of seeing things through to the end."[161] To establish her memory of the abortion, Ernaux does have to recount all she remembers of the entire event. Tsushima's quote suggests that for memory to be complete, all the details must be remembered. Memory is not fractured, but continuous. Nonetheless, Ernaux's fragmented paragraphs subvert the sensation of continual memory while Tsushima's epigraph proposes continuity, leaving the reader to question what exactly memory entails.

As a final point, Ernaux writes approximately half of her texts in this work in parentheses. This structure suggests an interruption in the retelling of the "event", an insertion of details which do not merit equal recognition on the level of the story, and a need to clarify details in order for the events of the story to appear valid. These parentheses also reveal perhaps Ernaux's attitude toward the abortion as a whole: a

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[160] Avec ce récit, c'est du temps qui s'est mis en marche et qui m'entraîne malgré moi. Je sais maintenant que je suis décidée à aller jusqu'au bout, quoi qu'il arrive, de la même façon que je l'étais, à vingt-trois ans, quand j'ai déchiré le certificat de grossesse.
[161]Qui sait si la mémoire ne consiste pas à regarder les choses jusqu'au bout.

parenthetical event in her life situated between more important events. As such, she is uncertain as to how to remember, address, and present this event. Structurally however, they indicate to the reader a sense of discontinuity and an indication that Ernaux remains undecided as to how to join the experiences connected with this event in a coherent way.

Noisy content

As discussed above, the structure of *Passion simple* asserts a chronicle of passion in disarray. The content of the text reinforces this conclusion. Ernaux opens the text with: "Beginning in the month of September last year, I did nothing other than to wait for a man: that he would call me and that he would come to my house" (13).[162] Once more, Ernaux's lines suggest that this story will not be complicated like her passion. Yet, almost immediately the narrator's simple act of waiting turns into the physical act of chaotically recording details on paper after her lover's departure "noting in a disorderly fashion the details of this encounter" (18).[163] In these details, she strives to conserve this physical chaos of their encounters:

> Soon after his departure, an immense fatigue paralyzed me. I didn't clean up right away. I contemplated the glasses, the plates with the leftovers, the full ashtray, clothes, pieces of lingerie, scattered in the hallway, the bedroom, the sheets hanging on the carpet. I would have liked to conserve as such this disorder where each object signified a gesture, a moment, which composed a painting of which the force and the pain would never be attained for me by anything else in a museum. Naturally, I didn't bathe before the next day so as to keep his sperm. (20)[164]

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[162] A partir du mois de septembre l'année dernière, je n'ai plus rien fait d'autre qu'attendre un homme : qu'il me téléphone et qu'il vienne chez moi.

[163] notant en désordre des détails de cette rencontre

[164] Aussitôt après son départ, une immense fatigue me pétrifiait. Je ne rangeais pas tout de suite. Je contemplais les verres, les assiettes avec des restes, le cendrier plein, les vêtements, les pièces de lingerie, éparpillés dans le couloir, la chambre, les draps pendant sur la moquette. J'aurais voulu conserver tel quel ce désordre où tout objet signifiait un geste, un moment, qui composait un tableau dont la force et la

Her lover's presence introduces disorder to her life mentally and physically. This same desire to capture the disorder will be realized through photos in *L'Usage*. She even realizes the absurdity of trying to order the experience. Just prior to her lover's arrival, Ernaux would often write on a piece of paper the date and thoughts she was having such as that he was going to come or fears that he would not come or that his desire for her had waned (18). After her lover's visit, she would ridiculously look at her "before" and "after" notes and laugh at the absurdity of words trying to capture all that happened "between" the two parts: "between the two, there was language, gestures, which rendered all the rest trivial, including the writing by which I tried to capture it. A space of time delimited by two car noises" (19).[165] What initially appeared to be an orderly process of waiting results not only in discontinuous writing represented by white spaces between the entries on the page but also the discontinuity of her memory of the events in her quest to compose the before, during, and after of her lover's visit.

One of the rituals of her simple passion was waiting for a phone call: a simple gesture, well-defined and straightforward, that requires little effort on her part. In addition to waiting, the character of the relationship required that she not communicate with him in any way, neither by telephone (oral) or letters (written). If she did write him letters, she would give them to him when he came to see her and she assumes they were most likely destroyed on his way home. Communication is only one way between them with "A." being the initiator. However, she states: "These constraints, even, were a

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douleur ne seront jamais atteintes pour moi par aucun autre dans un musée. Naturellement, je ne me lavais pas avant le lendemain pour garder son sperme.

[165] Entre les deux, il y avait eu des paroles, des gestes, qui rendaient tout le reste dérisoire, y compris l'écriture par laquelle j'essayais de les fixer. Un espace de temps délimité par deux bruits de voiture.

source of waiting and desire" (38).[166] Her waiting has morphed into more than "just waiting" and has evolved into an act of desire. What began as an inactive, passive state has become active. She asserts later that "In the spring, my wait became continuous" (43)[167] implying that somewhere along the way, her waiting used to be discontinuous in her mind which is opposite of exactly what she claimed to do: she claimed that all she did was waiting. This constant state of actively waiting for his call becomes painful: "When he used to call so that we could see each other, his call, a hundred times wished for changed nothing, I remained in the same painful tension as before […] All was lack without end" (45).[168] She recognizes that she is living a continuous cycle of expectation and claims that she wanted to break up with "A." so as to "no longer be at the mercy of a call, to no longer suffer" (45).[169] However, each time she reaches this conclusion, a worse reality surfaces: she would have "a suite of days without nothing to wait for" (45).[170]

If her waiting for a phone call is continual, and her continual tension and suffering is the major focus of the work, one aspect that is "an absent presence" is the actual phone call. The phone call fails to make a connection between pre-phone call to post phone call where she admits to submitting to another form of waiting: waiting for him to arrive after the call. The phone call does not add structure or completeness to her waiting, but only causes more confusion and disarray. She claims after one phone call: "[I was] filled with a feverish energy for tasks that I wasn't able to order: take a shower, get out some

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[166] Ces contraintes, même, étaient source d'attente et de désir.

[167] Au printemps, mon attente est devenue continuelle.

[168] Lorsqu'il téléphonait pour qu'on se voie, son appel cent fois espéré ne changeait rien, je restais dans la même tension douloureuse qu'avant […] Tout était manque sans fin.

[169] pour ne plus être à la merci d'un appel, ne plus souffrir.

[170] une suite de jours sans rien attendre.

glasses, polish my nails, pass the floor cloth. I didn't know who I expected anymore" (17).[171] Consequently, her life is thrown into continual disorder as opposed to the order which is expected with her solitary goal: to wait. The reader thus encounters a structural paradox: the narrator's continual state of waiting is juxtaposed to the author's discontinuous structure of the narrative. No real dialogue occurs between the narrator and A. Accordingly, the physically fragmented structure of the text and the incomplete content of each fragment serves to represent the noise of failed communication between the narrator and "A."

Ernaux claims that *Se perdre* is only one of two of her diaries that she has published (*Je ne suis pas sortie de ma nuit* being the other). If *Passion simple* centered on waiting for a phone call, *Se perdre* delves the manic obsession in which the narrator gets consumed regarding her relationship with "S." She repeatedly communicates the confusion, purposelessness and mental and physical illness she experiences because of her desire for "S.":

> Nothing. Ophthalmic migraine in the sun. Then, I feel like a madwoman, depressive in the worst degree, and I am afraid (168)
> Disgust with all occupations (garden, etc.) continual anguish (169)
> I live in an anesthetized pain (187)
> that he left for the USSR without letting me know […] I am like a madwoman at this idea, mad with pain (239)
> At the moment of writing, the certitude that he left submerges me like a madness and my waiting in Florence, to see him again, becomes hideous" (263)
> I don't understand this madness, this dream of a man, no more than I don't understand the force of my attachment to 'S'. Except: to approach a return to nothingness, to aspire to the primordial fusion with the cosmos (myths!) (264),

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[171] remplie d'une énergie fébrile pour des taches que je ne parvenais pas a ordonner: prendre une douche, sortir des verres, vernir mes ongles, passer la serpillière. Je ne savais plus qui j'attendais.

> Maybe I would never have felt this passion for so long if it had not been continual pain and incertitude. (243)[172]

Ernaux, like the reader, becomes lost in the repetitive reflections in her diary. The reader is so bombarded with similar entries that the importance accorded to each expression of pain becomes indistinguishable, and thus minimized. Consequently, these emotional expressions can be interpreted as noise which hinders the message.

She affirms that it is in fact her desire that causes her to lose her way: "I cannot say that men disorient me, it is only my desire which leads me astray, the submission to (or the quest of) something terrible, that I do not understand, born in the union with a body, quickly gone" (221).[173] If the epigraph in *Passion simple* referenced Sade with little details of her sexual encounters in *Passion simple*, it is in *Se perdre* that Ernaux reveals the extent of her sexual experiences with "S." including sodomy: "Tonight, first time for sodomy" (31-32) and again later "Continual invention of positions, gestures. I pour champagne on his sex, fairly certain that no one had ever done these things to him. Sodomy" (282-83).[174] Her descriptions are however neutral and without emotion compared to the above description of her manic feelings for "S." These entries also are in reference to his experiences, and not to hers. As such, instead of offering emotional

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[172] Rien. Migraine ophtalmique au soleil. Ensuite, je suis comme folle, dépressive au dernier degré, et j'ai peur" (168), "Dégoût de toutes les occupations (jardin, etc.) angoisse continuelle" (169), "Je vis dans une douleur anesthésiée" (187), "qu'il soit reparti sans me prévenir en URSS […] je suis comme folle à cette idée, folle de douleur." (239), "Au moment ou j'écris, la certitude qu'il est parti me submerge comme une folie et mon attente à Florence, de le revoir, devient hideuse.' (263), "je ne comprends pas cette folie, ce rêve d'un homme, alors pas plus que je ne comprends pas la force de mon attachement à S. Sauf : m'approcher du retour au néant, aspirer à la fusion primordiale avec le cosmos (mythes !)." (264), "Peut-être n'aurais-je pas éprouvé longtemps cette passion si elle n'avait été douleur et incertitude continuellement." (243).

[173] Je ne peux pas dire que *les hommes me perdent*, ce n'est que mon désir qui me perd, la soumission à (ou la quête de) quelque chose de terrible, que je ne comprends pas, né dans l'union avec un corps, et aussitôt disparu.

[174] Ce soir, première fois pour la sodomie. (31-32); L'invention continuelle, des positions, des gestes. Je renverse du champagne sur son sexe, à peu près sûre qu'on ne lui a jamais fait de telle choses. Sodomie. (282-83)

information about the encounters, these descriptions serve as noisy distracters from how her desire leads her astray.

She continues to focus on his experience when she writes about acts of fellatio : "In flashes, I see again the moments of love (he asks me to turn - he is on his back and moans during oral sex- he tells me 'you make incredible love' – and he guides me slowly toward his stomach, finally taking the initiative)" (35-36).[175] She puts herself in the position of the more aggressive, more experienced sexual partner and "S." as the more inexperienced. She seems to be the one who is controlling the extent of their sexual experiences, while her desires for "S." are clearly out of her control as discussed above. She even portrays him as being a shy spectator to his own sexual encounters instead of a participant: "He also always closes his eyes. Except when I caress his sex with my mouth, he sits up to see, if I lift my eyes, he turns his away immediately. Is this shame, repression?"(92-93).[176]

She encounters "S." as a spectator who refuses to "see" what is happening and thus refuses to engage. The narrator, on the other hand, engages all her senses in her desire. First, she is a *voyeur*. The narrator chooses to engage visually whereas "S." seems to be rejecting all that is erotic about passion in closing his eyes and letting the narrator be the initiator. Furthermore, the narrator connects herself to and her desire for "S." and men in general physically through sperm, and not emotions when she writes:

> All my life will have been an effort to free myself from the desire of a
> man, that is, from mine. In '63, I repeated to myself the biblical lines:
> "And I will make peace run over her like a river", not knowing even that

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[175] Par éclairs, je revois les moments de l'amour (il me demande de me tourner – il est sur le dos et gémit sous la fellation – il me dit 'tu fais l'amour incroyable' - et il me guide doucement vers son ventre, prenant enfin des initiatives.)

[176] Il ferme aussi toujours les yeux. Sauf quand je lui caresse le sexe avec ma bouche, il se soulève pour voir, si je lève les yeux, il détourne les siens aussitôt. Est-ce cela la honte, le refoulement?

these lines would vocalize my desire, the sperm running over me like a river. (93-93)[177]

Extending this conclusion, she affirms the smell associated with what she finds erotic:

Odor of certain things recall that – formerly detested – turned upside down now, of sperm. May 12th, "I can put my sperm on your stomach? […] I measure the force of my attachment to my taste or disgust of sperm. As such, violent disgust with "P." beginning in '87. And the first time with "S.", my desire to spit it out in the toilet, in Leningrad. (187-188)[178]

Her gaze, smells and touch all substantiate her desire. In this example, the narrator moves eroticism beyond simply "looking" but extends it to touching and smelling. She is owning her passion by extending it beyond voyeurism.

Furthermore, this obscene association with sperm not only underscores the importance of the epigraph in *Passion simple* but also highlights Ernaux's assertion that *Se perdre* is something crude, obscene and filled with bleakness. She frequently characterizes her days as such: "Black mornings" (79), "Each day is black" (83), "This month of June will have been the darkest in a while" (205), and "More and more, the dark impression that he didn't call me before his departure" (319).[179] Ernaux's text reflects the darkness of both her physical and mental relationship with "S.": as a sensing *voyeur*, all that is erotic is one-sided, that is, "S." is a passive participant who generates noisy effects that fuels her desire. Ultimately, this noisy content of her desire leaves her bleak once "S." departs.

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[177] Toute ma vie aura été un effort pour m'arracher au désir de l'homme, c'est-à-dire au mien. En 63, je me répétais les paroles bibliques: "Et je ferai couler sur elle la paix comme un fleuve", ne sachant même pas que ces paroles voulaient dire mon désir, le sperme coulant sur moi comme un fleuve.

[178] Odeur de certaines choses qui rappelle celle – jadis détestée – chavirante maintenant, du sperme. Le 12 mai, 'Je peux mettre mon sperme sur ton ventre ?' […] Je mesure la force de mon attachement à mon goût ou mon dégoût du sperme. . Ainsi, violent dégoût avec P., à partir de 87. Et la première fois avec S., mon désir de le recracher dans le lavabo, à Leningrad.

[179] Les matins noirs (79); Chaque soir est noir" (83) ; Ce mois de juin aura été le plus noir depuis longtemps" (205) ; De plus en plus la noire impression […] qu'il ne m'a pas appelée avant son départ. (319).

Ernaux's memory of her encounters with "S." extend to unexpected literary connections: "Write this: I realized that I had lost a contact lens. I found it on his sex. (Thought : Zola lost his eyeglass in the breasts of his women. I lost my contact lens on the sex of my lover!)" (53).[180] This entry suggests that Ernaux has becoming fixated on the penis of her lover to the point of looking at it for so long, as opposed to the eyes of her lover who are continually shut, that her contact falls only on it. Like Zola, Ernaux must use artificial means to "see" clearly suggesting one level of simulated vision as well as an erotic desire to see her lover's sex in detail. The focal point of her gaze on the sex of her lover indicates the "focus" of her desire. As such, what she is seeing turns into a spectacle rather than authentic passion. The allusion to Zola also reinforces the exchange of erotic roles between men and women: in the nineteenth century, men assumed the position of the *voyeur*; in contemporary society, women can equally take on that role. In addition, where Zola and the narrator each lose their artificial eye piece is indicative of what is considered as erotic between men and women and the nineteenth century and contemporary voyeurism. Furthermore, she chooses to relate her desires to that of a nineteenth century male author creating a noisy effect to her description: an experience that is extremely intimate is made more banal and impersonal in citing Zola. This academic reference for an intimate act could also indicate a sort of detachment, of exteriority on the part of the narrator.

Finally, recalling Zola, a fiction writer, in her text alludes to the epigraph of her wanting to live a "fable" or a "story." The narrator is associating with the ability to create such a (erotic) story. As such, she seems to demonstrate two allegiances: to live a fable

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[180] Écrire cela : je me suis aperçue que j'avais perdu une lentille. Je l'ai retrouvée sur son sexe. (Pensée: Zola perdait son lorgnon dans les seins des femmes. Moi je perds ma lentille sur le sexe de mon amant !)

and to record her passion, both in writing. Consequently, the act of writing becomes a noisy means through which to experience both: as of a woman writer, she is liberating women from the taboo of recording bluntly their erotic experiences. On the other hand, this particular experience is bound up in literature, calling into question the emphasis on raw truth. Accordingly, the two "interfere" with each other causing noise instead of information.

Ernaux also compares her relationship with "S." with Odette's relationship to Swann in Proust's *oeuvre*: "To get to a moment where, like Swann, I would say that I lost my time and money (nearly true) for a man who, contrary to Odette for Swann, was my type, but who did not merit it" (185).[181] Again, Ernaux is underscoring the social differences between the beginning and end of the twentieth century: the narrator, a woman, can bear the role of the person who provides in the relationship. As such, she is also the one who is more dominant and who freely accepts the role as the *voyeur*. Similar to her association with Zola, the narrator has moved from reality to a fictionalized, dream world like that of literature inevitably introducing noise into an otherwise blunt recounting of reality. On one level, like Swann's obsessive love for Odette that is ultimately unfulfilled and his fixation on whether she is cheating on him, Ernaux is obsessed with "S." and constantly believes "S." may be with someone else when he is not with her. On a second level, her text is like a noisy meta-*mise-en-abîme*: Ernaux is using literature to describe literature which is offered as nonfiction. Siobhán astutely remarks:

> Ernaux's corpus can be viewed as reflecting the theoretical shift from
> homogenous autobiographical certainties of the past to the contemporary
> emphasis on fragmentation and on the transformative, rather than

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[181] Arriver peut-être au moment où, comme Swann, je dirai que j'ai perdu mon temps et de l'argent (presque vrai) pour un homme qui, à l'inverse d'Odette pour Swann, était de mon genre, mais ne le méritait pas.

reflective, relationship between 'reality' and literary representation. (11-12)

This analysis suggests that instead of a "transformative" relationship between "reality" and "literary representation" Ernaux is using these references to insert noise into her texts in order to challenge notions of contemporary desire.

Dreams do figure largely in *Se perdre,* Ernaux even acknowledging that she has little more to write about other than dreams, which torment her and seem to exist between her episodes of insomnia since "S." is gone (341). She writes about: "Tormented dreams" (234), "Dreams of S. and his wife" (330), "Insomnia, then waves of dreams, menacing" (353), and "the hideous dream" (361).[182] Furthermore, her text is dotted with examples of her marking time and dates. The dates offer a chronological point of reference for the reader. However, with the repetitive nature of her entries, the dates seem to lose their significance as marking time's passage: her dreams insert an element of noise that interferes with a way to differentiate time's passing. Consequently, dates become absurd and themselves become part of the noisy content.

Furthermore, she often cites time in her entries such as: "20 minutes to 10 maybe" (41) or "Brutal anguish since 4:30" (121) or "11:10. More and more worried […] Noon. He no doubt is not coming" (205)[183] reinforcing the fragmentation of her life. In addition, as with the date notations, these references to specific time become another noisy marker in her journey of desire. The only continuity in these references, which are otherwise random, is that they center on "S."

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[182] Rêves tourmentés (324) ; Rêve de S. et sa femme (330) ; Insomnie, ensuite vagues rêves, menaçants (353); le rêve affreux (361).

[183] 10 heures moins 20, peut-être (41) ; Depuis seize heures trente, l'angoisse brutale (121) ; 11 h 10. De plus en plus inquiète […] Midi. Il ne viendra sans doute pas. (205)

She ultimately confesses: "Don't reread my diary, because it's the worst. This written pain, this waiting, it was always hope, always life. (I'm crying here). Now, this same pain is no longer possible. There is only the void before me. The *unnamed terror* or the void, what a choice!" (323).[184] The void has supplanted the pain in which she locates herself and extended the domain of autobiography into a realm of emptiness. Instead of situating herself in relation to others and the pain associated with such relationships, she offers no reference point for her identity. *Se perdre* embodies Ernaux's quest to transform autobiography into an exploration of losing the self in the world to pain, suffering, and in the end, either to the void or to the terror and horror of reading what she wrote. Paradoxically, she uses these diaries to explicitly record her desire and voyeuristic eroticism only to be horrified herself at *looking* at it. Accordingly, the content of her *journal intime* foregrounds the inherent presence of disorder, turmoil and incoherence affirming the absolute "noisy" nature of contemporary autobiography. This examination qualifies such an autobiography not as simply a fragmented representation of life but one that can be simultaneously erotic, impersonal and horrifying in which noise plays a larger role in conveying the situation interior and exterior to the narrator than does information traditionally assumed to communicate the essence of the person or life the diary describes.

L'Usage de la photo is another of Ernaux's "explorations" in autobiography in which she allows another voice to participate with her in the (re)construction of her life through photographs. While not as impersonal or distant as the anonymous voices in *Journal du dehors* and *La Vie extérieure* that help create her "extimate" diary, Marc

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[184] Ne pas relire mon journal, car c'est l'horreur. Cette douleur écrite, cette attente, c'était toujours l'espérance, toujours la vie. (Je pleure, ici.) Maintenant, cette douleur même n'est plus possible, il n'y a que le vide devant moi. La *terreur sans nom* ou le vide, quel choix !

Marie's participation in this text constitutes not only an exploratory process in allowing

two people to (re)create an autobiographical text, but also an investigation in permitting

entries from both contributors to be equally valid in establishing reality through desire,

perspective, experience and writing. Consequently, two perspectives created

independently of the other are brought to bear on one event captured in each photo.

Ernaux admits at the end of the *L'Usage:*

> Soon we are going to exchange texts. I fear to discover what he wrote. I
> fear to discover his otherness, this difference in points of view that desire
> and the shared quotidian cover, that writing will reveal in an instant. Does
> writing separate or unite? (196)[185]

She in essence questions the ramifications of uniting two people through the written word

inspired by desire. Desire is a personal emotion and accordingly Ernaux and Marie will

offer different interpretations of the desire the photo, according to them, seeks to capture.

Thus, although the text identifies the two contributors for the text and separates their

content for each picture, the subjectivity that each narrative brings moves the content of

the text from order to incertitude and disarray. Furthermore, Ernaux explicitly

communicates her worry over the noise that may be created in uniting two texts

expressing desire.

An underlying characteristic of Ernaux's and Marie's description of the photo is

that they both attempt to verbally describe the visual in the photo. Ernaux's narratives

always open with a description with minimal emotional interjection. For example, for the

photo entitled "Chambre 223 de l'hôtel Amigo, Bruxelles, 10 mars" she writes:

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[185] Bientôt nous allons échanger nos textes. J'ai peur de découvrir ce qu'il a écrit. J'ai peur de découvrir son altérité, cette dissemblance des points de vue que le désir et le quotidien partagé recouvrent, que l'écriture dévoilera d'un seul coup. Est-ce qu'écrire sépare ou réunit?

> *Resembling bald ladies.* Before the unmade bed, the breakfast table with the pot of coffee, toast and the pastries which remain in the basket. On the bedspread a small black spot – the silk blouse that a friend gave me before my operation at Curie – and something red, maybe M.'s shirt […] In the background, a cracked window. (original emphasis; 45)[186]

All of Ernaux's narratives open in this fashion. This practice offers order to the content of her narratives: the reader can expect just such a description before Ernaux transitions into the memories or analyses each photo inspires. Admittedly, the associations that come to mind for her are unpredictable and sometimes recall her past or demand relevance to her present situation of being treated for breast cancer. She acknowledges: "It's my imagination that decodes the photo, not my memory" (31).[187] As opposed to an autobiography which is largely founded on recalling memories, this autobiography requires imagination when confronting the photographs. As such, noise can enter into the text in the form of reactions wished for in a certain situation or recorded thoughts that the narrator may or may not have experienced at the moment of the photo. Accordingly, new interpretations arise allowing for imagination and not just memory to constitute contemporary autobiography.

As such, the reader must admit the essential role of time in shaping Ernaux's and Marie's narrative. Unlike a personal diary where the diarist writes her entry right after an event and thus captures, based on memory rather than creativity, more "truthfully" and poignantly thoughts and emotions, Ernaux's and Marie's narratives emerge after a process which includes taking the picture, developing the picture, and then choosing the

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[186] *ressembler aux femmes tondues*: Devant le lit défait, la table du petit déjeuner avec le pot de café, les toasts et les viennoiseries qui restent dans la corbeille. Sur les draps un petit tas noir – la blouse de soie que m'a offerte une amie avant mon opération à Curie – et quelque chose de rouge, peut-être une chemise de M. […] Au fond, la fenêtre entrebâillée.
[187] C'est mon imaginaire qui déchiffre la photo, non ma mémoire.

picture. In the final analysis, ambiguity becomes an inherent property of Ernaux's autobiographical explorations due to time's passage. Chapter Three will examine the role of the Arrow of Time in identity, namely that time is irreversible and so identity is not rooted in the past but is open to the future, affirming Ernaux's choice to use imagination instead of memory to describe the photos.

In contrast to Ernaux's openings, Marie's openings fluctuate between giving an immediate physical description of the photo and offering his memories surrounding the photo and incorporating details from the photo with this memory.

> *Annie Lenox:* I had gone to buy roses on Anspach boulevard. It was a cool, gray afternoon, a Saturday. A. had stayed at the hotel, not calm, imagining no doubt that I was going to take advantage to contact my ex who I had broken up with on January 20th. I knew she was worried, and deep down this didn't displease me, knowing that I was going to come back with an armful of flowers, the first since we had met. These roses, they are there, in the shadow on the right of the photo. The window in the room looked out onto a square where the entrance to the Amigo is located. (original emphasis; 51)[188]

Interestingly, it is Ernaux, a woman, who attempts a more consistent opening format than Marie. As discussed in Chapter One, women have often been associated with chaos and men with order. In this work, the way Ernaux and Marie present the content of each photo questions this tenet. Again, Ernaux and Marie each create their narratives independent of the other. The differences in their presentation inevitably introduce not only dissimilar presentation structure, but also diverse content in building this

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[188] *Annie Lenox* : J'étais allé acheter des roses boulevard Anspach. C'était un après-midi gris et frais, un samedi. A. était restée à l'hôtel, pas tranquille, imaginant sans doute que j'allais en profiter pour recontacter mon ex, que j'avais quittée le 20 janvier. Je la savais inquiète, et au fond cela ne me déplaisait pas, sachant que j'allais revenir avec une brassée de fleurs, les premières depuis que nous nous connaissons. Ces roses, elles sont là, dans l'ombre à droite de la photo. La fenêtre de la chambre donne sur une petite place où est située l'entrée de l'Amigo. (51)

autobiographical work challenging the reader to consider unpredictable information associated with each photo. Furthermore, as the photographs do not hold any logical connection other than being ordered temporally but sporadically in time in the text, the reader will gain access to fragmented events in both Ernaux's and Marie's life reinforcing a discontinuous relationship between them as well as an overall disjointed autobiographical composition. The photo, while serving as the inspiration for the verbal component, contains an element of instability as Ernaux and Marie chose these photos from an array of photos they took. Photo selection, perhaps whimsical, perhaps not, is not treated in detail in this text, but is a pertinent, unstable element in the text's formation.

The quotidian objects of life make up each photo's content: clothes and furniture essentially. A characteristic of minimalist writing is foregrounding the banal. However, Marie acknowledges that the superficiality of these items should not imply a lack of import:

> The rest, the bread basket to the left of the microwave, oranges above, the trash can full of fruit peels, trays set vertical behind the faucet at the sink, an open Tupperware, are only illustrations of the quotidian, the remains of our breakfasts, behind which is hidden the essential: our uninterrupted conversations, the portable radio which distills, month after month, another litany – the entry into war by the United States on March 6th, the bombardments at six thousand meters in altitude, the fall of Bagdad. The horror at the other end of our love, as if the external world must always situate itself there: behind the kitchen window. (79-80)[189]

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[189] Le reste, la corbeille à pain à gauche du micro-ondes, les oranges au dessus, la poubelle pleine d'écorces de fruits, les plateaux disposes à la verticale derrière le robinet de l'évier, un Tupperware ouvert, ne sont que les illustrations du quotidien, les vestiges de nos petits déjeuners, derrière lesquels se cache l'essentiel : nos conversations ininterrompues, la radio portative qui distille, mois après mois, une autre litanie – l'entrée en guerre des Etats-Unis le 6 mars, les bombardements à six mille mètres d'altitude, la chute de Bagdad. L'horreur à l'autre bout de notre amour, comme si le monde extérieur, toujours, devait se situer là : derrière la fenêtre de la cuisine.

Consequently, the reader must recognize the *possible* conversations which completed the scene simply outlined by ordinary objects. As such, these objects veil the reality of the scene that Ernaux and Marie experienced through conversations, radio or television programs, and leave open for the reader unidentified verbal communication between them. Again, the photo only offers a superficial reality of the depth of potential information that the reader must plumb for regarding the scene.

Furthermore, Ernaux underscores the passion and desire that the photos and their objects represent. As discussed above, taking these photos is a way to capture and preserve the erotic in their relationship and to bridge their fragmented lives. In addition, the *act* of taking the photos increases the eroticism for Ernaux:

> The click of the apparatus is a strange simulation of desire, which pushes to go farther. When it's me who takes the photo, the manipulation, the adjusting of the zoom is a particular excitation, as if I had a masculine sex – I believe that many women feel this sensation. Each time, the click of the apparatus makes my head shiver with pleasure. The one who does not also orgasm with her brain does not perhaps know true pleasure. (123)[190]

The act of looking, of being a *voyeur*, implicates in Ernaux a feeling of having a penis, suggesting she has the power to probe the most intimate and sometimes forbidden areas of life. As discussed earlier with her contact lenses, the camera serves as an artificial means to be a spectator to an erotic scene as if her naked eye did not suffice to "take in" all that is erotic. This artificial viewing device becomes an extension of her own viewing capabilities, heightening her excitement that she will be able to always view the scene. However, admitting that it is her imagination and not her memory that will be responsible

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[190] Le déclic de l'appareil est une étrange simulation du désir, qui pousse à aller plus loin. Quand c'est moi qui prends la photo, la manipulation, le réglage du zoom est une excitation particulière, comme si j'avais un sexe masculin – je crois que beaucoup de femmes éprouvent cette sensation. A chaque fois, le déclic de l'appareil me fait tressaillir le cerveau de plaisir. Celui qui ne jouit pas aussi avec son cerveau ne connaît peut-être pas la vraie jouissance.

for her written reaction to the text suggests that her erotic experience could change each time, implying a background noise that will intervene and change the "information" from the photo.

Additionally, she gains erotic pleasure from taking the pictures, equating a visual orgasm with that of a physical one. Equally, Ernaux recognizes the erotic at the level of the objects in the photo:

> In all these photos, our clothes, suit, shirts, drag on the ground, exhibit what we never usually see, the tags with their advice on washing, lining, the support lining of stockings. We threw them in the urgency of desire risking to damage them or to stain them, without worrying about their market value: nothing *mattered* for the moment. They fulfilled their seduction obligations and they anticipate that which will be theirs one day, to serve as a rag to shine furniture or shoes. (original emphasis; 108)[191]

The clothes in the photos are simultaneously erotic, as they are tools of seduction and expose something not seen every day (labels and linings) and banal as the wearer will eventually discard them for cleaning rags. Again, *voyeurism* pervades the process of mapping the objects in the photo. As in *Se perdre*, Ernaux meditates in a sadistic fashion on fluids rarely seen much less photographed:

> I realized I was fascinated by the photos as I was since my childhood by the stains of blood, of sperm, of urine, deposited on the bedspreads or the old blankets thrown on the sidewalk […] The spots the most material, organic. I realize that I expect the same thing from writing. I would like that the words be like the stains which one is never able to remove. (99-100)[192]

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[191] Sur toutes les photos, nos vêtements, tailleur, chemises, traînent par terre, exhibent ce qu'on ne voit pas presque jamais, les étiquettes avec leurs conseils de lavage, la doublure, le gousset des collants. On les a jetés dans l'urgence du désir au risque de les abîmer et de les tacher, sans souci de leur valeur marchande : ne rien *compter* momentanément. Ils ont rempli leur fonction de séduction et ils anticipent celle qui sera la leur un jour, servir de chiffon pour lustrer les meubles ou les chaussures.

[192] Je m'aperçois que je suis fascinée par les photos comme je le suis depuis mon enfance par les taches de sang, de sperme, d'urine, déposés sur les draps ou les vieux matelas jetés sur les trottoirs […] Les taches les

This excerpt recalls the fragment recorded in *Se perdre* where she equates peace with sperm running over her like a river. The equal fascination with fluids, specifically bodily fluids, and photos heightens the eroticism of the photos as well as the narratives which follow. Words, like fluid stains, become just as obscene as the photos and thus it follows that she would compose a visual-verbal text as if the two were inextricable. The verbal becomes obscene as it is trying to interpret the gaze of the *voyeur*. Recalling the imagination's role in interpreting these photos, the imagination of the voyeur changes from the visual pleasure experienced at the time the photo was taken to a stimulating act of recording whatever the imagination creates.

Once again, the erotic is evoked through looking at what is usually forbidden. Consequently, objects that the reader encounters everyday carry a dual function: ephemeral eroticism coupled with insignificance. On the other hand, the human body is physically absent from the photos. Traditionally it is the human body that is the object and subject of eroticism. However, in this text, the body is an "absent presence" which Taylor defined above as a Serresian parasite in communication. The permanent absence of the body in these pictures heightens the eroticism of the unseen, but also renders the photos incomplete, such that the photos themselves cannot capture all the passion (and chance) that motivated the scenes.

Some of the most banal objects in life also mask frenzied moments of passion throwing the reader into a state fluctuating between the known and unknown. Indeed,

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plus matérielles, organiques. Je me rends compte que j'attends la même chose de l'écriture. Je voudrais que les mots soient comme des taches auxquelles on ne parvient pas à s'arracher.

Ernaux recognizes that both desire and chance create the placement of the clothes (12). She realizes there is no reason why the clothes lay as they do:

> No composition of clothes is similar to another. Each time a unique construction – *never a photo* – of which the causes and the laws escape us. […] At the beginning of the world there is the same principal which ceaselessly throws living beings against each other. (145)[193]

Marie admits that for the two of them, the scenes they photographed were as beautiful as a works of art "as remarkable in the play of its colors as in the interaction of the material" (41).[194] Thus, he elevates or equates their stature with high cultural significance and challenges their predictability. Ernaux views desire as chaotic, and the autobiographical text serves simultaneously as the structure and *mise-en-abime* of this view. The autobiographical text is composed of random photos which themselves create an overall "picture of the work" which is the chaos of desire. The text does not indicate why certain photos were chosen from approximately forty photos taken. Just as people encounter each other randomly as Ernaux presents in *Journal du dehors* and *La Vie extérieure*, so too the chosen photos were thrown against each other arbitrarily.

Ernaux also admits to having taken a picture of all the pictures with her camera (195). Her written text essentially does repeat the process but adds words. Seeking some form of order in not only the chaotic spread of clothes but also a unified meaning from them, she declares: "My first reaction is to seek to discover in the forms, the objects, the beings, as if before a Rorschach test where the spots will be replaced by pieces of clothes

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[193] Aucune composition de vêtements n'est semblable à une autre. À chaque fois une construction unique – *il n'y a jamais photo* – dont les causes et les lois nous échappent. […] Qu'à l'origine du monde il y a le même principe qui jette sans fin les êtres vivants les uns contre les autres.

[194] tant remarquable dans le jeu de ses couleurs que dans l'interaction des étoffes.

and lingerie" (31).[195] The psychological Rorschach test requires the subject to draw objective conclusions from an undefined image. Not only does Ernaux admit to this phenomenon, but also acknowledges a similar effect and importance for the reader:

> Photo, writing, each time for us it had to do with conferring henceforth a reality to the moments of un-representable and fugitive pleasure. To seize the unreality of sex in the reality of traces. The highest degree of reality, however, will only be attained if these written photos change themselves into other scenes in the readers' memory or imagination. (117)[196]

As a result, Ernaux's and the reader's interpretation of the photos will be unpredictable at best. A photo which seems to capture a well-defined moment in time in actuality offers little definite proof of a certain reality of desire. Marie even admits that "Photos always lie" (182).[197] He asserts that while a picture may convey a sense of joy and happiness rendering the spectator jealous of the lives represented, the reality of desire is that the time period following the picture may be replete with arguments and sadness. In essence, a photo is only one moment in time that has no bearing or implications for the future. This statement calls into question the authenticity of interpreting a photo in an autobiographical text. As isolated events, their import is indefinable and as Ernaux concludes, the only reality is that which is created in the mind of the reader. Interestingly, despite Ernaux's claim that imagination and not memory inspired her written passages, she suggests that the reader can use either imagination or memory to "attain" a true reality of passion. As such, she explicitly leaves it to the reader to decide for herself which is suitable. In the final analysis, desire is chaotic and noisy. As such, the ephemeral

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[195] Ma première réaction est de chercher à découvrir dans les formes des objets, des êtres, comme devant un test Rorschach où les taches seraient remplacées par des pièces de vêtement et de lingerie.

[196] Photo, écriture, à chaque fois il s'est agi pour nous de conférer davantage de réalité à des moments de jouissance irreprésentables et fugitives. De saisir l'irréalité du sexe dans la réalité des traces. Le plus haut degré de réalité, pourtant, ne sera atteint que si ces photos écrites se changent en d'autres scènes dans la mémoire ou l'imagination des lecteurs.

[197] Les photos mentent, toujours.

emotions of eroticism the voyeur experiences in taking the photos is hard to capture in words, suggesting Ernaux still has not found the exact combination through which to express desire.

Noise, as defined by science, can either impede information in a signal or can in turn serve as information. The texts presented in this chapter demonstrate that in contemporary literature, noise can serve both purposes as well. For Frankétienne, making noise is essential for communication to thrive. As such, he employs both the visual and verbal to create a minor literature, schizophony, in the midst of a dominating, major one. Frankétienne's works also tend to eschew a traditional narrative, embodying a mixture of genres which create noisy forms. Toussaint, while the form of his works, employing a traditional novelistic style, is vastly different than that of Frankétienne, creates the illusion of order in texts that are quite noisy. Consequently, Toussaint's preoccupation with time's passage is illuminated in considering transitions from noise to information and the inverse from information to noise: his texts demonstrate that contemporary novels judged to be minimalistic in form are anything but banal. Ernaux, similar to Toussaint, embraces traditional forms in her diaries and autobiographies. Her texts, like Toussaint's, while exhibiting a minimalistic form with a preponderance of white spaces in her texts, also contain noise that both inhibits and advances information. Ernaux's texts are concerned primarily with the chaos that desire can generate. As a result, she challenges contemporary notions not only of the diary and autobiographical genre, but also exactly what constitutes eroticism for women. Given these differences in the use of genre, Chapter Three will however analyze generic similarities in these authors' works and will

expand the examination to considering the role of identity in contemporary fiction through the lens of the Arrow of Time, bifurcation points and nodes of textual instability.

– Ô maître tout-puissant ! Je ne vais pas par quatre che-
mins, persuadé que vous savez déjà le fond de mes pensées.
Je m'adresse à vous, pour que vous m'octroyiez le premier
lot de la borlette. J'ai perdu une forte portion de mes
richesses en misant toujours sur de mauvaises boules. Dai-
gnez, ô souverain déchiffreur, m'accorder la chance de
récupérer mes biens. Mes amis m'ont abandonné. Et ma
femme m'a quitté.

– Vous avez bien dit. Les chiffres obéissent à mon pouvoir.
Et de plus, je connais les infinies combinaisons de la machine
humaine. Je sais toutes vos pensées. Je contrôle tous les méca-
nismes des désirs. Vous gagnerez le premier lot. Et votre
femme vous reviendra. Vous pouvez vous en aller en paix.

– Je voudrais vous payer maintenant, mon seigneur.

– Inutile. C'est déjà fait. La manivelle en marche. L'engre-
nage du destin.

– Comment ? répliqua le ventru étonné.

– Votre femme, répondit Mac Abre en souriant.

L'homme se leva, pensif. Le signal lumineux fonctionna.
La porte automatique s'ouvrit. Et le visiteur, visiblement
embarrassé, s'éloigna en s'épongeant le crâne, miroir
embué de sueur grasse.

Larmes miennes
mes sœurs jumelles
intermittence des eaux ramées
le sel et son rasoir
jusqu'au viol.

D'une coulée
file la barque
vers sa visée
ondes sous le ventre
fleurs fugaces.

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Figure 2: Frankétienne, *Ultravocal*, Paris: Hoëbeke, 2004, pg. 190. With permission of the artist.

Clameurs d'un équipage lointain. Insoupçonnable espoir nourri secrètement d'un filet de lumière.

Une mince silhouette traversa le champ de coton. Les chiens lâchés à la poursuite du prisonnier flairaient par moments les brindilles et les branches cassées. Capturé, l'évadé fut conduit dans la chambre de tortures. Là, Mac Abre procéda à l'arrachement des ongles. Dans les plis de la narration, quelques plumes d'oiseaux et des taches de sang.

La bousculade lâcha nos rêves démentiels parmi les fleurs du béton, les ossements, les épaves, le pullulement des odeurs, les heures racornies, le jambon rassis, les brindilles d'allumettes. Notre rire de jadis figé sous un masque de fer. Si seulement nous pouvions hurler avant de disparaître, nous aurions l'espoir que quelqu'un relèverait nos traces à travers le détraquement de l'horloge. Autrement, il est à souhaiter que la déroute des icebergs vers les mers chaudes n'échappe en définitive à personne parmi ces vagues qui chavirent.

– Quelle heure peut-il être ? demande Vatel à une passante dont les cheveux et la peau brillent d'un beau reflet d'or.
– Le soleil est loin dans sa course, répond la chabine. Alors, regarde un instant ma chevelure.
– Il faudrait que tu m'en laisses le temps, insinue Vatel. Pourquoi es-tu si pressée ?
– J'entends déjà le grondement de la marée montante.
– Mais ta chevelure me rappelle que c'est encore la saison des aménagements. Ecoute-moi, ajoute Vatel, la nuit approche. Poursuivons la route ensemble. Mac Abre campe

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Figure 3: Frankétienne, *Ultravocal*, Paris: Hoëbeke, 2004, pg. 146. With permission of the artist.

la lune en instance de départ.
Ô ma nébuleuse impondérable
mon ombre crucifiée ou pendue
nuage débranché
mon amour en deuil.

Projection d'épines hors des lèvres pour la décisive rencontre
de la fiction et du réel. Ainsi le lancement des couteaux et le
jaillissement des cibles sanglantes en plein air. Les figures du
jeu émeuvent avant la mise à mort. Les correspondances entre
la chair et la lame demeureront toujours secrètes. Conspiration
au cœur de nos désirs. La rupture éclaire le point de départ.
Ligne d'horizon. Faux baiser. Paysage mouvant peuplé de
dieux fous. Nos paroles impossibles tracent les limites de nos
rêves dans le balbutiement des étoiles subversives.

Nous sommes des bêtes boiteuses à la surface du globe
souvent à la dérive
entre serpents et chiens
navires et troncs d'arbres
planche de bouée et chat nageur.
La mer revient sur son aire de coraux ensablés
sexe en feu en une pause prématurée.
Je perçois les clameurs de la fête
ventre aussi vaste que ma main
de surcroît grâce de miel
névrose amère ma poupée muette.

Ville casquée d'orage sur des gradins d'épines et de zinglins
cirque de la mer entrebâillée
aux cris des squales en guerre
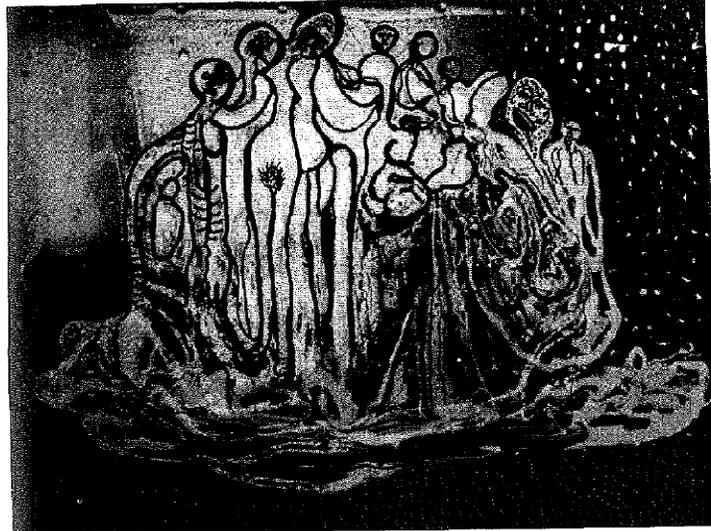
263

Figure 4: Frankétienne, *Ultravocal*, Paris: Hoëbeke, 2004, pg. 263. With permission of the artist.

Figure 5 : Frankétienne, *H'Éros-Chimères* Port-au-Prince: Spirale, 2002, pg. 139. With permission of the artist.

Rayures d'usure au sillage de la mort. Il s'agit d'un temps subjectif illusoire sur un champ de bataille imaginaire au milieu d'un entassement de cadavres mutilés, où l'on perçoit les convulsions des moribonds, les vibrations mécaniques de quelques corps traumatisés par l'ampleur du désastre. La mémoire hachée, émiettée, pulvérisée par l'étendue de la catastrophe que surplombe la fumée des souvenirs éteints.

l'avenir de la littérature
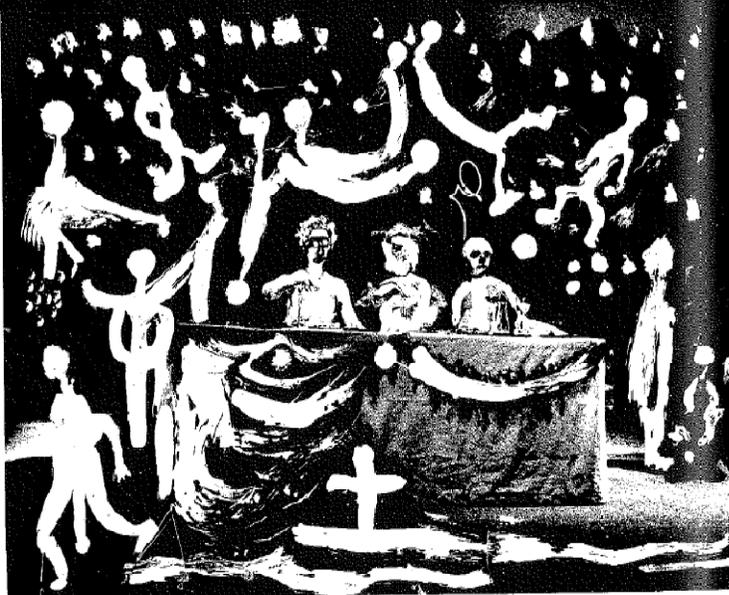
méditation sur le pouvoir

D'une explosive coïncidence
quand j'imagine

LA VIE L'art et la différence

Et je me surprends en train de tâter le pouls de ma douleur en éveil et de palper, dans une attitude de perversion insoutenable et de démence masochiste, les tatouages palpitants de ma mémoire mutilée, les noeuds brûlants de ma mémoire bleuie de gangrène.

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Figure 6 : Frankétienne, *H'Éros-Chimères* Port-au-Prince: Spirale, 2002, pg. 130. With permission of the artist.

Figure 7: Frankétienne, *H'Éros-Chimères* Port-au-Prince: Spirale, 2002, pg. 121. With permission of the artist.

Babel et Néant se sont succédé en toute complicité au coeur du chaos, de connivence avec le Temps, sur une plage onirique tantôt bruyante, tantôt silencieuse. *Se retrouver dans la trame chaotique des* témoignages.
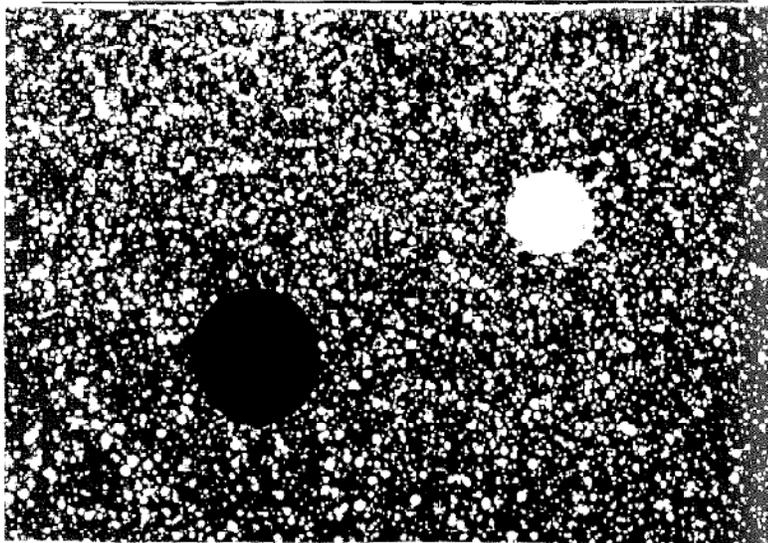
le désarroi

Temps de la quête et temps de la voyance avec chance miraculeuse et voltiges d'ombres hallucinatoires que les pas, les paroles et les gestes des voyageurs nocturnes et solitaires s'entremêlent et s'harmonisent en un lieu d'oasis et de source retrouvée après la traversée poussiéreuse de la mort illusoire, au terme des mutations et des métamorphoses incontournables. *À l'envers de l'exil, l'atelier du soleil et la sève du désert.*

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Figure 8 : Frankétienne, *H'Éros-Chimères* Port-au-Prince: Spirale, 2002, pg. 140. With permission of the artist.

MONOLOGUE INTÉRIEUR
EN CHAMBRE IMAGINAIRE
(Spirale dramatique en un acte)

OB-SCÈNE I

Ni oui, ni non. Mais un si d'exception que j'imagine en flux d'ondulations sous un drap de velours. Un lit à moustiquaire. Un lit à baldaquin. La chambre exceptionnelle avec des rideaux roses. Un abat-jour doré en tronc pyramidal sur une table circulaire en acajou poli. Un miroir elliptique. Encadrement de bronze. Deux tableaux exotiques. Peintures impressionnistes. La mémoire imbibée d'inquiétude et d'angoisse. Tout un apprentissage. Une longue initiation dans l'alternance des labeurs exaltants et des tâches fastidieuses. Pour elle, dans sa petite cervelle de rurale analphabète, elle vivait dans un espace magique. Un autre territoire. Un autre espace. Un univers étrange. Un pays étranger. Sans être montée dans un avion, ni dans un bateau, elle évoluait soudain dans le pays des blancs. Un autre monde avec ses normes et ses convenances. Une autre réalité avec ses perceptions propres, ses goûts, ses parfums, sa musique, ses bruits sourds et le silence.Une enclave paradisiaque sur la terre haïtienne.

Les pièges de la fiction
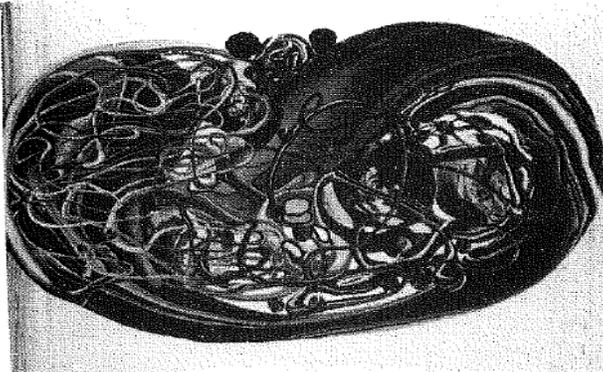
Par où commencer

ce que le cœur ne peut dire

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Figure 9: Frankétienne, *H'Éros-Chimères* Port-au-Prince: Spirale, 2002, pg. 245. With permission of the artitst.

OB-SCÈNE V

Des fleurs aléatoires dans le champ de l'Histoire.

Nuit du 4 juillet 1935. Commémoration de l'anniversaire de l'Indépendance des États-Unis d'Amérique. Il pleuvait, rageusement, interminablement, sur Port-au-Prince, cette nuit-là. Une semaine auparavant, France-Mary et la gouvernante Emma avaient pris place à bord d'un luxueux paquebot pour se rendre à Boston. La grande villa de Pacot était presque vide.

En cette nuit du 4 juillet, il avait commencé à pleuvoir très tôt. Dès les premières heures crépusculaires. Abondamment. Et sans arrêt.

Il pleuvait avec force. Il pleuvait violemment. Il pleuvait à vous couper le souffle et à vous crever le tympan. Il pleuvait intensément dru. Il pleuvait de la grêle et des cailloux gelés. Il pleuvait de la glace aussi dure que des éclats de pierre et des tessons de bouteille. Des avalanches. Des avalasses. Et de puissantes colonnes d'eau vomies par des monstres célestes en colère. Une cacarelle de pluie orageuse avec grondements de tambours diaboliques et roulements de tonnerres sataniques. Une vraie malédiction de pluie. Une déboulinerie de pluie dévastatrice avec des hurlements de vents nerveux. Il était neuf heures du soir. Et il pleuvait encore. Avec la même intensité. La même rage madichonne. La même sauvagerie aveugle et totale.

Le chauffeur n'avait pas pu venir chercher son big-boss, invité officiellement aux festivités organisées par l'Ambassade Américaine à Port-au-Prince. Les heures passaient. La pluie continuait de taper furieusement sur toute la ville. Et ils n'étaient que deux. Eux-mêmes tout seuls dans cette immense villa maspinée par les coups de vent et maltraitée par les orages. *La Spirale Infinie aux délices du vertige universel où* tout est interférence *exquise.*

UN MONDE QUE NOUS AVONS PERDU.

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Figure 10. Frankétienne, *H'Éros-Chimères* Port-au-Prince: Spirale, 2002, pg. 249. With permission of the artitst

OB-SCÈNE IX

Submergée de silence paralysant, je suis aux prises avec l'inconnu, l'irréel et l'ineffable. Je lutte avec une langue qui n'existe pas. Un embryon de langue. Une hypothèse de langue. Une supposition de parole dialectale. Il ne me reste que le silence déformé sous forme d'images foetales. Des déhanchements invertébrés. Des grouillements de lézards et de reptiles blessés. Des anolis. Des mabouyas. Des couleuvres. Je sens l'ombre bouger irrésistiblement tout près de moi. Faut-il résister, capituler ou me compromettre ? Craindre et en même temps défier les tracas d'un scandale fracassant ? Tout s'enchevêtre pêle-mêle sous la grêle et la pluie orageuse. Une tempête foudroyante. Un ouragan magnétique m'emporte. Un cyclone me soulève brutalement.
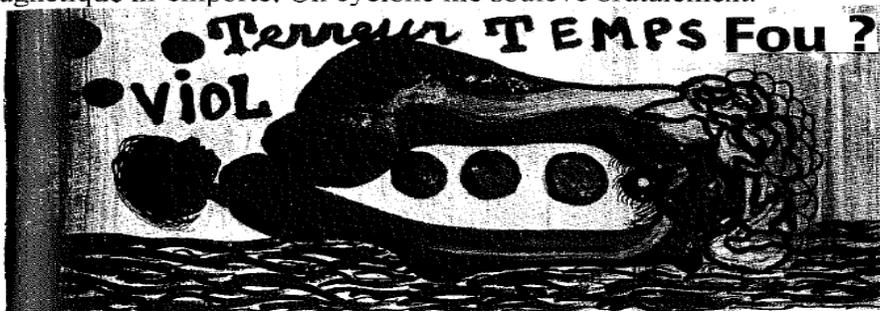
253

Figure 11. Frankétienne, *H'Éros-Chimères* Port-au-Prince: Spirale, 2002, pg. 253. With permission of the artitst

CHAPTER THREE: ORDER OUT OF CHAOS

From Reversibility to Irreversibility: The Arrow of Time

As discussed in Chapter One, the Arrow of Time changes the relationship between past and future. In Newtonian physics, time was considered reversible and thus the relationship between the past, present and future was inextricably linked. Events in the present were related to past conditions in a cause and effect association. Essentially, events were time-independent: rolling a ball across a table could be reversed to yield the same velocity and energy but in reverse without time playing a role in determining these characteristics. However, with the introduction of the Arrow of Time, the link between the past and the present is irrevocably broken. Prigoginian chaos asserts the mandatory existence of the irreversibility of time as represented in the "Arrow of Time." Without time symmetry, a system's values can be known only in terms of probabilities and not in terms of certitudes. Chaotic systems are irreversible since the *exact* initial conditions cannot be known, and thus running time backward on a system will not produce its original state.

The implications of this relationship suggest that the concept of identities, which have been traditionally traced linearly from past to present, need to be reconsidered. In the diary genre for example, identity has often been sought through revisiting the past to find connections and explanations for the present. Considerations of the future would always be burdened with past experiences. From the optic of the Arrow of Time, such connections are not so easily elucidated and in fact are often impossible to uncover. On the other hand, the Arrow of Time offers opportunities and an open-ended future. Indeed, identity can be viewed as a series of "becomings" in a world made up of laws and games.

This notion of "becoming" identities offers a new perspective for the analysis of a collection of works by Ernaux, Frankétienne, and Toussaint in relation to chaos theory as will be developed hereunder.

Becoming Identities

Identity construction as represented in literary texts and particularly in autobiography and autofiction, is one of several important problematics that pervade late twentieth century French literature.[198] However, autobiography and autofiction as developed in certain minimalist works such as Annie Ernaux's *Journal du dehors* (*Exteriors*) and *La Vie extérieure* (*Life outside*), Jean-Philippe Toussaint's *Autoportrait (À L'étranger)* (*Self-Portrait (Abroad* or *To the Stranger*) and Frankétienne's *Corps sans repères* (*Bodies Without Bearings*) and *Mots d'ailes en infini d'abime* (*Wings of Words in Endless Abysses*) are not concerned with creating a text that defines the author (the individual) according to her own personal experiences but rather (re)defines the genre at once by looking outside of self to the experiences of others and, similar to Spiralism,[199]

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[198] The term autofiction was first introduced by Serge Doubrovsky on the back cover of his work *Fils* (*Son* or *Network*) in 1977. Jacques Lecarme in his chapter "Origins and evolution of the notion of autofiction" ("Origines et évolution de la notion d'autofiction") in *Le Roman français au tournant du XXIe siècle,* Bruno Blanckemen, Aline Mura-Brunel, and Marc Dambre eds. (Paris : Presses de la Sorbonne Nouvelle, 2004: 15) describes autofiction as "texts where prevails the most perfect heteronymity between the sworn author and the protagonist-narrator. The notion of autofiction has greatly changed over the last twenty-five years. […] Autofiction, such as Philippe Lejeune and I presented it accentuated the prefix *auto-* and gave itself a referential object: the lived personal experience of the narrator; autofiction today emphasizes the substantive *– fiction*, in giving to *auto-* a specular and autotelic value: it is the narrative of the genesis of a fiction created by itself." Lecarme also updated a table in this chapter that he created originally in his work with Eliane Lecarme-Tabone (*L'Autobiographie*, Armand Colin, 1999: 274-275) where he lists a broad range of authors who could fall in the category of autofiction: Ernaux and Guibert (in the category "autobiography as true narrative"), Barthes, Céline and Guibert (according to a strict Doubrovskian definition), Camus, Duras, Khatibi, Perec and Robbe-Grillet (per the general definition).

[199] As noted in Chapter One, Spiralism can be defined as "A spiral work constantly in motion. This explains in part a suite of ruptures in the development of the text. Furthermore, it is not at all necessary to construct the work from a particular subject. Writing becomes from this point forward a true adventure, that of a multipolar story where each word, playing the role of the trigger, is susceptible to transform itself into a

by simultaneously requiring reader participation in identity construction.[200] As a result, individual identity is at once subverted (the author is no longer solely creating her own identity in her autobiography) and exalted (the reader's individual experiences are brought to bear on identity creation).

> Philippe Lejeune states in *On Diary* that
>
> An autobiography is virtually finished as soon as it begins since the story that you begin must end at the moment that you are writing it. You know the end point of the story, because you have reached it, and everything you write will lead up to this point, explaining how you got there […] An autobiography is turned toward the past, of his personality. (191)

Hippolyte, however, points up several authors who (re)define autobiography as such: "Medhi Belhaj Kacem calls today's autobiographies 'exobiographies'- Derrida prefers 'otobiographies,' while Bon speaks of 'external monologues' – that is biographies in which the reader activates the context" (17). These various labels reinforce the diversity in describing autobiography in late twentieth and early twenty-first century French literature. Chaos theory and its correlates (the Arrow of Time and bifurcation points) cannot be used to *explain* the how and why of literature (in this case locating identity in others). Yet, using scientific theories as a novel approach for analyzing contemporary literature is significant as both domains have been influenced by similar cultural forces. As a result, these borrowed theories offer insights which would otherwise be overlooked due to a popular belief in the irreconcilable differences between science and literature as

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core ready to split apart in order to give birth to other verbal entites. In this sense, the spiral is ultimately an open work never finished. The spiral is an attempt to capture the real in the diversity of its aspects." Kauss.
[200] Other contemporary authors who are not addressed in this analysis and have written autofictions and autobiography include Michel Tournier (*Le Journal extime*) Marie Redonnet (*Candy Story*), and Hervé Guilbert (*Suzanne et Louise*). Guilbert presents an interesting case study in that he, like Ernaux in *L'Usage de la photo*, incorporates pictures and text into his autofictions/biographies. Hippolyte has characterized Redonnet's autofictions as "always initiat[ing] something, bringing order out of chaos."(126).

equivalent *lieux de savoir*.[201] Annie Ernaux supports the idea asserted earlier that there is
an important rapport between science and literature particularly in France as she
acknowledges in an interview in *La France dans le monde* in 2000:

> I believe there is a very strong relationship between the activity of writing
> and scientific research. The scientist has a method, and with this method,
> he tries to see if it works. And I, relative to the project I'm doing, I give
> my method, and I formulate in the book a kind of discourse of the method.
> It is what I do at the beginning of *L'Événement* for example, but also
> elsewhere. (Pécheur)[202]

Ernaux's statement exposes writers' continued belief in literature and science both as
lieux de savoir, reinforcing this investigation's choice of borrowing theories from science
to bring a new critical perspective to literary analysis.

   Journal du dehors and *La Vie extérieure* by Ernaux are constructed like a diary.
Alain Girard in his book *Le Journal intime* (*The Diary*) characterizes a diary as a text
written daily where the author is personally present in the text, and the writing is not
destined for the public. However according to Girard, "to be intimate, still it is necessary
that the observation focus on the same person as the writer, on the private side of his life,
rather than on the exterior side […] Even if the writer portrays exterior events […] it is
not the event […] which interests the writer" (3-4).[203] Yet, *Journal du dehors* and *La
Vie extérieure* present observations of haphazard public encounters with little to no
internal observation by the author. Nonetheless it is precisely these exterior events that
interest Ernaux. Scenes from the metro or the grocery store and elsewhere are presented

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[201] See Chapter One for a more developed presentation of this idea.

[202] Je considère qu'il y a une parenté très grande entre l'activité d'écrire et la recherche scientifique. Le scientifique a une méthode et, avec cette méthode, il essaie de voir si ça marche. Eh bien moi, par rapport au projet qui m'occupe, je donne ma méthode, je formule dans le livre une espèce de discours de la méthode : c'est ce que je fais au début de *L'Événement* par exemple, mais aussi ailleurs.

[203] Mais, pour être intime, encore faut-il que l'observation porte sur la personne même du rédacteur, sur le côté privé de sa vie, plutôt que sur le côté extérieur […] Même s'il évoque des événements extérieurs […]ce n'est pas l'événement […] qui intéresse le rédacteur.

as brief, fragmented, chaotic, and non-linear but surprisingly quotidian. The minimalists retain the banality, the 'chosisme' originated in the Nouveau Roman, of the object presented in its normal milieu (27).[204]

The formless structure and recorded quotidian moments are common to a diary as noted by Girard (3). However, contrary to Girard's definition, Ernaux turns this diary focus from internal to external, reflecting a shift or (re)direction of autobiography as characterized by Kacem, Derrida, and Bon. Moreover, the disjointed format of her "reality" snapshots combines with the equally haphazard content of each entry to offer a characterization of the modern identity: a chaotic one. Each entry she records seems unrelated to the previous one, unless specifically noted. For example in *Journal*, a suite of unrelated entries begins in *Journal* with "A handicap person was at a cash register […] We were waiting at the dentist […] The S.N.C.F strikers […]" (50-51)[205] and in *La Vie* "The closing of the Renault factories in Vilvorde in Belgium […] In Cuba children rent their toys to other children […] This afternoon, for an hour, Laetitia, a student, recounted on France Inter […]" (89-90).[206] Consequently, the act of recording these events imitates the structure of the Arrow of Time: no causal link between events in the past can be determined opening up continued possibilities for future encounters. As a result, her

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[204] Robbe-Grillet, in his work *For A New Novel: Essays on Fiction* (Transl. Richard Howard. Evanston, IL: Northwestern University Press, 1989. Translation of *Pour un nouveau roman*. Paris: Minuit, 1963) states the purpose of objects in the New Novel (21): "Instead of this universe of "signification" (psychological, social, functional), we must try then, to construct a world both more solid and more immediate. Let it be first of all by their *presence* that objects and gestures establish themselves, and let this presence continue to prevail over whatever explanatory theory that may try to enclose them in a system of references, whether emotional, sociological, Freudian, or metaphysical. In this future universe of the novel, gestures and objects will be *there* before being *something*."

[205] Un handicapé était aux caisses […] Nous attendions, chez le dentiste […] Les grévistes de la S.N.C.F. […].

[206] La fermeture des usines Renault à Vilvorde en Belgique […] A Cuba, les enfants louent leur jouets à d'autres enfants […] Cet après-midi, pendant une heure, Laetitia, une étudiante a raconté sur France Inter […].

identity follows the same model: finding no connections in the past, Ernaux admits that it is only in the future that she can find her identity.

Instead of using unmarked or rarely marked dates, Toussaint separates the various parts of his work *Autoportrait (À L'étranger)* by cities and countries, some of which repeat. Michel Beaujour states: "The absence of continuous narrative in the self-portrait distinguishes it from autobiography. So does its subordination of narration to a logical deployment, a collation or patching together, of elements under heads that, for the time being, we shall call "thematic" (2). Beaujour does not believe that the self-portrait genre is autobiographical because of its lack of narrative sequence. This analysis posits, alternatively, that modern autobiography is no longer privileging a linear, retrospective narrative but one that is chaotic as discussed above. Consequently, the fragmented composition of diary genre and self-portraits are more similar than expected.

Toussaint's entries do not follow an explicit time-line, the only time marker being indicated when the narrator admits that, in the last "chapter" of the work, it has been two years to the day since he has been in Kyoto, situating the relationship between the two visits temporally. He takes the reader through the following cities and countries: Tokyo, Hong Kong, Berlin, Prague, Corsica, Tokyo, Kyoto, Nara, Vietnam, Tunisia and Kyoto again. While the cities are predominantly Asian, the visits have different purposes and do not seem related. Viewed through the Arrow of Time, an undesignated sequence of events is expected. As the Arrow of Time is a characteristic of a non-linear system, the definition of self-portraits as a genre can be revisited and emphasize thematic coherence over temporal linearity. The Arrow of Time thus offers an optic through which to better understand the dynamics of a self-portrait.

Franketienne's work, *Corps sans repères*, presents fifteen short autobiographies of people from around the world. Similar to Toussaint's work, there are seemingly no connections between the self-portraits the text presents. Unlike Toussaint's text, however, where the author is the common thread throughout all the mini-portraits abroad, the person in question in Franketienne's text changes with each vignette. This recalls Ernaux's format of describing encounters of people she randomly met each day. In essence, Franketienne combines the "self-portrait" aspect of Toussaint delineated by cities and countries and the random encounters of Ernaux. This combination of international self-portraits of a variety of people from the Bahamas to Zimbabwe passing by Montreal, Suriname and Guyana suggests the global chaos present in our society and also reinforces the notion of the universality of the Arrow of Time. As will be discussed below, each self-portrait offers instances of chaos in each place reinforcing the notion of chaos existing on a global scale. Time inevitably moves forward in these vignettes, essentially from birth to death, often in one sentence covering two pages.

More than Toussaint or Ernaux, Franketienne's works highlight the connection between memory and the Arrow of Time. He states in his preface to *Corps*: "I quickly understood the spiral of memory and silence. The spectral of memory of beings as fleeting traces of exploded islands. The absence of the body. The wide gap of nothingness. The infinitude of imaginary voices" (9).[207] Franketienne removes a person's physical body from their point of reference in the world to truly represent the impermanence and randomness of life. A person's memory is always changing and

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[207]J'ai vite compris la spirale de la mémoire et du silence. La spectrale mémoire des êtres comme des traces fugitives d'iles éclatées. L'absence du corps. La béance du néant. L'infinitude des voix imaginaires.

moving and is not stagnant.[208] This aspect will be underscored below by the form of long sentences continued by artwork and poetry in *Corps*.

In *Mots d'ailes* the emphasis is on the train of thought of the writer when confronted with worldly chaos. Similar to Ernaux's short recordings of her encounters with others, *Mots d'ailes* reinforces the randomness of the writer's thoughts in small paragraphs that imitate Ernaux's diaristic style of fractured recordings of daily life some written in prose, some in poetry, and some in dialogue. Frankétienne claims in his preface to *Mots d'ailes:*

> In my books, there is transparence and numerous fragments of a communicative nature with a social, political, historic, ideological and autobiographical dimension, nurtured by collective and personal testimonies. But at the same time, one finds an atmosphere of poetry, ambiguity, opacity, ludic fantasy, verbal pleasure […] I would even say of mystery drenched in metaphysical uncertainty. And this massif, sometimes chaotic, enigmatic and babelian, transforms, little by little, the reader into an active accomplice in a continual, creative process. An interminable quest in labyrinthine depths. (16)[209]

For Frankétienne, the word as a sign, much more than the content, will take precedence in expressing the Arrow of Time. Ernaux's content is easily recognizable as a description of encounters she has during her day. Toussaint clearly describes moments during his

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[208] George Christos in his book *Memory and Dreams: The Creative Human Mind* (New Brunswick, New Jersey: Rutgers University Press, 2003) relates memories to attractors and underscores their changing state (69): "Memories change with time because they interfere with each other. Old memories determine which new memories will be learned by determining which attractors a network attains, but the storage of these new memories/attractors also changes the synaptic structure in ways that change the old memories. Simulations with simple models demonstrate that memories evolve as the network continues to learn."

[209] Dans mes livres, il y a de la transparence et de nombreux fragments à caractère communicatif avec une dimension sociale, politique, historique, idéologique, autobiographique, nourrie par des témoignages collectifs et personnels. Mais en même temps, on retrouve une atmosphère de poésie, d'ambiguïté, d'opacité, de fantaisie ludique, de jouissance verbale […] je dirais même de mystère gorgé d'incertitude métaphysique. Et ce massif, à fois chaotique, énigmatique et babélien, transforme peu à peu le lecteur en complice actif dans un processus créatif continu. Une interminable quête dans les profondeurs labyrinthiques.

narrator's travels to certain cities. Frankétienne in *Mots d'ailes* communicates the chaos of his emotions and of those around him without giving specific reference to places or events. While Ernaux and Toussaint focus more on content and Frankétienne on words to portray the societal chaos around them, all three address "becoming" identities as will be discussed next.

Diaristic (Re)Directions

Ernaux records her entries, although not all are labeled, in an approximate temporally linear fashion. She pushes us along her Arrow of Time, into the future which is typical for the diary genre. However, she acknowledges the irreversibility of this arrow when she says in the preface of *Journal du dehors* (1993): "I felt the urge to transcribe the scenes, words and gestures of unknown people whom one meets once and whom one never sees again; graffiti hastily scribbled on walls and erased" (8).[210] Like the graffiti that she records in her diary entries, the people Ernaux meets and observes only once present her reality as well as their own. In other words, we all follow the same Arrow of Time.

She realizes time moves ahead, situations change, and "initial conditions" of each moment evolve. As she records these scenes, she offers one of the few internal observations in the book. Not only does she witness the Arrow of Time around her, she realizes she too is moving along the same arrow. As a result, she recognizes her identity is not found within her, but outside of herself and within others. She asserts in *Journal*:

> So it is outside my own life in passengers commuting on the subway or the
> RER, in shoppers glimpsed on the escalator of the Galeries Lafayette and

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[210]J'ai eu envie de transcrire des scènes, des paroles, des gestes anonymes, qu'on ne revoit jamais, des graffiti sur les murs, effacés aussitôt tracés.

of Auchan that my past existence lays. In complete strangers who do not suspect that they possess part of my history, in faces and bodies which I shall never see again. No doubt I am myself, in the crowd on the streets and in the stores, carrier of the lives of others. (106-107)[211]

Unlike traditional diaries, Ernaux does not analyze the past but continually records her present and must constantly look to the future to learn more about herself.

Prigogine and Stengers make a similar comparison:

Once we have the arrow of time, we understand immediately two main characteristic of nature: its unity and its diversity: unity because the arrow of time is common to all parts of the universe (your future is my future; the future of the sun is the future of any other star); diversity as in the room where I write because there is air, a mixture of gases that has more or less reached thermal equilibrium and is in a state of molecular disorder, and there are the beautiful flowers arranged by my wife, which are objects far from equilibrium, highly organized thanks to temporal, irreversible, non-equilibrium processes. (*The End of Certainty* 56)

Prigogine and Stengers purport that, even though we all follow the same arrow of time, we are not necessarily exactly the same. Different systems such as the air or the flowers in the room will necessarily follow the same arrow of time but are still diverse in *the manner* in which they proceed into the future each according to its internal composition. The air can grow stale, cold or hot; the flower will most certainly bloom, fade, and then die. Yet, these two evolutions will happen together into the future. Likewise, Ernaux claims others contain her past, implying her necessarily diverse nature. Each human being is different and distinct. Yet, Ernaux must continue into the same future of others and encountering people to find herself. She cannot go back to the past to find her past as

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[211] C'est donc au-dehors, dans les passagers du métro ou du R.E.R., les gens qui empruntent l'escalator des Galeries Lafayette et d'Auchan, qu'est déposée mon existence passée. Dans des individus anonymes qui ne soupçonnent pas qu'ils détiennent une part de mon histoire, dans des visages, des corps, que je ne revois jamais. Sans doute, suis-je moi-même, dans la foule des rues et des magasins, porteuses de la vie des autres.

those people who contain her history do not exist in her past; they exist in her present and her future as she acknowledges in *Journal*:

> Imagine returning to a city from where one left long ago that one will find the people such as they were immutable […] the same misunderstanding of reality and the "me" as the only measure […] desire to recapture the "me" of another time in the beings stuck forever in their last image at our departure from the city. (74)[212]

Even she is not a constant in time and cannot try to go back to the past in her current present "state of being" as she has also changed. Furthermore, Ernaux rejects looking within herself to find herself as she notes in *Journal*: "I am sure that one can learn more about oneself by embracing the outside world than by taking refuge in the intimacy of a diary – which, born two centuries ago, is not necessarily eternal" (10).[213] The diary genre is not eternal for Ernaux whereas, with the Arrow of Time, the world is eternal since the Arrow of Time assures the future's openness. As such. She must look to the future for her identity. She echoes this sentiment on the back cover of *La Vie extérieure* when considering the strangers she encounters daily:

> It even seems that it's not me who has recorded them. They are like traces of time and history, fragments of a text that we all write only in living. However, I also know that in the notations of this exterior life, more than in a private diary, sketches my own history and the faces of my resemblances.[214]

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[212]s'imaginer en retournant dans une ville d'où l'on est parti depuis longtemps qu'on retrouvera les gens tels qu'ils étaient, immuables […] la même méconnaissance de la réalité et le moi comme seule mesure […] désir de ressaisir le moi d'autrefois dans des êtres arrêtés pour toujours sur leur dernière image à notre départ de la ville.

[213] Et je suis sûre maintenant qu'on se découvre soi-même davantage en se projetant dans le monde extérieur que dans l'introspection du journal intime - lequel, né il y a deux siècles, n'est pas forcement éternel.

[214] Il me semble même que ce n'est pas moi qui les ai transcrits. Ce sont comme des traces de temps et d'histoire, des fragments du texte que nous écrivons tous rien qu'en vivant. Pourtant, je sais aussi que dans les notations de cette vie extérieure, plus que dans un journal intime, se dessinent ma propre histoire et les figures de ma ressemblance.

She recognizes that many people of her fragmented life constitute her being. Consequently her identity can only be realized in living real life.

Evolving Self-Portraits

In his reflection on "Vietnam" in *Autoportrait* Toussaint compares life in Hanoi to life in general "Traffic in Hanoi is like life, even, generous, abundant, dynamic, perpetually in motion and in constant imbalance" (85).[215] Like Ernaux who realizes she is trying to capture glimpses of life that come and go, Toussaint admits to time's inevitable passing, however unpredictable. His description is essentially that of the scientific Arrow of Time:

> Time was flowing and I couldn't do anything to stop it, I was swept along in the flow of traffic in Hanoi, all this intense traffic which flowed at the same time that I did in the streets like water in an overflowed riverbed, never confronting an obstacle, but always avoiding it, dodging it and following its route, snaking, weaving, starting again and always advancing, following its path without anything constraining it, without ever forcing anything, imposing nothing and being however irresistible, imperious, with the force of the wind, the necessity of the tides.(86-87) [216]

As Prigogine and Stengers advocate, everything and everyone follows the same Arrow of Time although each person or object does so according to her own internal constitution. Toussaint's description emulates this belief. In addition, time is not particularly linear, and traffic offers an excellent metaphor for how we advance in the Arrow of Time: traffic

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[215] La circulation à Hanoi est comme la vie même, généreuse, inépuisable, dynamique, perpétuellement en mouvement et en constant déséquilibre.

[216] Le temps s'écoulait et je n'y pouvais rien, j'étais entraîné dans le flux de la circulation de Hanoi, toute cette intense circulation qui s'écoulait en même temps que moi dans les rues comme de l'eau dans le lit d'un torrent, n'affrontant jamais l'obstacle, mais l'évitant toujours, l'esquivant et poursuivant sa route, sinuant, se faufilant, repartant et avançant toujours, suivant son chemin sans jamais rien contraindre, sans jamais rien forcer, n'imposant rien, et pourtant irrésistible, impérieux, avec la force du vent, la nécessité des marées.

is neither completely predictable nor constant and it cannot be stopped if only temporarily. Likewise, life flows without recourse to the past. Life is ever advancing.

Similarly, the self-portrait genre represents this movement: the author's life is advancing in time although no markers are given to demonstrate a relationship between the events. Other than a brief mention of two trips to Kyoto, the visits to other cities are not interrelated. The physical displacement between cities visited also imitates the sinuous traffic pattern and time mentioned by Toussaint here above. Kyoto can represent the "starting again and always advancing" characteristic of time. Indeed, in his second trip to Kyoto, he remarks how things have changed, as in other places he has visited. Like Ernaux, Toussaint does not experience the same situations when he returns to a city:

> It wasn't the first time that I saw a place disappear as such that I used to frequent in the past, to see transformed a place that I had known […] I became aware that time had passed since my departure from Kyoto […] I suddenly felt sad and helpless before this harsh evidence of time's passage. (118-119)[217]

He voices comparable sentiments toward time and is saddened at the prospect of time's passage. His nostalgia is bound up not only in the passing of time but also in the futile act of writing as a way to slow time's passing. He ends his self-portrait in so claiming:

> Until now, this sensation of being swept away by time had always been attenuated by the fact that I was writing, to write was in some way a method by which to resist the current which was sweeping me away, a manner to inscribe myself in time, to mark some reference points in the immateriality of its passage, some incisions, some scratches. (119-120)[218]

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[217] Ce n'était pas la première fois que je voyais ainsi disparaitre un lieu que j'avais fréquenté dans le passé, se transformer un endroit que j'avais connu […] je pris conscience que le temps avait passé depuis mon départ de Kyoto. […] Je me suis soudain senti triste et impuissant devant ce brusque témoignage du passage du temps.

[218] Jusqu'à présent cette sensation d'être emporté par le temps avait toujours été atténuée par le fait que j'écrivais, écrire était en quelque sorte une façon de résister au courant qui m'emportait, une manière de

Ernaux has made analogous claims that writing is a mechanism to stop time as discussed in Chapter Two in relation to dissipative systems. Writing, like such dissipative systems, is a way to bring order to and slow chaos, if only temporarily. Toussaint, in writing a self-portrait situated abroad, experiences the extreme limits of seeking identity in foreign places through writing. Not only is he describing himself among others, but among other *foreigners.* Changing the point of reference from his fellow countrymen to foreigners suggests that Toussaint underscores the importance, indeed preference of relating identity to strangers and foreign cultures. Toussaint's point of view here differentiates him from Ernaux in the process of shaping their identity. Ernaux chooses a domestic setting while Toussaint chooses a foreign one. However, writing, which is used to describe life, will not stop time as time cannot be stopped. Places and people will change continually as Toussaint notes here and in his other works discussed in Chapter Two.

As Craig B. Brush notes, "Amid the welter of self-portraits, one thing remains clearly true: the artist does not change his style when he undertakes the unique subject, himself. A Van Gogh portrait of himself is immediately recognizable as a Van Gogh" (20). A Toussaint portrait of himself is immediately recognizable as a Toussaint and the themes that accompany his portraits even in his fiction. Consequently, even writing about places in detail will not keep them from changing. His visit back to Kyoto confirms this fact and consequently, his written description of them will change. The first trip to Kyoto was spent outside the city with a friend from Luxembourg. During his second visit he was alone and nostalgic about changes he notices in the metro stations and the city squares.

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m'inscrire dans le temps, de marquer des repères dans l'immatérialité de son cours, des incisions, des égratignures.

While these writings may capture the moment, they are not eternal. Another visit to Kyoto will inevitably lead to more realizations of changes. The Arrow of Time allows an interpretation that change and time's passage are inevitable and that writing a self-portrait is not a permanent representation of self, but is rather one which evolves. As a result, the identity painted in a self-portrait cannot be retrospective, but must forcibly be prospective. Toussaint's anxiety over this impermanence is voiced in the closing lines. Ending his self-portrait on this mournful declaration of time's passage suggests that even after writing his self-portrait, he has not been able to capture himself in time. It was his return visit to Kyoto which exposed this underlying sentiment. However, instead of viewing this incomplete self-portrait as inadequate, the Arrow of Time offers an interpretation which allows the existence of an incomplete self-portrait. As time is still evolving and the world is changing, [t]he concern is not that a person is drowning in a world of unknowns, but rather that she is advancing and changing with the world. While Toussaint's *malaise* indicates his desire to preserve time, the Arrow of Time allows the reader to understand what Toussaint is suggesting: time is not reversible to identity. Time is integral to identity.

Incidentally, Toussaint's title can also be interpreted as *Self-Portrait (To The Stranger).* With this title, Toussaint challenges the traditional notion of self-portraiture. Anyone reading or viewing an unknown self-portrait will always be a stranger by moving forward in time, by discerning our identity, that we may not be strangers to ourselves. Again the malaise expressed in the ending of Toussaint's work reveals his desire for identity to be concrete and permanent. This other interpretation of the title suggests however that Toussaint is a stranger to himself in spite of his self-portrait.

The Spiral of Diaries and Self-Portraits

In Frankétienne's *Corps* each self-portrait is presented by a different person challenging the traditional notion of self-portraiture by one artist creating the entire work. Frankétienne does write the entire work. However, each vignette is composed in the first person immediately framing a self-portrait. As the title suggests, the work "bodies without bearings" will offer descriptions of individuals without any reference or link between them. Similar to Toussaint's portrayal of the disconnectedness between journeys, Frankétienne's examples not only change location, but also individual characters.[219]

The pattern to each vignette, when read linearly, is approximately as follows: self-portrait, a painting with various undefined forms often with words faded on the background, a poem, another painting, followed by another poem. No relationship seems to be established between each of these individual parts. The "physical" linear progression through each chapter imitates the Arrow of Time: while, as Prigogine and Stengers claim, we all follow the same Arrow of Time, each individual does so in her own way. Likewise, although the overall linear progression of each vignette follows the same order, the stories, drawings and poems are all different and unpredictable.

On the other hand, as Frankétienne has noted, a spiral can be read in any order.[220] Understood in this fashion, the spiral is an excellent imitator of the Arrow of Time as movement into the future is unknown. A reader may choose to read the text in one order

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[219] His self-portraits visit the following countries: Bolivia, Costa Rica, Montreal, Grenada, Dominica, Haiti, Panama, Peru, Zimbabwe, Suriname, Jamaica, Colombia, Chile, Guyana and the Bahamas.

[220] Frankétienne, in the preface of *Ultravocal*, offers the following definition for a spiral text (12): "Mobile maps. Variable axes. Nothing is imposed on the reader who can thus evolve, in the space of the book, without the constraint of observing a pre-established itinerary. In such a case, the pagination only serves as a point of reference. It does not define the order of reading. The title is only a problematic indicator with multiple resonances."

during one reading, and choose another order for a second reading. In these instances, the order will be unpredictable but the reader will still "finish" the work eventually. This order may never be able to be spontaneously recreated. The exact page numbers may be reread in the same order if the reader notes them, but all the "initial conditions", that is, feelings and events surrounding the reading can never be recreated exactly. The Arrow of Time allows the reader to view the text as one which is constantly advancing and connected, however chaotic and unrelated it may seem.

A frequent characteristic in each of Frankétienne's vignettes is one sentence covering two pages which describes the person's life from birth to death. This form suggests a life in constant movement. In fact, most of these vignettes are written from the point of view of a dead person, which is another challenge to a traditional self-portrait. This perspective is essential in order to structure the portrait on the Arrow of Time and to ensure its irreversibility. While each vignette offers several concrete markers of the person's life (where they were born, the city, the date, and how they died), the structure and content suggest an individual without *repères*:

streets of chance (32)

or

to not drive anywhere but to the very depths of the night (32);

or

I prevail, I slave away, I commit crimes, I rhyme, I fly, I fly away, I twirl in a thousand flowers of writing and I erase doors and windows in great metaphoric coups (39);

or

I especially lived in Lima at the heart of the urban brouhahas tombolocotos cocolocos solocotos in the middle of a babel of torn, bloody wings and in the middle of a chaos of an earth flower (56);

or

I pursued the Caribbean quest in the pirating of stars shipwrecked between Bermuda and the Bahamas in the sweet perfume of my *cadavre exquis* between the absence and presence the foam of nothingness in an atrocious triangle. (101)[221]

The lives of each person are characterized by a lack of boundaries and markers. As such, their life follows the uncertain Arrow of Time. Although told retrospectively after death, chaos and chance pervade each life. As one might look retrospectively on a chaotic system, the chaos and incertitude are still prevalent. A retrospective analysis does not bring order to the system, just clarification of the chaos present. As such, the self-portraits in *Corps* reflect this chaos. Only the first two portraits contain more than one long sentence. In these cases, the portrait is intermixed with long sentences and short fragments. As the Arrow of Time is unpredictable and irreversible, some memories come in spurts whereas others seem to begin a thread of life that is continuous without interruption, however unexpected until death.

In *Mots d'ailes* (*Wings of Words in Endless Abysses*; the title in French also sounds like "Models in Endless Abysses" as well) the notion of the echo serves to explain memory and its relation to the Arrow of Time. This book is composed of fragments of

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[221]" rues du hasard" (32) ; "pour ne conduire nulle part qu'au tréfonds de la nuit" (32); "je prime je trime je crime je rime je vole je m'envole je virevolte en mille fleurs d'écriture et je rature portes et fenêtres à grands coups de métaphores" (39); "j'ai surtout vécu à Lima au cœur des brouhahas tombolocotos cocolocos solocotos urbains au mitan d'un babel d'ailes déchirées ensanglantées et d'un chaos à fleur de terre." (56); "je poursuis la quête caraïbe dans la piraterie des étoiles naufragées entre les Bermudes et Bahamas au doux parfum de mon cadavre exquis entre l'absence et la présence les écumes du néant dans un atroce triangle amer." (101).

poetry, prose and narrative. Like Ernaux's texts they are randomly spaced throughout the text and characteristic of Frankétienne's works in the sense that the fonts and size of the letters vary. The fragments do not seem to be connected in theme and there is no underlying narrative. As a result, although not directly named as a diary, Frankétienne's *Mots d'ailes* and Ernaux's "extimate diaries" resemble each other. The fragments in *Mots d'ailes* represent spontaneous ideas and thoughts of the author. As with Ernaux's texts, the entries in *Mots d'ailes* do not offer self-reflection, but rather general observations about life.

In a more explicit fashion though than Ernaux's texts, *Mots d'ailes* underscores time's transitory qualities:

> A voyage without caliper or compass towards the devastation an adventure of blindness irresponsible to a shipwreck of perfection […] Life submerged in unpredictable adventures bypassing the game of entangled roots, the birth of flowers and the fire of fruits. (20)

> or

> Divine itinerary/the epiphany of the universe/of an infinite birth/an elsewhere without borders (55)

> or

> It's true that all is relative in this universe of incertitudes. (126)[222]

As with Ernaux and Toussaint, Frankétienne recognizes that time cannot be stopped and that life is filled with uncertainty. Frankétienne's text, viewed through the Arrow of

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[222] Un voyage sans compas ni boussole vers l'anéantissement une aventure d'aveuglement irresponsable à perfection de naufrage […] La vie submergée d'aventures imprévisibles outrepassant le jeu des racines enchevêtrées, l'éclosion des fleurs et l'incendie des fruits (20); Itinéraire divin/l'épiphanie de l'univers/d'une infinie naissance/un ailleurs sans frontières (55); C'est vrai que tout est relatif dans cet univers d'incertitudes. (126).

Time, proves that the structure of time is an essential theme as well as a structuring element, instead of simply appearing as a chaotic, surrealistic, and random production.

With over 300 pages of three to five fragmented entries per page, some of the entire or partial sections of the entries do repeat, imitating a written translation of an echo. Some of the entries repeat word for word while others contain slight alterations. The texts surrounding each fragment are different in each instance. Sometimes, the repeat fragments are also surrounded by modified "echoes" of other fragments. A structuring model of the text is a spiral, one metaphor for the Arrow of Time[223], one which is regressing, assimilating and advancing. These echoes can represent human memory: some episodes are sparked by similar situations, some memories return under very different circumstances, and even some thanks to other memories. The Arrow of Time suggests that time is not reversible and that life is unpredictable. Viewed as a spiral, memory continues to evolve. As in Toussaint's text where time is flowing like a current that goes around obstacles, regresses, but is always advancing, Frankétienne's echoes, serving as memory, also trace this path. Retrospectively, echoes, like memories, are fleeting and their emergence is never known. Similar to evolving identity discussed above, memories, viewed through the Arrow of Time, too are evolving and changing. Like identity, they are not fixed. Frankétienne mentions in *Mots d'ailes* "cacophonic echoes" (149) suggesting that memory, like echoes, are not harmonious.[224] Science defines an echo as a sound which is reflected off a surface and which repeats due to the

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[223] See Chapter One ("Difference and Repetition") for a discussion of Overton's suggestion of the spiral of a chambered nautilus as a metaphor for the Arrow of Time. Also discussed in Chapter One ("Time's Arrow") is the question of the physical direction of the Arrow of Time as suggested by Prigogine and Stengers. Prigogine does not address whether the arrow is straight or curved, but only that it advances in time. This analysis posits that the Arrow of Time can function like a spiral.

[224] échos cacophoniques

reflection. The repetitions however will be slightly different from the original sound due to sound wave's contact with the surface. Frankétienne's repetition of fragments of fragments emulates these sorts of echoes. Consequently, modern interpretations of memory allow for representations of a memory that is disconnected, unpredictable and evolving, freeing the human being from "the game of entangled roots."

"Our most sweet existence is relative and collective, and our true self is not entirely within us. Finally, such is man's constitution in this life that we are never able to really enjoy ourselves without the participation of others" (210).[225] This quote is from the dialogues Jean-Jacques Rousseau wrote between 1772 and 1776 in the form of a conversation "between two characters", 'Rousseau' and 'The Frenchman' who discuss 'Jean-Jacques's' works and ideas. Thus, the idea of locating identity in others is not singular to the twentieth century. The opening quote to Ernaux's *Journal* is an excerpt from Rousseau's text and establishes a precedent for many subsequent authors: "Our *true* self is not entirely within us" (6).[226] To add one more example among many others in French literature, in discussing self-portraiture, the mirror and one of the most renowned self-portraitist, Montaigne, Brush states:

> Does Montaigne need some analogue of the mirror for his written self-portrait? One might argue (I would not) that he did. The argument would run as follows: his only way of knowing or seeing himself would ultimately depend on seeing himself through others. We know ourselves in the last analysis by using words to describe ourselves, words which we can learn from others. Our social codes, our expectations for ourselves, all are instilled in us by others who are the mirror without which we could not see ourselves. The self cannot exist and could not be aware of its being

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[225] Notre plus douce existence est relative et collective, et notre vrai moi n'est pas tout entier en nous. Enfin, telle est la constitution de l'homme en cette vie qu'on n'y parvient jamais à bien jouir de soi sans le concours d'autrui.

[226] Notre *vrai* moi n'est pas tout entier en nous.

without this context. While there is some truth to this way of thinking, it is
a truth that does not particularly illuminate Montaigne's case. (21)

While Brush would advocate that Montaigne only needed self-reflection to create his self-portrait in *Les Essais*, this investigation suggests, as does Rousseau, that in fact the world outside of the self is exactly the mirror needed for true self-knowledge. Within this world is chaos, and chaos theory helps to reveal how each of these authors uses such a mirror. Ernaux chose Rousseau's quote as an extremely pertinent epilogue. Toussaint astutely marked his self-portrait as one developed abroad, or in the company of strangers in foreign lands. Frankétienne qualifies his self-portrait and modern diary as one without references, physical and emotional. Ernaux's experiences in the metro, Toussaint's encounters in foreign countries, and Frankétienne's retrospective approach to memories constitute the mirror needed for the creation of self-identity.

Consequently, this analysis points up an idea within the 'ecology of ideas' in the late twentieth century about identity that pervades both literature and science. As Hayles advocates: "[My approach] seeks to delineate an ecology of ideas, to see similarities between scientific and literary theories as interrelated propositions that appear in separate discourses concurrently because they are responses compatible with the cultural environment" (*Chaos Bound* 177). Ernaux locates personal identity in others, Toussaint paints his identity in relationship to his encounters with foreigners, and Frankétienne underscores the fragmentary notion of memories. Prigogine and Stengers propose the concept of the irreversibility of time which prohibits looking into a fixed past to explain the present or the future which this investigation is using to explore identity in contemporary French fiction. This assumption necessarily calls into question the definition of the diary and self-portrait genre which traditionally locates identity in the

diarist or self-portraitist and suggests an exception in the genre, an exception which allows identity to be found in others, in the future, in evolving memories and neither in self nor the predetermined past. Life is chaotic, but as a result of the Arrow of Time, the notion of identity will evolve from chaos and not be lost in it.

The Arrow of Time also prescribes that one cannot turn back the clock to better understand why the system chose to either remain chaotic or to 'self-organize.' Fieke Schoots in her book *Passer en douce à la douane: l'écriture minimaliste de Minuit (From quiescence to declaration: minimalist writing of Minuit publishing house)* suggests that chance is the principal organizer of the minimalist narrative (130). She claims:

> Minimalist writing is not characterized uniquely by brevity, sobriety and simplicity, but especially by the absence of causal conjunctions at all levels of the narrative. Due to this absence, the arbitrary becomes the organizing principle of the narration. This does not mean that the narratives are deprived of structure, but that traditional organization was abandoned for example in favor of recursive structures. These are the characteristics of the minimalist esthetic. (56)[227]

However, in light of chaos theories, she views "chance" as a complex accumulation of invisible causes (130). This investigation will explore the function and consequences of initial conditions, bifurcation points and instabilities in the diary genre represented by Ernaux's *Journal du dehors*, *La Vie extérieure*, and *L'Usage de la photo* and Frankétienne's *Mots d'ailes en infini d'abime, Le Sphinx en feu d'énigmes* and *Ultravocal* before concluding with the analysis of a modern *polar* or detective novel by Toussaint, *La Réticence*.

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[227] L'écriture minimaliste ne se caractérise pas uniquement par la brièveté, la sobriété et la simplicité, mais surtout par l'absence de conjonctions causales à tous les niveaux du récit. Du fait de cette absence, l'arbitraire s'affiche comme le principe organisateur de la narration. Cela ne signifie pas que les récits sont dépourvus de structures, mais que l'organisation traditionnelle a été abandonnée par exemple au profit de structures récursives. Celles-ci sont caractéristiques de l'esthétique minimaliste.

Initial Conditions and Bifurcations: Narrative Instabilities and Self-Organization

As mentioned in Chapter One, Poincaré early in the twentieth century acknowledged the impossibility of knowing exactly all initial conditions of a non-linear, dynamic system. Simply, all the influences and forces in a situation cannot be detailed. Prigogine and Lorenz would later draw a similar conclusion. This holds important implications for contemporary literature. While an author will present narrative details, a fictional work can still take unexpected turns. Critics have suggested that a literary description cannot be exhaustive. Consequently, the reader will not know all of a character's "initial conditions." Therefore, chaos theory, specifically through bifurcation points, offers the possibility to investigate a previously unexplored consequence of an incomplete literary description.

Initial conditions lead to a series of bifurcation points, another tenet of Prigoginian chaos. These points exist on the margins, far from the equilibrium or center of a system, and indicate a point of instability in the system. As Weissert asserts,

> Bifurcation theory is one of the best-understood models of how ordered structures can arise from disorder. This model posits intricately bound local sites of randomness within larger patterns of order, which exemplifies the complementarity of chaos and order. Bifurcation theory is a local theory because it specifies the behavior of the system at local sites, but does not describe the system's behavior away from these regions. (234)

As such, this analysis will examine certain bifurcation points at moments of instability in the tutor texts and will analyze any movement from chaos to order or from chaos to more chaos at a certain location in the texts even if the trend at the bifurcation point will not indicate a tendency for the entire text.

Textual instabilities are also an important focal point for contemporary scholars in challenging assumed concepts in a text. As Kenneth Knoespel points out,

> Today even the casual observer of academic frontiers registers a shift from an unquestioned faith in the consistency of metaphysical systems and mathematical logic to a hypercritical expectation that perturbations may be detected in all systems of thought. Where critical inquiry previously assumed stability, it now explores instability and confronts complexity previously ignored or simply unseen. (100)

In literary theory, Joseph Grigely summarizes two popular focuses on textual instabilities: "Deconstruction has taught us about the author's (and reader's) instabilities and discontinuities vis-à-vis language; textual criticism has taught us about the instabilities and discontinuities of texts themselves" (90). This analysis, however, will look at the text itself in an attempt to define a third textual instability and characterize the instability or "unstable equilibrium" which is causing the bifurcation.

As Prigogine and Stengers have asserted, the location of bifurcation points and the reason for opting for more chaos or more order is completely random and cannot be known before a system evolves. Retrospectively, bifurcation points can be determined, but that does not ensure that the system will bifurcate at the same point again. Likewise, when an author writes a text, she cannot predetermine where instabilities may occur. However, examining textual details surrounding the bifurcation of completed texts may shed light on to situations that render a text "unstable" and thus assist in creating a definition for such instabilities.

Systemic fluctuations influence bifurcations in a scientific system as discussed in Chapter Two. Prigogine and Stengers offer a simple comparison of what defines a stable

and an unstable equilibrium when a fluctuation or perturbation is introduced around the system's equilibrium:

> Consider a pendulum […] originally at equilibrium [at rest] […] If a small perturbation is followed by a return to equilibrium this system represents a stable equilibrium. In contrast, if we put a pencil on its head, the smallest perturbation will cause it to fall to the left or right, giving us a model of unstable equilibrium. (*The End of Certainty* 30)

Since the pendulum returns to its initial center it is considered to have a stable equilibrium and it is a reversible system. The pencil, however, will not return to standing on its head on its own and is thus considered to have an unstable equilibrium as it cannot be reversed, or is irreversible, to its initial state. Likewise, this investigation will seek to depict the small perturbations that cause the tutor texts to "bifurcate" in an effort to better understand the texts and their instabilities. Specifically, this analysis posits that identity, "stuttering" to a lesser degree, and the novel as a genre will serve as a point of instability in modern fiction.

Diaristic Centers

Ernaux focuses on places which exist in the margins[228] in *Journal* and *La Vie*: the R.E.R and the supermarket for example. Ernaux insists on transcribing scenes from places taken as ordinary because

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[228] The notion of margin, center, and locality are essential elements of identity in postcolonial and subaltern studies as well. Indeed undertones of chaos and order pervade the binary metaphors from these domains such as colonizer/colonized, enlightened/ignorant, civilized/savage, men/women, and West/East. Homi Bhaba's third space and notion of hybridity certainly offer an alternative to this binary relationship. Both postcolonial studies and Prigoginian chaos theory attempt to re-center the universe from the margins. Prigoginian chaos goes a step further however and actually affirms the complementary relationship between chaos and order: at bifurcation points, fluctuations or dissipative structures force the system to *randomly* choose between evolving to an ordered system or to remain a chaotic one. Consequently, chaos can lead to order or to more chaos in an interminable feedback loop. Therefore, bifurcation points offer subaltern and postcolonial studies a new lens through which to analyze the above binary relationships. No

> There is no hierarchy in the experiences we have of the world […] The sensation and reflection that places or objects inspire are independent of their cultural value, and a hypermarket offers as much sense and human truth as a concert hall. (*Journal* 9)[229]

This is where she proposes most people exist: on the traditional fringe. This fringe however *is* their "center."   "Out there" on the fringe are chaotic intrusions, instabilities and encounters: life in essence.   Viewed through the notion of bifurcation points, Ernaux's text can be considered as a chaotic one but also one which accurately captures the natural chaotic nature of life. A diary is usually centered on a person's life. Ernaux's diaries, however, turn the focus from a traditional center of "self" to one of the marginal "other."   Immediately she challenges the notion of center and margin in the chosen content of her 'exterior' diary. It is at places far from center that Prigogine and Stengers suggest that an event will reach a bifurcation point and will become unstable or chaotic, then choose a deterministic (stable) route, or continue to be unstable until it chooses a stable route.

The concert hall which hosts repertoires from Bach to Wagner is the usual "center" of high culture and the "supermarket" is usually far from this center as a place of "higher" truth in who we are.   In both *Journal* and *La Vie* Ernaux references the poor, young people, old people, mothers, babies, and foreigners, all who do not constitute anything extraordinary in society but who represent real life as opposed to movie stars, prominent political figures or top athletes. Paradoxically, Ernaux learns more about life in the ordinary world than at its "assumed" center: conference halls, galas, the upper

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longer do texts need to be examined through an either/or relationship but through one in which both chaos and order play complementary roles.

[229] Il n'y a pas d'hiérarchie dans les expériences que nous avons du monde […] La sensation et la réflexion que suscitent les lieux ou les objets sont indépendantes de leur valeur culturelle, et l'hypermarché offre autant de sens et de vérité humaine que la salle de concert.

class, and 'mainstream politics'. In fact, she finds them void of sense as she states in *La Vie*: "Once again, the media legitimized propositions, however absurd, from an authorized voice. I hated it. (This is why I am writing these lines)" (87).[230] She explicitly chooses the "margin" from which to write; resultantly, bifurcations occur.

Two levels of organization exist in Ernaux's texts. First, for the diary, the writer will organize the entries following the Arrow of Time. On another level, the entries in these works are brief, fragmented, and unrelated, offering no clear cause and effect. In essence the entries represent chance encounters or bifurcation points between the narrator and the outside world. Prigogine and Stengers would agree that the causes of these encounters are invisible as turning back the clock will not reveal their origin. The system self-organizes, but only in terms of probabilities. In Ernaux's works, these choices and "self-organization" can be seen as people's reactions to certain situations.

For example, in *La Vie*, Ernaux describes a scene in the grocery store where "un type" (a guy) is complaining loudly about the customers who pay by check or credit card but not by cash. She notes the customers' response: "Like for the beggars in the metro, folks look elsewhere" (21).[231] The everyday person, amidst all these chance daily encounters, "self-organizes" a response to certain unstable "events" or bifurcation points which creates an element of identity. A person is usually disregarded who vocalizes a "truth" which is known by others but often not enunciated. Ernaux's description of the scene testifies to the fact that most people do not want to disrupt the "polite" flow of mainstream society and allow "marginal" people and events to matter. Ernaux, however, brings to the center these marginal events. As a result, chaos and instability ensue and

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[230] Une fois de plus, le media rendait légitimes les propositions, pourtant absurdes, d'une voix autorisée. J'avais la haine (c'est pourquoi j'écris ces lignes.).
[231] Comme pour la manche dans le métro, les gens regardent ailleurs.

thus a bifurcation in response must occur. People must choose either to respond with chaos or with order. In this instance, as Ernaux surmises, people choose a previously ordered response that suits their purpose.

In *Journal*, Ernaux notes the responses of the passengers on the R.E.R. to two beggars who enter the train and begin a loud dialogue between the two of them: "As opposed to the theatre, the spectators of this scene avoid looking at the actors, act as if they don't hear anything. Bothered by life that is a spectacle, and not the inverse" (104-105).[232] In this case, the audience "self-organizes" a response of disregard at this bifurcation or point of instability according to the situation. Not all R.E.R. passengers may necessarily respond this same way again, but in this instance, at this local site, this was their reaction. This would also seem to be a marginal event in most passengers' lives that most likely will influence very little their future. However, Ernaux intentionally brings this scene from the margins to the center of "truthful" life. Beggars do exist and cannot be ignored. Life is complicated, chaotic, and in these two previous examples, verbally "noisy" and unstable.

She explicitly compares the "scene" in the metro, a transitory place people use to get to a final destination, to a "scene" in the theatre, a place which is often a "prestigious" *destination* and which portrays fiction but often offers "truth." Both a theatre and a metro can offer moments of chaos: failed electricity or loss of tickets in either case. The metro, as stated above, simply offers a marginal *lieu* where more possibilities for uncertainty exist. The passengers consider this disruption on the metro as an unstable point in their journey. Ernaux's "extimate" diary emphasizes the prevalence of these marginal events

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[232] A la différence du théâtre, les spectateurs de cette scène évitent de regarder les acteurs, font comme s'ils n'entendaient rien. Gênés par la vie qui se donne en spectacle, et non l'inverse.

and the inevitable chaos that surrounds them. Indeed, Raylene Ramsey affirms the relationship between time, chaos and autobiography in works from the late twentieth century:

> Time, in the new autobiographical fictions […] is at once the vertigo of libidinal obsession and new statistical scientific orders such as those emerging from the very unpredictability of the turbulent flows, the self-similar fractal shapes and the sensitive dependency on initial conditions that chaos theory models as it incorporates both randomness and order. (40)

Initial conditions (perhaps the mood or schedule of a character) cannot be known precisely but only approximately, and will condition an event at a certain bifurcation point (encounters in the metro for example). The result will either be chaos or order which will condition more bifurcation points (encounters).

As discussed in Chapter Two, *L'Usage de la photo* is another of Ernaux's explorations in autobiography. This work is also an investigation into a modern, personal diary. Whereas *Journal* and *La Vie* are more "extimate" diaries, this one is based on personal photographs of her love-making scenes with Marc Marie. However, she continues to challenge traditional diaristic conceptions in that both she and Marc comment, independently of the other, on the photographs. Usually, the comments are written a time after the event so unlike a traditional diary that records events daily, these entries are necessarily delayed until the pictures are developed. The photographs depict the clothes and objects left strewn about where they were tossed during their love making. Clothing in the pictures includes pants, skirts, underwear, belts, shirts and shoes. These photographs illustrate intimate objects to both Ernaux and Marie in dramatic contrast to the public scenes in *Journal* and *La Vie*. However, pertinent to this analysis, is

the fact that Ernaux and Marie chose to have at the center of the work scenes that are usually marginal or go unnoticed in works describing passionate love encounters. The content, in traditional narratives, is usually focused on the emotions and actions of the characters and not on where their clothes were randomly tossed as a result of a passionate *rencontre*. These mundane, "marginal" objects of clothing become the center of the work. Consequently, it is at these margins, now brought to the center, that the reader encounters Prigoginian bifurcations and instabilities towards order or to continued chaos.

The pattern of objects themselves is chaotic as Ernaux describes: "elements, sweaters, stockings, shoes, had organized themselves according to unknown laws, movements and gestures that we had forgotten, about which we were not conscious" (13).[233] The reaction of Ernaux and Marie to the photos differs. Chapter Two discusses their different approaches to describing each photograph. Ernaux generally tries to offer a physical description of each photo before moving on to discuss memories surrounding the photograph or memories of other events which the photograph inspires. Marie's approach is more varied. He fluctuates between giving an immediate physical description of the photo and offering his memories surrounding the photo and incorporating details from the photo with this memory. In both cases, their attempt to verbalize a visual image is an effort to bring order to chaos. As such, their verbal reflection on the photo serves as a bifurcation to a chaotic situation.

In these instances, Ernaux and Marie seem to follow a Prigoginian pattern of self-organization of order out of chaos. However, iterations of chaos occur as well, also

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[233] les éléments, pulls, bas, chaussures, s'étaient organisés selon des lois inconnues, des mouvements et des gestes qu'on avait oubliés, dont on n'avait pas eu conscience.

emulating a pattern of continued chaos at the bifurcation. Ernaux's and Marie's reflections on the photos often wander from the event itself to another one. She admits

> Never could I have foreseen the text that we were in the process of writing. It is really from life that it came. Reciprocally, the writing under the photos, in multiple fragments-which will be themselves broken by those still unknown at this time, of M. – offer me, among other things, the opportunity of *putting this reality into a minimalist narrative*. (original emphasis; 76)[234]

The photographs offer the initial conditions for identity exploration. Ernaux's and Marie's verbal responses can be characterized as points of instability as not only will they differ, but they will also focus on different aspects of the photograph. Even with their written responses, the notion of identity found in the photographs never ceases to evolve. This is exactly the effect Ernaux desires for the reader. She states: "The highest degree of reality, however, will only be achieved if these written photos transform into other scenes in the reader's memory or imagination" (17).[235] The bifurcations will continue with the reader.

This notion of writing, but also literature at large, recalls Frankétienne's literary movement *Spiralisme* where the reader's continued participation is as important as the author's transcriptions. As such, the continued existence of Ernaux's diary through the reader makes the outcome equally unpredictable allowing chaos to continue to exist. Identity thus serves as a point of instability within and exterior to these works. Identity

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[234]Jamais je n'aurais pu prévoir le texte que nous sommes en train d'écrire. C'est bien de la vie qu'il est venu. Réciproquement, l'écriture sous les photos, en multiples fragments – qui seront eux-mêmes brisés par ceux encore inconnus en ce moment, de M.- m'offre, entre autres choses, l'opportunité d'une *mise en récit minimale* de cette réalité.

[235] Le plus haut degré de la réalité, pourtant, ne sera atteint que si ces photos écrites se changent en d'autres scènes dans la mémoire ou l'imagination des lecteurs.

construction, therefore, is not restricted to the author's work within the text as the reader will have the possibility to discover her own identity outside of the text.

Viewing these verbal responses to visual images as bifurcations in a chaotic system allows the reader to consider the chaos which is innate to the modern diary. Pictures have not typically held a primary, physical position in the diary genre. Normally, pictures inspire emotions that the writer translates into words in the diary. Ernaux moves the pictures to the center of her diary, in contrast to the marginalization of narrative locations described earlier, in an effort to, as completely as possible, share with the reader her desire to capture the chaos of passion and desire. Words are presented in opposition to the pictures in a margin/center relationship.

Moreover, the photographs serve as the base of inspiration for the entries, underscoring the important role banal items play in passion. Thus, instead of viewing her photos as an exhibitionistic expression of passion which has been reduced to images of used lingerie, viewed through the lens of chaos, the reader can better appreciate the chaos of passion that Ernaux is trying to express in her work. Accordingly, Ernaux's and Marie's reactions do show tendencies of self-organization but also of continued chaos in a diaristic narrative as described in the Prigoginian model of the physical world.

Spiraling Repetitions

Mots d'ailes, as asserted above, can be considered as a chaotic combination of a modern diary and a self-portrait. Although Frankétienne classifies the work as a spiral, aspects of both of these traditional genres are found in the text. Within this chaotic text, the reader will discover textual fragments that repeat but are not necessarily exactly

similar. As discussed in the first part of this chapter, this repetition emulates Frankétienne's vision of a spiral as a work following the Arrow of Time. The spiral advances, returns slightly back on itself and then advances again. These repetitions found within the text can be seen as the text's return upon itself which offers new "initial conditions" for the future. Likewise this analysis posits that these repetitions serve as bifurcation points in the text, which are one aspect as defined in Prigoginian chaos as points of greatest instability in a chaotic system. Resultantly, the system can re-organize to a higher level of organization or continue a chaotic path until another bifurcation point arises. Deleuze also contributed to the redefinition of textual repetitions as Adrian Parr explains:

> [I]t should be noted that for Deleuze, repetition is not a matter of the same thing occurring over and over again. That is to say, repetition is connected to the power of difference in terms of a productive process that produces variation in and through every repetition […] To repeat is to begin again; to affirm the power of the new and the unforeseeable. (223)

While bifurcation points do represent the "new" and the "unforeseeable" levels of reorganization, they also fundamentally represent a point of instability in a system.

In Frankétienne's text, several patterns within each repetition exist. One pattern is that the words in the fragment are unchanged and are followed by different fragments. For example on pages 45 and 93 the reader finds the following phrase: "At the stutter of elliptical questions the dry echo of a silent ceasura."[236] However, the font and spatial arrangement of the fragment has been altered on the two pages. On page 45, the fragment is in bold italics with a return after "stutters" ("bégaiements"), "elliptical" ("elliptiques") and "dry" ("sec"). On page 93, however, the fragment is only in bold with one return

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[236] Aux bégaiements des questions elliptiques l'écho sec d'une césure silencieuse.

after "elliptical" ("elliptiques"). For Frankétienne, the visual aspect of the word becomes an important part of the text as discussed in Chapter Two. So, linguistically the fragment reorganizes. In the first instance, the fragment appears physically more poetic. In the second instance, the fragment appears physically more prosaic.

If the field of view of the fragment is expanded on the page, the reader notes two more repeated fragments on both pages: "The austerity of the angles on the flanc of the night smeared with massacres."[237] and " Flutterings and rustlings of fear ravaging some bodies without composure."[238] In this case, the first fragment retains the same spatial format with a return after the word "night ("nuit"). The font has changed from non-bolded to bolded and italicized. The second fragment is bolded in both instances, but is italicized on page 45 and not on page 93. Due to the change in italics, the fragment has a return in the middle of the word "ravaging" ("ravageant") in the first instance but after "fear" ("peur") in the second.

In addition, on page 93, another fragment has been grouped to the beginning of the "Austerity" ("L'austérité") fragment which is "Blindness of a shipwreck in divine voluptuousness."[239] This fragment is also bold and italicized like the fragment which follows. From this perspective, the reader notes the substance of these three fragments has also changed. On page 93, new information has been added to the middle of the fragment. As such, not only has the form of the three fragments changed, but new information has been added. Consequently, around this point of instability in the text, a bifurcation has occurred and the text has re-organized itself. The reader must decide with

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[237] L'austérité des angles au flanc de la nuit barbouillée de massacres.
[238] Frôlements et battements de la peur ravageant des corps sans aplomb.
[239] Cécité d'un naufrage en divine volupté" with a return after "naufrage.

her continued reading whether this new information stabilizes or further destabilizes the text.

As with chaotic systems, why a system bifurcates at a certain point is unknown to the reader or author, at least prospectively. What is known is that it represents a point of instability for the system. One possible explanation for this point is found in the word "bégaiement" or stutter. While in this passage Frankétienne does not use language to demonstrate a physical stutter, he does call it by name. Deleuze does say: "When a language is so strained that it starts to stutter, or to murmur or stammer…then language in its entirety reaches the limit that marks it outside and makes it confront silence" (*He Stuttered* 113). This straining could indicate a textual instability and consequently a bifurcation point. The result could either be continued stuttering, silence, or standard language. Frankétienne makes references to stuttering in this text, as with the citation from pages 45 and 93. Rejecting silence and speaking out against tyranny is an essential element in all Frankétienne's works. As such, it is natural that some bifurcation points would center on stuttering and its confrontation of silence as a result of Frankétienne organizing this system in terms of chaos and order. Stuttering can be seen as an instability in speech and accordingly, can also be viewed as an unstable textual point in which to change directions.

In the citations on page 45 and 93, the stutters serve as a "dry echo" in the "silent break." Although the image is one of an unproductive attempt to break the tyrannical silence which has enshrined Haiti, still the stutter represents a challenge to the silence. As with speaking, some stutters are more meaningful than others but all are attempts at communication. Frankétienne challenges silence with sounds and voices as discussed

above and in Chapter Two. Such repetitions, different from repetitions within the diegetic world, can serve as a way for the author to create instabilities in the text. In the final analysis, stuttering can also be an instrument and metaphor for creating instability in a text.

Other examples of spiraling repetitions include texts that are somewhat altered when repeated and focus on identity. Such patterns can be found in the dialogue first presented on page 95 and repeated on page 161:

> -You have a rather peninsular memory, shredded in infinite, scattered fragments which float in a strange suspension of fog and haze.
> -Deep down, what have I become?
> -Neither time nor space exists for you.
> -I don't have any more boundaries.
> -You made a mistake and are ensheathed in the air of *deconstrombrance* and non-being.
> -I'm getting close to the crux of the first essences.
> -It's rather the inverse journey to the ultimate border of life.
> -What?
> -You became a prisoner in the middle of zero of death.[240]

However, between the fifth and sixth line of the dialogue on page 161, the following fragment is interjected: "The crocodiles, the caimans and the snakes have invaded the traumatized/petrified/*spantufiée/*terrified/ruined city" (161).[241] This interjection provides new information and introduces a new level of organization for the dialogue. In this instance in the text, one of the character's identities has become unstable thus offering the

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[240] -Tu as plutôt une mémoire péninsulaire, déchiquetée avec d'infinis fragments épars qui flottent dans une étrange suspension de brouillard et de brume. -Au fond que suis-je devenu ? –Ni le temps ni l'espace n'existent pour toi. –Je n'ai plus de repères. –Tu t'es fourvoyé et enfouraillé dans l'air de la déconstombrance et du non-être.-Je m'approche ainsi du nœud des essences premières. -C'est plutôt le parcours inverse à l'ultime frontière de la vie. -Quoi ? -Tu es devenu prisonnier au mitan du zéro de la mort.

[241] Les crocodiles, le caïmans et les serpents ont envahi la ville traumatisée/pétrifiée/spantufiée/terrifiée/anéantie."

possibility for recreation and change. In the second iteration of the dialogue, not only the city but also the character's identity has been shattered. This interjection serves to propagate the chaotic image of life surrounding this character. Likewise, it offers more description and details to the character's situation although the details only add more chaos to the preexisting condition.

A traditional bifurcation pattern as supported by Prigogine is one of a forked path. In each example of the fragment, the text moves in a different direction following the dialogue. As such, the future of the text remains random and illustrates the role chance plays in the future as the reader decides which fragment to read next. There are other examples (pages 72 and 139) where, in a later version, part of the fragment has been omitted. Finally, there are examples (pages 249 and 310) where the fragment has been completely reshuffled such that the lines have been reordered. In each case, the reader notices a new level of organization. In all these instances the font has been altered from one version to the next, offering another aspect at the formal level of "(re)organization" in the fragment. The fact that these textual repetitions do not constitute a majority of the text reinforces the notion that bifurcations happen around points of instability far from the stable equilibrium of a text. In Frankétienne's text, two textual instabilities, metaphorical and substantive, have been discussed: stuttering and identity. More instabilities would surely be found in a closer examination of the other fragment iterations.

Frankétienne also offers instances of such repetition in other texts such as his poetic spiral work *Le Sphinx en feu d'énigmes* (*The Sphinx in a fire of enigmas*) where one phrase is repeated and modified three times. The base fragment is "with odors of gas

of coffee of cocoa of whisky of cocaine of metal in a fusion of bullets of rottenness and of blood" (85).[242] This phrase is repeated on page 88 and pages 93-94. In each of the subsequent fragments, a few more words are added – "of molasses of tar of mothballs of sperm"[243] – and included in the following fragments. In the final fragment, even more words supplement the phrase, offering an example of how (new) initial conditions can lead to different patterns. This imitates not only Frankétienne's conception of a spiral, but also Overton's metaphor of a spiral as a chambered nautilus and Piaget's assimilation/accommodation model.[244]

In *Le Sphinx* most pages are filled with short poems. However, beginning on page 84, the next eleven pages are broken down only into four sentences, which fill the entire page in *Corps sans repères.* These repeated fragments can be viewed as the point of instability for each sentence as they are placed at the end of three out of the four "sentences." The following sentence initiates a new subject each time. These fragments can also be viewed as points of instability in terms of generic affiliation for moving a poetic text into a more prosaic form. The text can be seen as a dynamic, continuous work, although chaotic, that exhibits "bifurcations," "instabilities," and new levels of organization. This instability also underscores the smells surrounding the chaos and confusion in Haiti. Smells are often familiar and comforting but in these examples the usual domestic smells of coffee and molasses are intermingled with cocaine, blood, bullets and tar, reinforcing local instability not only at a generic level but also at a semantic level at this point in the text. In the final analysis, textual instabilities affect the

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[242] à odeurs de pétrole de café de cacao de whisky de cocaïne de métaux en fusion de mitraille de pourritures et de sang.

[243] de mélasse de goudron de naphtaline de sperme.

[244] See Chapter One ("Differences and Repetition") for a detailed discussion of Overton and Piaget.

form and the content, the form by moving from poetry to prose, and the content by emphasizing the chaos on a sensory level and underlining its poetic sensibilities within a prose format.

Ultravocal offers a final example of these bifurcations with the fragment: "Pure blood. Blood for. Blood against. Vivacious blood. Blood mixes with the earth" (225).[245] This fragment also appears on pages 226 and 227. In the second repetition, a single question is added at the end: "What innovative planet will flourish in this seed of fire?" (225).[246] In the third repetition, the question added on page 225 is kept and a new question is added: "What brand new planet will emerge from this fake garden of red roses?" (226).[247] In each instance, the text becomes reorganized in a new way. The French adjectives for "new" – "nouvelle" and "neuve" - and their placement with respect to the noun "planet" offer some insight into the reorganization happening in the text. The common placement of *nouvelle* and *neuve* with regard to the noun *planète* would have been: *nouvelle planète* and *planète neuve*. Frankétienne has inverted their typical use in his text and subsequently offers one formal form of instability.

Secondly, in the phrase using "planète nouvelle", the narrator asks about what sort of "unique or innovative" planet could flourish under the named conditions. In that case, the adjective "nouvelle" can either precede or follow the noun. Had it preceded the noun, the meaning would have been "new" in the sense of not 'brand new' but in the sense of 'new to the situation' suggesting a previous history. However, as the adjective follows the noun, the sense conveyed is more "unique" or "original" and indicates a planet that has changed under certain perturbations to acquire a new form. In the second instance a

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[245] Sang pur. Sang pour. Sang contre. Sang vif. Le sang se mêle à la terre.
[246] Quelle planète nouvelle fleurira de cette semence de feu?
[247] Quelle neuve planète surgira de ce faux jardin de roses rouges?

"neuve" planet essentially means a brand new planet, never before seen. The careful reader will note the evolution from an original creation flourishing in a "seed of fire" to one without a previous history. Identity also enters into question here as well if it is equated with the planet. Frankétienne first questions whether identity can be remade into a unique entity. Then, he questions whether a brand new identity can be born under these false pretenses. In all instances, identity is a point of instability in Frankétienne's works. As such, a new identity is created. However, Frankétienne challenges the notion of what "new" means" based on initial conditions: brand new with no previous history or previously created out of something.

These iterations also build on each other like the fragments in *Le Sphinx* studied above demonstrating how initial conditions can generate new information. The instability in the above phrases from *Ultravocal* also centers on identity through blood. In essence, blood can represent identity, a point of instability also seen earlier in *Mots d'ailes*. Bloodshed in Haiti during the rule of the Duvaliers became common place. Blood also became a symbol of loyalty, whether it was shed in favor of or against the government. Inevitably, though, loyal or rebel blood mixes with the Earth suggesting a common end for all humans. The notion of blood is usually associated with a primary marker of an individual's identity. However, Frankétienne uses blood as a marker of death as well as a symbol for the oppressed Haitian community. In this case, identity for the collective is neither stable nor durable but momentary. This characteristic is reinforced in the short, staccato phrases in the fragment. Frankétienne elaborates on identity's transitory character by adding the questions in the fragment iterations that follow. Instead of simply using repetitions as mere poetic devices, bifurcations provide reconsideration of

the organization of the text as a purposeful device which brings new order to its structure while allowing chaos to continue. In this instance, blood and ultimately identity is a point of destabilization in Frankétienne's text without blood being now associated with death and the collective identity.

In the final analysis, these examples serve to illustrate the form of a spiral: a movement which advances, retreats but then advances again in a different direction. The reader experiences the first iteration of the fragment, then a second but with perhaps some modification or none, followed by a new direction in the text. Secondly, viewed through the optic of bifurcations, seemingly random or poetic repetitions can give additional meaning to the text. Like Ernaux's examples of people who "self-organize" responses to moments of instability in life, Frankétienne is self-organizing his thoughts in reaction to the world. This process is however still chaotic.

Equally, as a spiral work is not necessarily meant to be read in a linear fashion, and, as with Ernaux's wish in *L'Usage de la photo*, maintain the reader in a state of uncertainty, so does the Spiralist reader have a choice as to the order in which she reads the text and as to the texts that follow these points of instabilities. Consequently, her "new level or order" (or chaos!) will vary from any other reader. Ultimately, such altered repetitions can productively be studied for the new level of organization or chaos they may bring to a contemporary text. No longer should repetitions, slightly modified or not, only be viewed as a poetic device for emphasis or magnification. Likewise, the lens of bifurcations allows repetitions, and the Deleuzian differences they produce, to reveal textual instabilities and the associated meaning and relevance derived therein. Identity is a prominent point of instability in Frankétienne, and stuttering to a lesser degree. As a

result, his choice of formal structure is more than a search for an original formal arrangement; it is one that reflects contemporary chaos.

Polar Differences

Toussaint's work *La Réticence* (*Reticence*) offers another interesting study in the role of bifurcations and instabilities in contemporary fiction. Charles J. Rzepka, in his book *Detective Fiction,* characterizes the mystery type of detective story as one which

> usually contains a detective of some kind, an unsolved mystery (not always technically a crime), and an investigation by which the mystery is eventually solved. There is another component […] the so-called 'puzzle element': the presentation of the mystery as an ongoing problem for the reader to solve. (10)

Toussaint presents just such a story in *La Réticence*: a story where a man travels to Sasuelo with this toddler to visit his friends, the Biaggis. Over the course of the novel, the narrator is convinced that a dead, black cat he saw floating in the port on his arrival is first linked to the fact that the Biaggis have disappeared and then to the fact that Biaggi is in fact secretly stalking him in Sasuelo. The narrator serves as the "detective" Rzepka identifies in his characterization and the mystery involves the Biaggis and the black cat. The story is only told from the narrator's perspective and as such, the "information" or "evidence" in the story is limited to his point of view.

As discussed in Chapter One, there has been a long-standing relationship between literature and science in France, as exemplified by Balzac and Zola in the nineteenth century, for instance, and their references to contemporary theory in biology, thermodynamics, and physiology. As a result of the growing influence science exerted regarding its ability to establish "the truth," science also began to influence detective

fiction. Regis Messac, in his work *Le "Detective Novel" et la Pensée Scientifique,* defines a detective novel or a *roman policier* (*polar*) from the 19th century as "a novel or a short story, like a narrative dedicated most of all to the methodical and gradual discovery, by rational means, of exact circumstances of a mysterious event"(9). However, in *Cultures en conflit*, Bayle questions the continued conflicted relationship between the *roman policier* and science in the twentieth century noting that

> The reader […] contemplates the "facts" across eyeglasses that the author puts on his nose, according to the angle of vision that he imposes on the reader. To do a science experiment, [however] this supposes that one controls all the conditions, or, at least, those that one believes to be important. (191)[248]

This analysis suggests that, as with chaos theory, uncertainty is an element that can reconcile both: all the initial conditions, even important ones, may not be known. In fact, Bayle points out that it is a dissimulation of facts that an author of detective fiction will force the reader to sort through in search for the solution to the mystery (191). Although traditionally the *polar's* investigative process came to be based on the scientific method, the introduction of paranoia and doubt has pervaded recent detective stories. Toussaint's reticent *polar* illustrates influences of paranoia and contemporary scientific theory, specifically the role of uncertainty on the detective's investigation. Consequently, Toussaint's work offers an example of a *polar* which does not privilege the exactness of the scientific method, but underscores the importance of irreversibility and chaotic iterations.

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[248] Le lecteur […] contemple les "faits" à travers les lunettes qu'il lui met sur le nez, selon l'angle de vision qu'il lui impose. Faire une expérience scientifique, cela suppose qu'on contrôle toutes les conditions, ou, du moins, celles qu'on tient pour importantes.

The title sets the tone for the entire work. The narrator is reticent about most action: he hesitates to visit the Biaggis although he has written them a letter explaining that he would like to see them: "It was in some way to see the Biaggis that I came to Sasuelo, but, up to now, held back by a *mysterious apprehension*, I had delayed the moment when I would visit them, avoiding the vicinity of their house when I walked in town" (16).[249] Immediately, the narrator creates a sense of mystery about his visit to Sasuelo. The narrator is in fact so hesitant about visiting the Biaggis that when he does go to their house, he stands outside their gates and ends up taking their mail, which included his letter to them. He states: "I could have easily left the letter in the box, but maybe I wasn't interested, it seemed to me, more now in any case-, to leave a letter there which announced my arrival in Sasuelo" (19).[250] The narrator never reveals why he is reticent about visiting the Biaggis: authorial retention of information is a conventional method to start building a sense of mystery. However, his intention not to have them know of his arrival is strong as he goes so far as to take his letter out of their mailbox before they have a chance to read it. The narrator does acknowledge the strong influence of reticence on his life, "A reticence that I have never succeeded in conquering in reality, and which, far from having become more supple with time, has only in truth increased each day to the point of clotting" (112-113).[251] Like time, the narrator's reticence continues to advance and cannot be reversed.

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[249] C'était en quelque sorte pour voir les Biaggi que je m'étais rendu à Sasuelo, mais, jusqu'à présent, retenu par *une appréhension mystérieuse*, j'avais toujours retardé le moment de leur rendre visite, évitant les parages de leur maison quand je me promenais dans le village. [My emphasis]

[250] J'aurais très bien pu la laisser dans la boite, mais je n'avais peut-être pas intérêt, me semble-t-il - plus maintenant en tout cas -, à laisser là une lettre dans laquelle était annoncée mon arrivée à Sasuelo.

[251] [une] réticence que je n'avais toujours pas réussi à vaincre en réalité, et qui, loin de s'être assouplie avec le temps, n'avait fait en vérité que s'accroitre de jour en jour au point de se figer tout à fait.

The presence of a reticent character in general contradicts the definition of a traditional *polar* as usually the detective will actively seek the solution to the mystery however confusing or incoherent the evidence may be. In this way, Toussaint's *polar* can be seen to be more influenced by the interest the New Novelists demonstrated for the *roman policier,* particularly Robbe-Grillet. His novel, *Souvenirs du triangle d'or*, is analyzed in Mullen and O'Beirn's *Crime scenes: Detective Narratives in European Cultures Since 1945*: "After a few pages [in *Souvenirs*], the reader relinquishes any possibility of establishing a linear and causal construction of events. The more the 'narrator' attempts to control the narrative, the more the narration escapes 'his' grasp, and spirals off in implausible directions" (68). They also note in Robbe-Grillet's fiction that "there is no definitive elucidation or 'tying together' of loose ends in the classic fashion. Thus the narrative escapes closure" (65). Toussaint's novel does come to closure, but one which is not typical for a *polar*. In all actuality, there has been no murder of either Biaggi or the cat.

In Toussaint's *polar*, the irony lies in the fact that is the narrator's reticence to visit the Biaggis that drives him to believe that Mr. Biaggi is in fact stalking him. His paranoia becomes so intense that his reticence all but disappears when he is trying to catch Biaggi stalking him. Nevertheless it is this reticence, this unexplainable initial condition, that sets the chaotic system in motion and sends the narrator on a quest to link Biaggi's absence with a dead, black cat he saw floating in the port on his first day.

This exaggerated reality leads the narrator to repetitions and bifurcations, such as the narrator's encounter with the floating, dead cat in the port. The first repetition is the

narrator's encounter with the floating, dead cat in the port of Sasuelo. The novel opens with the narrator remarking:

> This morning there was a dead cat in the port, a black cat that was floating on the surface of the water straight and stiff, and he floated slowly next to a dinghy. Outside of its mouth hung the head of a decomposed fish from which came a fishing line broken from a length of about three or four centimeters. (11)[252]

This cat becomes the *polar* requisite death that the narrator will try to solve before Biaggi's. As such, this instant serves as a point of instability in the text and will lead to new levels of order or continued chaos. Whenever the narrator references the cat, he always repeats the words "le chat qui flottait" ("the cat who was floating") while adding details each time "A *black* cat which floated" (11), "the cadaver of the cat which was always found in the port, which floated in a gray water" (45), "the dead cat which floated" (48), and "[the] cadaver of the cat in the port […] the body upside down in the gray water which was floating." (97).[253] As seen in *Mots d'ailes*, more information is added that can either lead to a new level of order or to continued chaos. In this instance, the additional information does not resolve the cat's death and only leads to more paranoia for the narrator.

Unlike a traditional detective novel, the "body" has not been claimed by the detective for further analysis. He leaves the cat, almost reticently, in the port to drift with the current while he tries to solve the mystery. Consequently, the "evidence" will change offering more possibilities for instabilities and bifurcations. Eventually, the cat disappears

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[252] Ce matin, il y avait un chat mort dans le port, un chat noir qui flottait à la surface de l'eau, il était droit et raide, et il dérivait lentement le long d'une barque. Hors de sa gueule pendait une tête de poisson décomposée de laquelle dépassait un fil de pêche cassé d'une longueur de trois ou quatre centimètres.

[253] Un chat *noir* qui flottait" (11), "Le *cadavre du* chat *se trouvait toujours dans le port*, qui flottait *dans une eau grise*" (45), "le chat *mort* qui flottait" (48), and *"[le] cadavre* du chat *dans le port* […] *le corps renversé dans l'eau grise* qui flottait" (97). [My emphasis]

altogether and the narrator upon not seeing the cat's body in the port describes this moment as a return to initial conditions:

> we had, in a way, returned to the initial situation now, there was no longer the cat's cadaver in the port and the letters that I had taken a few days earlier from the Biaggi's mailbox were there once again. We had returned to the initial situation, yes, or nearly to the letter, I told myself, a letter which had fallen into the port last night and the most likely the Biaggis would never receive because the current had carried it away, or a breaker had engulfed it forever. (102)[254]

Some changes have been made though to initial conditions which cannot be exactly regained as the narrator acknowledges emulating chaos theory. Typically, evidence in a detective novel is not altered: only more information is added. However, in this novel, the evidence does change. The physical appearance of the cat undergoes changes, ultimately the 'body' disappears, the Biaggis' letters are returned– except one that has been lost in the port and replaces the cat's body. Time is not reversible and the narrator cannot recreate the exact initial conditions of his arrival at Sasuelo. He claims

> And it appeared to me in a paradoxical manner that since we had returned to the initial situation and that everything presented itself again for me like the first day, I could again imagine going to see the Biaggis now, maybe not right away […] but a bit later in the evening, just to let them know I was here. (103)[255]

As bifurcations occur at points of instability in a system far from a system's stable center, in this instance, the dead cat poses a point of instability for the narrator who does

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[254] nous étions en quelque sorte revenus à la situation initiale maintenant, il n'y avait plus de cadavre dans le port et les lettres que j'avais prises quelques jours plus tôt dans la boite aux lettres des Biaggi s'y trouvaient de nouveau. Nous étions revenus à la situation initiale oui, à une lettre près, me disais-je, une lettre qui était tombée dans le port la nuit dernière et que les Biaggi ne recevraient sans doute jamais car le courant avait dû l'emporter au large maintenant, ou quelque déferlante avait dû l'engloutir à jamais.

[255] Et il m'apparut alors de manière paradoxale que puisque nous étions ainsi revenus à la situation initiale et que tout se présentait de nouveau pour moi comme au premier jour, je pouvais de nouveau envisager d'aller voir les Biaggi maintenant, peut-être pas tout de suite […] mais un peu plus tard dans la soirée, juste pour leur signaler ma présence.

not remove the cat and leaves it in the water, as if to invite reticence to guide the future of his relationship with the cat as he does with most of his relationships. The cat represents death's inevitability, and the narrator's reticent quest to discover how the cat died is a metaphor for the narrator's desire to slow time like writing, another technique Ernaux and Toussaint have used to slow time's passage. Dissipative systems and repetition serve as a temporary mechanism to slow time as examined in Chapter Two. Viewed through the lens of bifurcations, death becomes the point of instability for the system.

At first, the narrator believes the cat has died after jumping in after a fish. Later he will adjust his estimate and hypothesize that it was Biaggi who had murdered the cat: "And it's exactly the presence of this fragment of fishing line in his mouth which made me think, a bit later in the evening – at the time I had simply examined it distractedly, this fragment of fishing line – that the cat had been assassinated" (37).[256] At this point in the story, after having visited the Biaggi mansion, finding no one there but seeing an old, gray Mercedes parked in the driveway, the narrator becomes convinced that Biaggi is in town as the Mercedes appears later parked in the town square. Throughout, the narrator has yet to see Biaggi and then inexplicably posits the relationship between Biaggi being in town and the cat's murder. As is typical to a polar, he vocalizes questions a detective would ask regarding a murder and he subsequently draws his conclusion:

> Really, how to explain the presence of this fragment of fishing line in its mouth? How to explain that a fishing line as hard and resistant could have been broken by the animal itself? […] Why, especially, the end of the fishing line, was it cleanly cut, as if it had been cut by a knife, if not only

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[256] Et c'est précisément la présence de ce fragment de fil de pêche dans sa gueule qui me fit penser, un peu plus tard dans la soirée – sur le moment, je l'avais simplement examiné distraitement, ce fragment de fil de pêche – que le chat avait été assassiné.

because once the cat was trapped that Biaggi had set last night – because Biaggi was in the town, I was convinced of it now. (37-38)[257]

The next time he encounters the cat in the port he realizes that the fishing line with the fish head on it that used to hang from the cat's mouth is missing, "As if someone, during the night, had come to the port to make them disappear" (45).[258] When he later returns to the port, he uses approximately the language used on page 45, but this time adding some more information, similar to the repetitive process used by Frankétienne in *Mots d'ailes*. The narrator reflects:

> I don't remember ever having seen the mouth of a cat open so wide, and this intrigued me even more since, if, as I thought, someone had come to the port last night to make the fragment of fishing line disappear from the animal's mouth, he must have approached the cadaver with a dinghy, and, having accosted it under the same light of the moon as that of this night, the same exactly, with the same black clouds which glided across the sky, he had to bend over carefully outside the boat to get the animal's body […] in order to snap the line which hung from its mouth, such that now the mouth of the cat should show different traces of mutilation. (48-49)[259]

Instead of someone using a knife to cut the line, now the perpetrator has snapped the line with his or her hand. At this point of instability, the narrator has changed his conclusions. However, this information does not seem to bring him closer to actually finding out what

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[257] Comment en effet expliquer la présence de ce fragment de fil de pêche dans sa gueule ? Comment expliquer qu'un fil de pêche aussi dur et résistant ait pu être rompu par l'animal lui-même ? […] Pourquoi, surtout, l'extrémité du fil était-elle coupée aussi proprement, comme sectionnée net par une lame, si ce n'est parce qu'une fois le chat pris au piège que Biaggi lui avait tendu la nuit dernière – car Biaggi se trouvait dans le village, j'en avais la conviction maintenant.

[258] comme si quelqu'un, pendant la nuit, s'était rendu dans le port pour les faire disparaître.

[259] Je ne me souvenais pas d'avoir jamais vu la gueule du chat ainsi ouverte, et cela m'intriguait d'autant plus que, si, comme je le pensais, *quelqu'un s'était rendu dans le port la nuit dernière pour faire disparaître le fragment de fil de pêche de la gueule de l'animal,* il avait dû approcher le cadavre avec une barque, et, l'ayant accoste sous le même clair de lune que celui de cette nuit, le même exactement, avec les mêmes nuages noirs qui glissaient dans le ciel, il avait dû se pencher prudemment hors de l'embarcation pour s'emparer du corps de l'animal […] pour tirer d'un coup sec sur le fil qui pendait hors de sa gueule, de sorte que maintenant la bouche du chat devait présenter différentes traces de mutilation. [My emphasis]

happened to the cat or eventually, stopping death. Thus, chaos continues. It is only at the end of the story that the narrator discovers the truth about the cat: a fisherman was preparing his lines with fish heads when the black cat jumped into his boat going for the fish heads, and got inextricably tied up with the fishing line. The fisherman simply cut the line allowing the cat to jump from the boat in panic into the water where it very quickly drowned (156-157). The narrator incorrectly built a conspiracy theory around his reticence to visit Biaggi. As a result, the initial conditions led to instabilities and bifurcations in the narrator's quest to solve the mystery. Toussaint's reticent *polar*, a non-linear system far from its equilibrium, renders itself vulnerable to instabilities and bifurcations.

The narrator physically confronts his own death when he fails to see his own reflection in the water. While surveying the old, gray Mercedes he believes to be Biaggi's, the narrator notices "A large, immobile puddle in the shadow, which barely reflected the trees and the roves of the house […] however, but I don't know what game of perspectives or blind spot, there was no trace of my presence" (35).[260] This realization represents not only his paranoia and his inability to face death but also the impossibility for him to view reality lucidly. The instability of life is equivalent to the unstable condition of the detective: He has fanatically built an unfounded relationship between the dead cat and Biaggi and later a relationship of stalker to stalked between Biaggi and himself. Later, he breaks into Biaggi's house finding "a large, wooden mirror of which the surface was so somber that, even though I found myself less than three meters from it, one could not distinguish any reflection of my body in the glass, only the dense and

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[260] une grande flaque d'eau immobile dans la pénombre, qui reflétait faiblement les arbres et les toits de la maison […] cependant, par je ne sais quel jeu de perspectives et d'angle mort, il n'y avait aucune trace de ma présence.

immutable obscurity of the deserted vestibule" (58 – 59).[261] Both instances happen when he is searching for Biaggi, and constitute two examples of instability in the text.

The phrase that reappears the most in the text describes the night's sky: "Under the same moonlight as that of that night, the same exactly, with the same black clouds which glided across the sky" (48-49).[262] The narrator not only repeats this phrase five other times throughout the text, but insists on the repetition of nature's actions in the text. He wants nature to be predictable. These repetitions, with an emphasis on "the exact same" is the narrator's effort to slow time's passage by proving that time does not advance but is in fact reversible. As the narrator stated above, since he had returned to the initial situation, he might be able to visit Biaggi, as if time's passage had been undone and he could now control the future. However, his reticence immediately surfaces again ensuring unpredictability and time's irreversibility. Likewise, he is transferring his own reticence to visit Biaggi to a reticence that controls nature's evolution. Nature, according to the narrator, becomes reticent by repeating its situation. Since this is strictly the narrator's description of nature, exact repetitions in nature are strictly impossible. Consequently, the narrator notes that the clouds are moving suggesting time's inevitable passage.

This phrase could evoke a classic detective story where the investigation takes place at night in dark corners; however, for the narrator, this phrase only signals moments of instability and his descent into greater paranoia and chaos which is typical in contemporary detective fiction. The phrase first appears when the narrator has returned to

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[261] un grand miroir en bois dont la surface était si sombre que, bien que je me fusse trouvé à moins de trois mètres de lui, on ne distinguait aucun reflet de mon corps dans la glace, seulement l'obscurité dense et immuable du vestibule désert.

[262] sous le même clair de lune que celui de cette nuit, le même exactement, avec les mêmes nuages noirs qui glissaient dans le ciel.

see the cat's body and he speculates that the cat was assassinated. On page 51, he assumes that Biaggi had watched him sneak out of his hotel at night and had purposefully locked the hotel's window so the narrator could not re-enter. At the next iteration of the phrase, the narrator believes Biaggi must have seen him bend over the cat's body in the port. The narrator has become convinced that Biaggi is in fact staying in his hotel. After breaking in to all the other occupied hotel rooms, the narrator discovers a camera in one of them and is convinced it is Biaggi's.

The next repetition occurs when the narrator assumes Biaggi had taken a picture of him in the port the night he saw the cat. At the subsequent iteration of when the phrase, he believes that Biaggi is no longer stalking him, but must have been strangled at the port under the "same" moonlight. With the final repetition, the narrator is convinced that Biaggi's body has washed up on Sasuelo island in the middle of the port. At this point, the reader is aware of the spiraling paranoia the character is experiencing. Not finding Biaggi at home in the story's beginning has led him to ultimately believe that Biaggi was strangled. In an effort to deny time's passage, the narrator creates a non-realistic scenario of life. As such, this repetition serves again to highlight death as an instability while constituting a bifurcation point as the narrator's beliefs as to Biaggi's whereabouts spiral out of reason: one bifurcation seems to lead to a stable conclusion, only to be disrupted at another bifurcation point. Interestingly, reticence still seems to be a choice at these bifurcation points, suggesting that perhaps it is not the identity of the narrator but the stability of the novel as a genre that is in crisis.

After finally talking to the Biaggi's grounds keeper, the narrator wonders if they were really ever in Sasuelo, and if he has not mistaken the grounds keeper in his old, gray

Mercedes for Biaggi. He never answers his own question but after learning how the cat truly died – through no malicious act but due to the cat's own curiosity about the fish-he seems to have established the truth regarding the Biaggis. The presence of the grounds keeper would explain how the mail was taken in each day and the window blinds adjusted from time to time at the Biaggi's house. This would also explain the fact that the narrator never saw Biaggi, but that all his suppositions were simply his own estimates. His conclusions offer an excellent example of how small changes in initial conditions lead to large effects, as is evidenced by the narrator's improbable and unfounded conclusions about the cat and Biaggi. The author's interpretations of his "evidence" are ultimately and completely erroneous. As such, the initial conditions have not changed, but their actual conclusions differ from those of the narrator. In the final analysis, the narrator's unstable conclusions reinforce the notion that perhaps the novel as a genre is at a point of instability: all the initial conditions may not be known, but the ones that are may not lead to logical conclusions.

Similar to Frankétienne, Toussaint has chosen to repeat some phrases almost exactly. These moments, while representing a textual instability signifying death and time's passage, ultimately highlight the instability of the novel genre. In a traditional *polar*, repetition can be used as a flashback device allowing the detective to replay in her mind the events surrounding the incident. Viewed through the optic of chaos, however, these repetitions can be seen as moments of textual instability which allow bifurcations to more order or to continued chaos while challenging the relations between chaos and order that are typical to a detective story. A simple discussion with the fisherman cleared up the mystery surrounding the black cat, thus this example can be seen as a move from chaos to

order. Yet again, however, the narrator seems reticent to accept the idea that the Biaggi's have in fact not been in Sasuelo during the course of his visit. This continued reticence suggests that a point of instability looms in a choice as yet undefined and illustrates a spiraling effect of the novel.

Ernaux, Frankétienne and Toussaint all present textual instabilities in their works. Ernaux uses marginal encounters and a marginalized version of a traditional diary to destabilize and reorganize identity and the diary genre. She underscores the fundamental chaos that exists in both these areas: people she encounters offer responses at these bifurcations, and she and Marie offer different responses to the same photographs. Frankétienne's texts exhibit instabilities through textual repetitions that focus on stuttering, identity and generic transitions. Whereas Ernaux focuses on social encounters at the fringe of the city center, Frankétienne uses the marginalized Haitian society as the background for his textual bifurcations. Toussaint, through repetition as well, questions the *polar's*, and ultimately the novel's, stability as a genre. In the final analysis, bifurcations, as associated with chaos theory, represent an alternative method through which to better illuminate textual instabilities and responses to such bifurcations by reveling new insights on initial conditions, identity and genre. As such, they are favored by electronic literature. The computer, as a simultaneous author and writer of these texts, offers the contemporary "reader" texts which contain automatic bifurcations produced by the algorithms and interactive capabilities of these texts. Consequently, bifurcations become an integral aspect to the text, not so much to challenge the genre, but to stretch its capabilities. These aspects will be more developed in the coda to this analysis.

The Arrow of Time and bifurcation points serve as two notions borrowed from the 'order out of chaos' theoretical construction that can be productively applied as tools of literary investigation to contemporary French and Francophone fiction. This investigation underscores its relevance in (re)exploring contemporary conceptions of identity and genre and examining the challenges and questions that contemporary authors are addressing in their works. In Chapter Four, this analysis will depart from Prigogine and Stengers chaos theory to explore the important role of gender through the optic of strange attractors, which are components of the "order in chaos" theory.

CHAPTER FOUR: ORDER IN CHAOS

Orderly Descent into Chaos: Strange Attractors

Chapters Two and Three explored predominantly developments made in chaos theory by francophone physicists and philosophers, specifically on how order can emerge from chaos. This chapter will now turn to the Lorenzian model of chaos to address issues more specific to gender studies. Like the contemporary re-exploration of Newtonian dynamics through nonlinear dynamics, literary analysis can also benefit from borrowing terms from chaos theory to re-evaluate contemporary trends in literature such as the question of gender. As Hayles characterizes,

> If chaotic systems exist now, they obviously existed before […] The more subtle aspects of chaos theory have to do with the changes in orientation and focus. […] What is known is a function of what is noticed and what is considered important. If the criteria defining center and margin change, in a very real sense the structure of knowledge changes as well. (*Chaos Bound* 144)

Not only have chaotic systems always existed but they also served to distinguish sexual differences. Gender studies calls into question the perspective on these manifestations of an equivalency of women to chaos and men to order. Furthermore, it attempts to debunk this association or to affirm its creative energies, specifically the suggestion that chaos serves women positively. Indeed from Antiquity, Pythagoras is attributed to claiming *"*There is a fine law that creates order, light and man. There is a terrible law that creates chaos, shadow, and woman." In particular, however, two twentieth century francophone women philosophers, specifically Simone de Beauvoir in *Le Deuxième Sexe* (*The Second Sex*) (1949) and Hélène Cixous in her article "Le Rire de la Méduse" ("The Laugh of the Medusa") (1975) sought to challenge traditional gender roles and to liberate women from this often restrictive and non-dynamic, stagnant categories. Margaret Atack suggests,

through a contemporary reading of de Beauvoir's text which hints at the relevance of chaos theory and strange attractors, that

> The subject/other relationship in *The Second Sex* is frequently referred to in criticism as if it were a static relationship: man is subject, woman is other, this is the fault-line to be traced through humanity with an unequivocal distribution of the sexes on either side of it […] [However] [t]he subject/other dynamic is precisely that, a dynamic which is in constant flux, demands constant reaffirmation both collectively and individually, has to be continually reinvented because it can ultimately never satisfy, never be established once and for all […] what Beauvoir is writing against is the way gender socialization gives the illusion of permanency and security, falsely naturalizing a hierarchical difference, effectively offering a belief in the (illusory) meta-narrative of gender as a security to both sexes. (41-42)

Beauvoir, according to Atack, proposes a new model for considering gender roles in society. Lorenzian strange attractors will offer an appropriate paradigm through which to re-conceptualize gender as dynamic as Beauvoir proposes. Not only will both sexes be associated with order and chaos in this analysis, but men and women, viewed as strange attractors with fractal characteristics, will offer new insights into how gender is portrayed in contemporary Francophone fiction.

Pertinent to this analysis of Francophone texts, women and their relationship to chaos, Valerie Orlando's *Of Suffocated Hearts and Tortured Souls: Seeking Subjecthood through Madness in Francophone Women's Writing of Africa and the Caribbean* offers example of men associating women with chaos, particularly in Muslim societies. However, another aspect Orlando highlights is how madness, and its ensuing chaos, offers some, but not all, women in these societies a productive state of existence rather than a harmful one. Such fictions include Suzanne Laclade's *Claire-Solange, âme africaine*, *Zeida de nulle part* by Leïla Hourai, and *N'zid* by Malika Mokeddem. On the other hand, Orlando also examines texts where madness and chaos becomes crippling for

the woman, such as in Mariama Bâ's *Une chante écarlate*, Calixthe Beyala's *Tu t'appelleras Tanga*, Marie Vieux-Chauvet's *Amour, Colère, Folie*, and Myriam Warner-Vieyra's *Juletane*.[263]

Traditional insights, in this case associating men with order and women with chaos often are related to, as Hawkins characterizes, "more linear critical equations" whereby the story is "absolutely determined from the outset by the race, gender, class, psychic predisposition or tragic flaws of the protagonist" (154). Through the lens of strange attractors and essential concepts outlined below, gender will be liberated from these linear critical analyses and explored in selected texts by Ernaux, Toussaint, and Frankétienne.

Attractors, Phase Space, Basins and Fractals

If Prigogine and Stengers are concerned with self-organization out of chaos, Lorenz, Mandelbrot and others focus "on the orderly descent into chaos" (Hayles, *Chaos Bound* 10). As with Prigoginian chaos theory, order and chaos in this model also demonstrate a complementary relationship: a Lorenzian system is chaotic but is orderly at its core. The two do not compromise each other, but exist innately in the system. In science, an attractor is any point to which a system is drawn and a strange attractor paradoxically serves as a point of order deeply embedded in a chaotic system. Recalling the classical pendulum example from Chapter Three, the attractor is the position of the pendulum at rest: although a pendulum may be agitated by an outside source, it will

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[263] Also see Heather Ingram *Women's Fiction between the Wars: Mothers, Daughters, and Writing*. New York: St. Martin's Press, 1998.

inevitably return to its resting position if no other perturbations occur. As such, the pendulum system is attracted to its center or rest point. An important element of any attractor system is the basin of attraction that surrounds the attractor. As Floyd Merrell claims: "The point-object can begin its movement anywhere in the space and its trajectory will be guided by the basin of attraction and inexorably drawn toward the attractor which is also defined as a point in space" (113).[264] This basin of attraction is mapped in what science calls "phase space." This space is not the actual physical space of an event like a baseball field or a room in a house, but is a map of all possible trajectories of a system similar to a road map of any town or country.

In layman's terms, "In this manner comparable to a road map, phase space is a depiction of the dynamics of what might occur [to a point in a system] in light of the range of all possible occurrences" (113). As such, phase space is used by physicists to map out all possible states of a chaotic system. These states are only possibilities and cannot predict with accuracy exactly how an event will occur in the real world. In this analysis, the written text will become the "phase space" in which the writer explores possibilities for the real world. An attractor in a written text could be a character, a place, theme or emotion to which the text continually returns.

One type of attractor is called a strange attractor: a point to and from which a chaotic system is simultaneously attracted and repulsed within the basin of attraction. As Merrel describes in *Simplicity and Complexity*:

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[264] Merrrell highlights four different kinds of attractors: fixed point, limit cycle, quasi-periodic, and strange. A pendulum qualifies as a fixed point attractor as it always returns to the same point at rest. The human heart is a limit cycle attractor in that it wil continue to beat indefinitely until death, thus having a limited cycl as it continues "in a cycle around a closed loop indefinitely" (114). He characterizes a smoke ring as a quasi-periodic attractor "The motion of the microscopic particles making up the smoke ring […] is a dynamic, somewhat structured pattern of movement, with the particles gyrating around and around the surface of the ring with the ring itself slowly rotating like a fat, slow motion of a hula-hoop." (114).

> Strange attractors are 'strange' in part because they are somehow capable of reconciling two contradictory phenomena: they are *attractors*, the locus toward which the trajectories of elements in a system converge, and they are *repellers,* rapidly forcing the trajectories of those same elements outward. There is a combination of folding and stretching, of convergence and divergence, of a tendency toward the oneness of a single point and the manyness at widely disseminated points, of continuity and discontinuity, reversibility and irreversibility, simplicity and complexity […] strange attractors of the Lorenz sort also exhibit fractal characteristics: descriptions require fractional descriptions rather than descriptions by whole integers. (117)

The location of a strange attractor can be mapped in phase space, but cannot be pinpointed in the real world. The Escher's Moebius band offers an example of the tracing of a chaotic system in phase space. An insect walking along the edge of the strip would never cross another section of the strip on its trajectory.[265] Similarly, trajectories of chaotic systems never cross (touch) the same point twice, unlike in regular attractor systems which frequently intersect. The well-known trajectory of a nonlinear system in phase space does resemble what is known as Lorenz's butterfly effect because the trace of the path looks like butterfly wings. The point at which the trajectories appear to cross (but do not as their trajectory is fractal in dimension and a two dimensional image cannot demonstrate a third dimensionality) is the location of the strange attractor, the point to which the trajectory appears to return.[266] As Hawkins notes "The first computer image of a strange attractor […] looks something like a butterfly, something like cat's eyes, something like a mask, but always like an enigma" (127). While the system may appear

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[265] See Moebius band II in Mauritz Cornelius Escher, *M.C. Escher, the graphic work*. Los Angeles: Taschen, 2001, pg. 40.

[266] The Lorenz butterfly effect is also due to the fact that any nonlinear dynamic system is extremely sensitive to initial conditions. The slightest variation in initial conditions can lead to huge differences in a system's behavior. The example is often given of "If a butterfly flaps its wings in New York, a tornado will occur in Kansas." As with all nonlinear dynamic systems, there is no direct cause and effect that can be established however but only results due to nonlinear processes, which are determinisitic, according to Merrell, "regarding the whole [system] but unpredictable with respect to a grasp of any of [its] parts." (117).

disordered in the real world, when mapped in phase space, its order surfaces, however chaotically. Equally, words employed in writing serve as a form of order to represent the author's real-life (although these works are fictional they do seek to represent real life) experience with chaos.

The Moebius strip and the Lorenz attractor, as a result of their composition, contain fractal components. Both are not completely contained within a one, two or three-dimensional space. The curves are contained between a one- and two-dimensional plane or a two- and three-dimensional plane. As such, these chaotic systems are fractal.[267] In this investigation, the strange attractor, narratively represented by a man or a woman, will translate into "phase space" or the written page as a point of attraction to which the character returns. As such, the representations of man and woman will be fractalized: neither will be completely chaotic or completely orderly but somewhat of both. Their physical existence in society will also be fractal, expressing a contemporary social *malaise* but also rejecting complete belonging in one state or another. For the authors, these strange attractor points translate into a complex questioning of the presence of jealousy, insecurity, and love in contemporary society between several dimensions.

Engendering Phase Space: Jealousy, Waiting and Identity

A strange attractor cannot be defined without first establishing its phase space and the basin of attraction mapped therein. Additionally, whereas Newtonian physics focused on the importance of an individual particle, what chaos theory asserts

> by contrast is that the individual unit does not matter. What does matter
> are recursive symmetries between different levels of the system […] The

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[267] See Chapter One "Literary Fractalization and Noise" of this analysis for an detailed discussion of fractals.

regularities of the system emerge not knowing about individual units but from understanding correspondence across scales of different lengths. (Hayles, *Chaos Bound* 170).

If a linear, Freudian examination would isolate the narrator's jealousy for that of a man and of a woman in Ernaux's works *Passion simple* and *L'Occupation*, respectively, an analysis through chaos theory removes the individual from the analysis's focal point and allows an investigation into similarities across larger categories where similarities may be drawn. Thus the jealousy experienced by the female narrator can be seen for its similarities and not necessarily biased as being sexually gendered towards a man or a woman. As phase space is a map of all possible system trajectories, jealousy becomes ungendered.

As the narrator claims at the beginning of *Passion simple*, "Beginning in September of last year, I did nothing other than wait for a man: that he called me and that he came over to my place" (13).[268] Immediately the narrator defines her phase space, one that would be filled with waiting. She admits: "I wanted nothing other to do than wait for him."(17).[269] Not only was waiting all she did, it is the only thing she wanted to do. Consequently, the *lieux* the narrator describes in her text is not just a valorization of the banal, but viewed through the lens of phase space, are the only locales possible for her waiting period. She offers more details of her phase space claiming:

> The only actions where I engaged my will, my desire and something which must be human intelligence (to predict, to evaluate the pros and cons, the consequences) all had a link with this man […] In conversations, the only subjects which pierced my indifference had a rapport with this man, his job, his country, the places where he went. (14 – 15)[270]

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[268] A partir du mois de septembre l'année dernière, je n'ai plus rien fait d'autre qu'attendre un homme: qu'il me téléphone et qu'il vienne chez moi.

[269] J'aurais voulu n'avoir rien d'autre à faire que l'attendre.

[270] Les seules actions où j'engageais ma volonté, mon désir et quelque chose qui doit être l'intelligence humaine (prévoir, évaluer le pour et le contre, les conséquences) avaient toutes un lien avec cet homme

Not only is the narrator focused on activities that only concern this man (her strange attractor), but her life also diverges from her normal routine indicating another example of how the situations she describes are particular to this man: "Contrary to my usual way of living, I easily threw money out the window. This seemed to belong to a general, necessary expense, inseparable from my passion for A." (28).[271] The narrator's departure from normal fiscal control hints at the chaos that is lurking in this phase space. When A. does call to inform the narrator he is coming over, her physical trajectory in the space of her apartment translates to the page as an admonition of disordered tasks:

> If he announced he would be arriving in an hour [...] I entered into another form of waiting, without though, without desire even […] filled with feverish energy for tasks that I wasn't able to order: take a shower, take out the glasses, polish my nails, mop the floor. I no longer knew for whom I was waiting. I was only caught up by this instant. (16 – 17)[272]

These typically mundane tasks become part of the chaotic phase space which she inhabits. All these tasks were centered around A. which, in phase space, translate into chaotic trajectories around a strange attractor. Even once A. leaves France, he is still a constant influence in her life, and her phase space:

> I woke up in the middle of the night, remaining until the morning in an indistinct state […] I was looking at shirts, shoes that I had bought for a man, becoming once more clothes without significance, just to be in fashion. Was it possible to desire these things, any things, other than for someone, to serve love? I needed a shawl because of the sharp cold: 'he will never see it.' (54-55)[273]

[…] Dans les conversations, les seuls sujets qui perçaient mon indifférence avaient un rapport avec cet homme, sa fonction, le pays d'où il venait, les endroits où il était allé.

[271] Contrairement à ma façon habituelle de vivre, je jetais facilement l'argent par les fenêtres. Cela me semblait faire partie d'une dépense générale, nécessaire, inséparable de ma passion pour A.

[272] S'il m'annonçait qu'il arrivait dans une heure […] j'entrais dans une autre attente, sans pensée, sans désir même […] remplie d'énergie fébrile pour des taches que je ne parvenais pas a ordonner: prendre une douche, sortir les verres, vernir mes ongles, passer la serpillière. Je ne savais plus qui j'attendais. J'étais seulement happée par cet instant

[273] Je me suis réveillée au milieu de la nuit, restant jusqu'au matin dans un état indistinct […] je regardais les chemisiers, les chaussures, que j'avais achetés pour un homme, redevenus des fringues sans

Strange attractors influence objects, even at a distance, in its basin of attraction. Simply because A. has left France the narrator is still in his basin of attraction. As such, she tries to recreate scenes that she lived when he was still in France. However, from the point of view of a chaotic system moving around a strange attractor, the trajectory can never repeat:

> If I went to a place where I went last year when he was here – the dentist or to a staff meeting -, I wore the same suit as before, trying to persuade myself that the same circumstances would produce the same effects, that he would call me in the evening on the phone. In going to bed around midnight, worn out, I realized that I had really believed in this call all day. (56-57)[274]

If Thomas suggests that the topic of *Passion simple* is "passionate and obsessive love […] concerned with separation from a significant other, and with the process of grieving," (17) her actions seen through the optic of a strange attractor suggest one of a continual return to the attractor but through a path that cannot be repeated. The narrator has no choice but to act this way in a certain basin of attraction and this would be true for any love lost. More broadly, her realization at midnight echoes the revelations of Newtonian science in the face of nonlinear dynamics: time is irreversible and event cannot be re-enacted exactly as before. Furthermore, an object's trajectory cannot return to its exact "attractor" point in a strange attractor system. Ernaux translates this effect onto the page in describing the narrator's method of recording her time before and

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signification, juste pour être à la mode. Était-il possible de désirer ces choses, n'importe quelle chose, autrement que pour quelqu'un, pour servir l'amour? Il m'a fallu un châle à cause du froid vif: 'Il ne le verra pas.'

[274] Si je me rendais dans un endroit où j'étais allée l'année dernière quand il était là – chez le dentiste ou à une réunion de professeurs -, je mettais le même tailleur qu'alors, essayant de me persuader que les mêmes circonstances produiraient les mêmes effets, qu'il m'appellerait le soir au téléphone. En me couchant vers minuit, abattue, je me rendais compte que j'avais réellement cru à cet appel toute la journée.

immediately after her encounters with A., her strange attractor. While she can describe in

detail events before the encounter, she cannot coherently describe the actual encounter:

> Often I used to write on a piece of paper the date, the hour and 'he is going
> to come' with other phrases, fears, that he wouldn't come, that he at least
> had desire. In the evening, I went back to this paper, 'he came', noting in a
> disorderly fashion the details of this encounter. Then, dazed, I used to look
> at the scribbled paper, with the two paragraphs written before and after,
> which were read one after the other, without rupture. Between these two
> there had been words, gestures, which rendered the rest pathetic, including
> the writing by which I tried to immobilize them. (18-19)[275]

Writing serves to define the phase space as an entity which exceeds the words in creating

larger and more dynamic space. As such, if McIlvanney suggests astutely that the

> dialogueless pornographic film [at the beginning of the text] foreshadows
> the overwhelming sexual nature of the relationship portrayed in *Passion
> simple* […] gestures and actions are presented as of greater significance
> than language in the narrator's account of her sexual passion. (75)

Viewed through the optic of strange attractors, the lack of language is less the author's

emphasis on the importance of gestures and actions than the fact that activity around a

strange attractor is unpredictable and difficult to describe.

Several of Ernaux's works are concerned with a narrator's relationship with a

man: *Passion simple*, *Se perdre*, and *L'Usage de la photo.* In *L'Occupation*, the narrator

writes about her obsession with her ex-boyfriend's new girlfriend. Much as the narrator

was obsessed with A. in *Passion simple*, the narrator in *L'Occupation* becomes obsessed

with this unknown woman: "He was going to live with a woman […] From this moment,

the existence of this other woman overwhelmed mine. I only thought through her" (13-

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[275] Souvent, j'écrivais sur une feuille la date, l'heure, et 'il va venir' avec d'autres phrases, des craintes, qu'il ne vienne pas, qu'il ait au moins de désir. Le soir, je reprenais cette feuille, 'il est venu', notant en désordre des détails de cette rencontre. Puis, je regardais, hébétée, la feuille gribouillée, avec les deux paragraphes écrits avant et après, qui se lisaient à la suite, sans rupture. Entre les deux il y avait eu des paroles, des gestes, qui rendaient tout le reste dérisoire, y compris l'écriture par laquelle j'essayais de les fixer.

14).[276] Consequently, the narrator's phase space will include the basin of attraction around this strange attractor – the anonymous woman. The narrator lives far from her normal equilibrium in a chaotic state: "This state held, far from me, the quotidian worries and aggravations. In a certain way, it put me outside of reach of the habitual mediocrity of life. But the reflection that political events and the news generally resuscitate had no hold on me" (14-15). [277] Unlike *Passion simple*, the narrator's phase space in *L'Occupation* is not focused on waiting, but on discovering the identity of this woman. As such, much of the events related in the novel are centered on identity at large:

> I had to know, at all costs, her first and last name, her age, her profession, her address. I discovered that this data retained by society to define the identity of an individual and that we claim, ever so lightly, without interest for the true knowledge of someone was, on the contrary, was vital. This information would allow me to extract from the undifferentiated masses of all women a physical and social type, to represent to me a body, a style of life, to elaborate the image of a character. And as soon as he told me, with reticence, that she was forty-seven years old, that she was a teacher, divorced with a sixteen year old daughter and that she lived on Rapp avenue in the 7th, surged a silhouette in a conservative suit and shirt, hair impeccably coiffed, preparing her courses in an office in the shadow of a bourgeois apartment. (15-16)[278]

Just as a scientist would seek out all possible information to describe a system in phase space, so does this narrator seek all the data possible on this woman in order to accurately describe her and delineate her from the masses. As such, events described in her phase

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[276] Il allait vivre avec une femme […] A partir de ce moment, l'existence de cette autre femme a envahi la mienne. Je n'ai plus pensé qu'à travers elle.

[277] Cet état tenait éloignés de moi les soucis et les agacements quotidiens. D'une certaine façon, il me situait hors d'atteinte de la médiocrité habituelle de la vie. Mais la réflexion que suscitent généralement les événements politiques, l'actualité, n'avait pas non plus de prise sur moi.

[278] Il me fallait à toute force connaître son nom et son prénom, son âge, sa profession, son adresse. Je découvrais que ces données retenues par la société pour définir l'identité d'un individu et qu'on prétend, à la légère, sans intérêt pour la connaissance véritable de la personne étaient, au contraire, primordiales. Elles allaient me permettre d'extraire de la masse indifférenciée de toutes les femmes un type physique et social, de me représenter un corps, un mode de vie, d'élaborer l'image d'un personnage. Et dès lors qu'il m'a dit, avec réticence, qu'elle avait quarante-sept ans, qu'elle était enseignante, divorcée avec une fille de seize ans et qu'elle habitait avenue Rapp, dans le VIIe, a surgi une silhouette en tailleur strict et chemisier, brushing impeccable, préparant ses cours à un bureau dans la pénombre d'un appartement bourgeois.

space will center on seeking out this information and it will consume most parts of the narrator's physical and emotional life. As such, discovering the woman's identity becomes a strange attractor for the narrator.

The narrator focuses on the age of the woman: "The number 47 took on a strange materiality […] All those to whom I could attribute between forty and fifty years old were the double of this other woman" (16).[279] She focuses on her profession: "I realized that I detested all women professors – although being what I had been" (16).[280] She sees this anonymous woman on the metro: "In the metro, any woman around forty years old carrying a briefcase filled with coursework was 'her' and to see her was painful" (17).[281] When she is walking in the neighborhood of Rapp avenue she had "the impression of finding [herself] in a hostile area, to be watched on all sides, in an indefinable way" (19).[282] She in fact describes a perimeter in Paris which contains the influence of this woman, a perimeter which encompasses her phase space:

> Inside an uncertain perimeter, going from the Invalides to the Eiffel Tower, including the Alma bridge and the calm uppercrust of the 7th, spread a territory where, for nothing in the world, would I have ventured. A zone always present in me, entirely contaminated by the other woman, and that the luminous paintbrush of the beacon of the Eiffel Tower, visible from the window in my house at the top of the western suburb, pointed out to me obstinately, each evening, in scanning it with regularity until midnight. (19)[283]

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[279] Le nombre 47 a pris une étrange matérialité […] Toutes celles à qui je pouvais attribuer entre quarante et cinquante ans […] étaient des doubles de l'autre femme.

[280] Je me suis aperçue que je détestais toutes les femmes profs – ce que j'avais pourtant été.

[281] Dans le métro, n'importe quelle femme dans la quarantaine portant un sac de cours était 'elle', et la regarder était une souffrance.

[282] L'impression de [se] trouver dans un espace hostile, d'être surveillée de tous les côtés, de façon indéfinissable.

[283] A l'intérieur d'un périmètre incertain, allant des Invalides à la tour Eiffel, englobant le pont de l'Alma et la partie calme, huppée, du VIIe, s'étendait un territoire où, pour rien au monde, je ne serais aventurée. Une zone toujours présente en moi, entièrement contaminée par l'autre femme, et que le pinceau lumineux du phare de la tour Eiffel, visible des fenêtres de ma maison sur les hauteurs de la banlieue ouest, me désignait obstinément, chaque soir, en la balayant avec régularité jusqu'à minuit.

As such, her two-dimensional physical space serves as the metaphor for the fractal space surrounding the strange attractor.

If her physical phase space is approximately defined, her mental space is less so. In particular, the narrator becomes extremely obsessed with the discovering the name of this woman: she wants to label her strange attractor. She claims: "This missing name was a hole, a hollowness around which I turned" (28).[284] Consequently she uses the Internet, a web of bifurcating, iterative information, to try to determine this woman's name, a quest which has become an obsession for the narrator (30). With the Internet, the result of one input becomes the "initial condition" or input for the next search. However, this effort to discover her name becomes complex and uncertain: "Each new bit of information that I would extract [from my ex] sent me rapidly in torturous and tireless searches on the Internet, of which the usage suddenly was important to my life" (31).[285] If an Internet search could be graphed, its representation would be similar to that of a Lorenzian strange attractor as a search becomes sensitive to initial conditions, bifurcating in different directions and website spaces, sometimes returning the researcher to similar sites, sometimes diverging indefinitely. As such, an Internet search becomes a sort of *mise-en-abîme* for the novel: the details on the woman's dissertation topic, where she worked, and publications she was working on all get integrated into the narrator's search. As with a chaotic system, however, all the system's initial conditions are impossible to define. Furthermore, once one input is used, a new outcome is produced which then leads to a new input, iteratively continuing. Consequently, the narrator, while she gains more details about the woman from her ex, these details only send her bifurcating and

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[284] Ce nom absent était un trou, un vide, autour duquel je tournais.

[285] Tout nouvel indice que je soutirais [de mon ex] me lançait aussitôt dans des recherches tortueuses et infatigables sur l'Internet, dont l'utilisation a soudainement été importante dans ma vie.

iteratively generating more initial conditions on the Internet, unable to accurately discover the woman's name. This obsession, viewed as an iterative process becomes less a search that is driven by madness and feminine obsession, but one that is driven by nonlinearity, but a nonlinearity that has a deep point of order: the strange attractor around which these trajectories circle.

When the Internet fails her, she turns to the Minitel and ultimately to calling everyone in the woman's building to try to find her. When this fails, the narrator attempts to make cause-and-effect chains based on reactions she gets from her ex when they speak on the phone. She claims: "In incertitude and the need to know where I was, the information pushed aside could be brutally reactivated. My aptitude for connecting the most disparate facts in a cause-and-effect relationship was prodigious" (40).[286] She was going to meet her ex on a certain day but he had to call and cancel. The narrator hears on the radio that the day they were supposed to meet was the day to celebrate all people named Dominique. The narrator instantly concludes that Dominique "was the first name of the other woman: he couldn't come to my house because it was her party day and that they would go together to dinner, would dine in candlelight, etc. This reasoning led to a lightning bolt. I could not doubt it" (41).[287] However, as no cause-and-effect chain can be drawn for a nonlinear system, the narrator's attempt to force such a linear explanation is ineffective. Such linear connections are not possible in her phase space.

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[286] Dans l'incertitude et le besoin de savoir où j'étais, des indices écartés pouvaient être réactivés brutalement. Mon aptitude à connecter les faits les plus disparates dans un rapport de cause à effet était prodigieuse

[287] C'était le prénom de l'autre femme: il ne pouvait pas venir chez moi parce que c'était sa fête, qu'ils iraient ensemble au restaurant, dîneraient aux chandelles, etc. Ce raisonnement s'enchaînait en un éclair. Je ne pouvais pas le mettre en doute.

Instead of viewing her reasoning as verging on ridiculous, viewed through phase space, this attempt demonstrates that life is not linear and such connections cannot be inferred. In summary, the narrator's phase space in *L'Occupation* encompasses both the narrator's mental and physical space. Traditionally, geographical and psychological coordinates are attached to the definition of a person. Recalling Lorenz's fractalized spaces and multiple dimensions, however, in this case, the connection between a name and logical reasoning serves to establish the description of the character.

These spaces, although banal, are particular to the strange attractor around which she vacillates. The phase spaces in *Passion simple* and *L'Occupation* are equally driven by a male and female strange attractor. Interestingly, these spaces generate mundane locales and experiences. One space cannot be viewed as more chaotic than the other and as such, both masculine and feminine strange attractors serve as points of order within this chaotic space neutralizing any assumed associations between gender and chaos.

Engendering Phase Space: Love in a Time of Intolerance

If Ernaux's phase spaces are created around love affairs with men, married or otherwise, involved with other women, Toussaint's trilogy composed of *Faire l'amour* (*Making Love*), *Fuir* (*Running Away*), and *La Vérité sur Marie* (*The Truth about Marie*) generates a phase space based on love and intolerance between the narrator and Marie, both of whom serve alternately as strange attractors generating such a space. In *Faire l'amour*, the narrator accompanies Marie to Japan where she is having a fashion show of her clothes line. The narrator describes the phase space of their trip to Japan as "[Marie] covered in honors, meetings and work, surrounded by a court of collaboration, hosts and

assistants, and me, without status, in her shadow, her courier in sum, her cortege and her escort" (23).[288] In addition, their hotel room was a "disorder of wraps, and dresses which cluttered the bed sheets" (24).[289] As such, Marie is the center around which he circulates. The space that surrounds Marie is cluttered with her work agenda as well as it is also cluttered physically by Marie's dresses. This is the world in which the narrator exists and which Marie generates. He is only in Japan because of Marie and her activities dictate his actions. Likewise, Tokyo offers a chaotic background for their relationship. The flight to Tokyo contributes to the disorder, both physically and emotionally, of the narrator since "by a regrettable confusion due to numerous flight changes that Marie had made at the last minute, no one came to meet us at the [Tokyo] airport" (57).[290] Again, Marie as his strange attractor generates a chaotic phase space around her.

The weather in Tokyo also contributes to the narrator's phase space: it is raining when they arrive, then it starts to snow, and there is also an earthquake. Indeed, the narrator equates the falling snow with the passage of time, one in which

> The flakes whirled an instant in the light like a cloud of powdered sugar dissipated by an invisible and divine wind -, and in the immense powerlessness that I felt to not be able to slow time from passing, I predicted thus that with the end of the night our love would also end" (59).[291]

If invisible causes are driving the end of their relationship, the earthquake, occurring at sunrise, represents an ultimate force which is signaling the end of their relationship:

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[288] [Marie] couverte d'honneurs, de rendez-vous et de travail, entourée d'une cour de collaboration, d'hôtes et d'assistants, et moi, sans statut, dans son ombre, son accompagnateur en somme, son cortège et son escorte.

[289] désordre de peignoirs et de robes qui encombraient les draps

[290] par une confusion regrettable due aux nombreux changements de vols que Marie avait effectués jusqu'au dernier moment, [donc] personne n'était venu nous attendre à l'aéroport [de Tokyo].

[291] les flacons tourbillonnaient un instant dans la lumière comme un nuage de sucre glace dissipé par un soufflé invisible et divin – et, dans l'impuissance immense que je ressentais à ne pouvoir empêcher le temps de passer, je pressentis alors qu'avec la fin de la nuit se terminerait notre amour.

"And, although, it broke my heart as I watched her cry in front of me in her chair, I knew that it was the evocation of the earthquake which had provoked [her tears], because the earthquake was inseparably now linked, for us, to the end of our love" (95).[292]

This story can read according to the model of a phase space which is centered on a strange attractor. In this phase space, chaotic fluctuations are ever present. If Patrick Kéchichian from *Le Monde* characterizes *Faire l'amour* as a "geometry of the vertigo of loving […] Geometry infinitely precarious in a world threatened, physically, by an earthquake," ("La géométrie"), viewed through the lens of phase space the novel is less geometrical than it is nonlinear, instead of vertiginous it is chaotic love with order deeply embedded.[293] In *Faire l'amour* it is Marie who serves as the point of order, around which the narrator orbits. In other instances, it will be the narrator who will serve as the point of order within the chaos of the trilogy.

Emotionally, the connection between the narrator and Marie paradoxically aligns love and anguish. On the morning they arrive in Tokyo, exhausted from jet leg, the narrator reflects: "I was thinking that we were going to end up making love this night, and that it would be agonizing" (16).[294] If we read the narrator's environment as a phase space, his path leads him to approach Marie, his strange attractor, then to obliquely pass her. Other such itineraries occur throughout the novel. When asked why he will not kiss her, the narrator equivocates, claiming he never said he did or did not *not* want to kiss her (17). They ultimately start to make love the night of their arrival but do not climax.

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[292] Et, tandis que, le cœur serré, je la regardais pleurer en face de moi dans son fauteuil, je savais que c'était l'évocation du tremblement de terre qui [avait provoqué ses larmes], car le tremblement de terre était maintenant indissociablement lié pour nous à la fin de notre amour.

[293] géométrie du vertige d'aimer […] Géométrie infiniment précaire dans un monde menacé, physiquement, de tremblement de terre.

[294] je songeais que nous allions quand même finir par faire l'amour cette nuit, et que ce serait déchirant.

Following the earthquake, they start to make love on the bridge, but Toussaint ends the chapter without confirming that either one had orgasmed. In the following chapter, the narrator and Marie return to the hotel, take a bath and go to sleep. Both characters appear calmer suggesting that perhaps one or both of them was sexually satisfied. However, the chaos continues as they are immediately awakened by a call from the front desk that their Japanese colleagues are waiting for them in the lobby for meetings to prepare for Marie's show. Marie's tears when her Japanese colleagues mention the earthquake indicate that she is still emotionally upset about her relationship with the narrator. When they do finally arrive at the museum that is going to exhibit her fashion line, the narrator becomes disoriented as he watches Marie disappear and reappear on the security cameras in the museum. Ultimately, he leaves the museum without notifying Marie, returns to the hotel, and decides to visit a friend outside of Tokyo for a few days. While there, the narrator passes two days in a feverish, disoriented state. Similar to A. in *Passion simple* who continues to influence the narrator even after his departure from France, Marie continues to influence the narrator although he has removed himself from her immediate presence. Once in the basin of attraction, objects will be continually under the influence of the strange attractor. As such, the narrator's sickness in Toussaint's novel is a reflection of the continued chaos Marie generates. Whether he is close or far from Marie, his phase space is still chaotic and unpredictable.

In much the same way Ernaux's narrator tries to recreate scenes in order to generate the same reaction, while in Kyoto and after his fever has passed, the narrator revisits an *auberge* in which he and Marie stayed on a different visit. However, similar to Ernaux's narrator, upon arriving at the inn the narrator reflects : "I was looking at the

quiet facade of the *auberge,* I was on the lookout for a sign from the past, a sound, an odor, a particular detail, I stayed there a few minutes, my senses alert, and ended up retracing my steps, I had nothing to do there" (130).[295] In a chaotic phase space, events will not repeat. Ernaux's autobiographical format and Toussaint's more traditional novel form reinforce this notion across different genres reflecting the notion of a fractal which allows comparisons based on rates of change across different levels of different systems (genre) rather than simply on change within one system. In addition, this conclusion demonstrates a similar phenomenon in works by different authors, suggesting a perhaps unconscious trend in contemporary literature to acknowledge the irreversibility of time.

Fuir, the second novel in the series actually takes place temporally prior to *Faire l'amour.* As such, the narrator anticipates their later problems in Japan when he states in the opening line to *Fuir*: "Would this ever end with Marie?" (11).[296] The physical setting is China, continuing the trilogy's Asian theme. Marie has arranged for the narrator to be semi-escorted by some of her Chinese colleagues when the narrator takes a vacation to China. Thus, Marie, as the strange attractor, is still driving the narrator's phase space.

The narrator's itinerary in China is left up to chance as he follows Marie's colleague to several places in the city. A visit to a museum in Shanghai allows him the opportunity to meet LiQi, a young Chinese woman with whom he immediately develops a rapport. As such, she invites him to come with her to Beijing the next day on the overnight train. Not having a fixed schedule, the narrator agrees to accept this unexpected invitation. Even more unexpected is when the narrator arrives at the train station to find

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[295] Je regardais la façade silencieuse de l'auberge, je guettais un signe du passé, un son, une odeur, un détail particulier, je restai là quelques minutes, les sens aux aguets, et finis par revenir sur mes pas, je n'avais rien à faire là.

[296] Serait-ce jamais fini avec Marie ?

not only LiQi but Marie's colleague, Zhang Xiangzhi with her. Irritated at Zhang's presence, he admits: "I stopped trying to understand what was happening, so many things seemed obscure to me since I had arrived in China" (24).[297] His trajectory in his phase space is unpredictable like a nonlinear system.

As previously discussed, strange attractors influence their phase spaces even at a distance. The narrator and LiQi are making out in the train bathroom when the cell phone that Zhang gave the narrator rings. It is Marie calling to inform the narrator of her father's death. Marie's call serves as an attractor to pull the narrator's trajectory back to her. In the end, the narrator ends up leaving China to come to Ile d'Elbe for the funeral. Before he leaves China however, the narrator, Zhang and LiQi check into a hotel that Zhang has already prearranged in Beijing. The hotel is still under construction in some wings, supporting the notion that in this phase space, the environment is continually "under construction."

Zhang picks up a motorcycle and takes the narrator bowling, where they meet up with LiQi who had some work to attend to first. Suddenly Zhang gets a phone call and the three of them end up fleeing the bowling alley on the motorcycle. The narrator hears police sirens in the distance. Although he is never given an explanation, the narrator assumes the police are chasing them. They stop in a crowded pedestrian street in Beijing while Zhang deposits an envelope from his jacket into the ceiling of a bar. Details suggest that LiQi has used the money that Marie gave the narrator to give to Zhang to buy drugs. Zhang and LiQi put the narrator in a taxi back to the hotel without them ending the

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[297] Je ne cherchais plus à comprendre ce qui se passait, tant de choses me paraissaient obscures depuis que j'étais arrivé en Chine.

chapter. Neither Zhang nor LiQi offer an explanation to the narrator, supporting the notion that in this phase space, some events are unexplainable as they are in Lorenzian phase space.

In contrast, the following chapter begins serenely:

The Mediterranean was calm like a lake. Tiny wrinkles, like very young skin, ran across the surface, in a permanent undulation of immobile wavelets. I listened to the regular beating of the water against the hull of the ship, scansion of the sea, imperceptible lapping of the waves. I had the feeling to be outside of time, I was in silence – a silence about which I had no idea. (119)[298]

He is approaching Ile d'Elbe (Elbe Island) and thus Marie, so his phase space seems to becoming more orderly than it was when he was geographically far from her in China. His trajectory from China to Ile d'Elbe is a torturous one with many different possibilities for the narrator to get there once he arrives in Paris from China. However, the paths in physical space are not direct and reflect the circuitous route in his phase space to approach his strange attractor: "There weren't any direct air routes from Paris, no airport listed on the island […] The best chance still was to try to reach Piombino by plane via Rome or Florence" (120 – 121).[299] Once on the island it is finally Marie who finds him but the encounter is not wrought with tension and discord, much the way their interaction was in *Faire l'amour* suggesting a phase space common to both novels as the strange attractor is the same.

However, while the attractor is the same, a phase space will reveal different possibilities for the trajectory. These two novels offer different settings – Japan, China

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[298] La Méditerranée était calme comme un lac. D'infimes rides, comme d'une peau très jeune, parcouraient sa surface, dans un ondoiement permanent de vaguelettes immobiles. J'écoutais les battements réguliers de l'eau contre la coque du navire, la scansion de la mer, l'imperceptible clapotis des vagues. J'avais le sentiment d'être hors du temps, j'étais dans le silence – un silence dont je n'avais plus idée.
[299] Il n'y avait pas de liaisons aériennes directes depuis Paris, pas d'aéroport recensé dans l'île […] La meilleure chance était quand même d'essayer de gagner Piombino par avion, via Rome, ou Florence.

and Ile d'Elbe and while admittedly two are Asian spaces, the trajectories within each will vary. As such, using the optic of a phase space allows for the exploration of the path of a system within two phase spaces that have the same attractor, allowing comparisons across two different stories that seem to behave similarly. Instead of viewing these works as repetitive, they can be analyzed in terms of a strange attractor for their innate diversity.

The final work in the unexpected trilogy is *La Vérité sur Marie* which serves as a flashback on the narrator and Marie's time in Japan. The novel begins in Paris with the death of Marie's current lover in her apartment during a violent rain storm. She calls the narrator to come over despite the fact they are no longer together. He traverses Paris, leaving his current lover who is also named Marie, with the storm raging, setting the tone for his phase space. Their encounter reflects the storms rage, and as in Japan, they try to make love but cannot. The narrator learns that the lover who just died of a heart attack in her apartment was a man she met while in Japan for her exposition as presented in *Faire l'amour*. Like *Fuir* (and other Toussaint novels such as *La Salle de bain*), *La Vérité* is composed of three chapters. The first chapter describes the scene in Paris, while the second describes the flashback to Japan where Marie encountered her other lover. The third, as in *Fuir*, takes place in Ile d'Elbe. This chapter structure offers another resemblance between the phase spaces of the three novels.

While the second chapter focuses primarily on Marie and her lover in Japan, the context is her return with him to Paris. He owns a famous race horse which is suspected of having been given performance enhancing drugs. Unexpectedly, the narrator runs in to Marie at the race track with her future lover. The narrator recognizes this seemingly impossible encounter:

> What was I doing there? I should have never without a doubt been there, the probability that I would go to the race track on this day in Tokyo was small (I had happened to stumble by chance that morning on an article from the *Japan Times* which announced the race), and the probability that Marie would be there at the same time was pretty much nil. I was however suddenly confronted unexpectedly with Marie's presence. (146-147)[300]

As previously mentioned in Chapter Three of this dissertation, Schoots characterizes the novels published by the Editions de Minuit as being a series of invisible causes. Viewed through the lens of strange attractor theory, the trajectory of a point is extremely sensitive to initial conditions, all of which cannot be known. So, Schoots's invisible causes can be reinterpreted as unknown initial conditions driven by a strange attractor that pervade Toussaint's fiction and influence a point's future trajectory. In this instance, the reader knows the narrator consulted *The Japan Times*, but does not know what other initial conditions influenced his choice to actually go to the race track (nor the conditions which led to Marie agreeing to go to the race track with her lover, Jean-Christophe de G) other than to acknowledge that Marie is his strange attractor and as such, the narrator is moving within her basin of attraction. Consequently, not all trajectories can be anticipated or explained.

Marie's lover then asks her to fly back with him and the horse to Paris. She agrees to return with him while the narrator, unbeknownst by Marie, is visiting his friend in Kyoto as presented in *Faire l'amour*. The chaotic trek from the hotel to the Narita airport with the horse is exemplary of the phase space Marie generates. The terrible storm that night in addition to Marie's last minute packing adds to the chaos encountered at the airport when the horse escapes its handlers and bolts across the airport property into the

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[300] Que faisais-je là? Je n'aurais sans doute jamais dû me trouver là, la probabilité que je me rende aux courses ce jour-la à Tokyo était infime (j'étais tombé par hasard le matin sur un article du *Japan Times* qui annonçait la réunion), et la probabilité que Marie y soit en même temps que moi était quasiment nulle. J'étais pourtant soudain confronté à l'improviste à la présence de Marie.

darkness. While a linear analysis might characterize the environment as a mirror reflecting Marie's character, a phase space perspective allows the events to be seen as a result of the environment she engenders. The horse is recaptured, but the flight back to Paris is as tumultuous and stormy physically as Marie's time in Japan in *Faire l'amour* or the narrator's in China in *Fuir*. Like chaotic systems that focus on recursive symmetries across different levels, these works by Toussaint present similarities across all "levels" of the narrative whether that be the physical location (China, Japan, Ile d'Elbe) or events (the earthquake, the stormy plane ride, or the overnight train from Peking to Shanghai).

Similar to *Fuir*, the third chapter opens calmly in Ile d'Elbe in stark contrast to the chapter dedicated to Marie's time in Japan. Marie has invited the narrator to the island after the death of her lover. However, the story ends with a fire ravaging some stables near Marie's house causing complete chaos on the mountain where she lives as well as in the lives of the narrator and Marie. Until this point, the narrator and Marie were not romantically involved. After the fire however, they do make love, "softly", perhaps for the first complete time in the trilogy. Chaos still looms as the narrator notes that Marie's skin still smells of fire (205). Instead of comparing her skin to smelling of smoke, the analogy with fire suggests that more unpredictability is probable. He is still in the phase space of his strange attractor filled with chaotic possibilities.

It is uncertain as to whether he and Marie have really broken up. As the narrator stated in *Faire l'amour*, "Breaking up. But breaking up, I began to realize, was more a state than an action" (106).[301] Stump asserts that

> the end of the affair [between Marie and the narrator] is always there, looming, and at the same time always fading [...] in a sense those words [about breaking up] might well be speaking of *both* novels (*Fuir* and *Faire*

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[301] Rompre. Mais rompre, je commençais à m'en rendre compte, c'était plutôt un état qu'une action

> *l'amour*): the subject of each is an end (of a love affair, of a life), and each tells the story that arrives at the end, and yet something about that end prevents it from ending the events that preceded it. (106)

Stump was strictly speaking about *Faire l'amour* and *Fuir*, but his comment also applies to *La Vérité*: Jean-Christophe de G. has died, and the love affair between Marie and the narrator is still questionable. Building on Stump's analysis, this investigation proposes that indeed breaking up is a state found in the phase space generated by Marie. As such, this state will continually influence the narrator's trajectory. Stump characterizes Toussaint's *oeuvre* as one that demonstrates "a consistent refusal to conclude" (99). This accurate evaluation of Toussaint's work serves as a pertinent description of the strange attractor force present in at least the Marie trilogy explored in this chapter. A detailed examination of this "unfinished" state will be examined in the next section when both Marie and the narrator are analyzed as strange attractors. As both serve as strange attractors and the point system orbiting the attractor, they can be interpreted as fractal entities in Toussaint's fiction suggesting further "incompleteness".

Engendering Phase Space: Haiti or Writing Chaos

If Toussaint offers an example of a traditional narrative in which are located strange attractors, Ernaux's texts migrate away from fiction toward reality in the form of autobiography and a diary.[302] Frankétienne's texts, excepting *Ultravocal*, are situated opposite Toussaint's *oeuvre* on the narrative spectrum as they generally reject the form of traditional narrative in favor of prose that directly communicates reality. *Brèche ardent* is a work composed of poetry and prose fragments much like his other "spirals", through which Frankétienne may be speaking. A first person narrator claims "From a writing-

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[302] See Chapter Three for a detailed discussion of the autobiography and the diary genres.

chaos for a chaotic work with a fictive and phantasmagoric dimension in search of the essential, I abhor the anecdotic as much as insipid, narrative recipes" (162).[303] Ordered structure for presenting reality is renounced, in favor of a "writing-chaos." The directness with which the narrator addresses the reader is similar to Ernaux's approach in many of her works, including *Passion simple* and *L'Occupation* in which the narrator resembles Ernaux herself who privileges nonfiction instead of fiction. Consequently, Frankétienne's and Ernaux's phase space, composed of nonfiction, pertinently offers a demonstration of contemporary chaos.

As discussed in Chapter Three, Frankétienne foregrounds the effects of language in exchange for a dearth of narration. Indeed the back covers of many of his works affirm that "the notion of schizophony […] allows words to be treated as particles of sensual energy in perpetual movement inside the text."[304] Accordingly, words in his texts, more than action, as the words themselves represent energy, will constitute the phase space in his works. Indeed, Toussaint asserts this interest in textual energy in his interview with Huy:

> Since some recent books, for me, it's not the story that the book tells neither the ideas that it develops, it is not – or not only – the beauty, the light or the poetry ; the priority in my latest novels, it's what I call "novelistic energy" this something invisible, burning and quasi-electric which surges at times from immobile lines of a book […] Henceforth, one of my priorities is the search for energy, my books can no longer be static […] they must be dynamic, I must be in the movement, the chase, the panic. (102)[305]

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[303] D'une écriture-chaos pour une œuvre chaotique à dimension fictive et fantasmagorique en quête de l'essentiel, j'abhorre l'anecdotique autant que les recettes narratives insipides.

[304] la notion de schizophonie […] permet de traiter les mots comme des particules d'énergie sensuelle en perpétuel mouvement à l'intérieur du texte.

[305] Depuis quelque livres, la priorité, pour moi, ce n'est pas l'histoire que le livre raconte ni les idées qu'il développe, ce n'est pas – ou pas seulement- la beauté, la lumière ou la poésie ; la priorité, dans mes derniers livres, c'est ce que j'appelle l' « énergie romanesque », ce quelque chose d'invisible, de brûlant et de quasi électrique qui surgit parfois des lignes immobiles d'un livre […] Dès lors qu'une de me priorités

Toussaint and Frankétienne realize textual energy through different means: Toussaint through a more traditional narrative framework and Frankétienne through his spiral esthetic. However, these two authors from vastly different social and political situations do share a common thread: the importance and purpose of producing and representing energy in their texts as it generates and sustains chaos.

In a strange attractor system, order is often deeply embedded in the system. In the spiral *La Diluvienne*, repetitions of the phrase "by day as by night"[306] appear approximately 39 times often proceeded by the phrase "It was dark."[307] Similar to Frankétienne's other works, no narrative "recipe" exists and the reader is left to her own abilities to interpret the spiral text. Repetitions, as analyzed in Chapter Three, offer an indication of a textual instability where the text will bifurcate into continued chaos or a novel order. They can also be considered as patterns of deep order in a text. Thus, instead of viewing repetitions as self-organizing instruments, they could indicate a pattern of complex textual order. As such, the text offers the reader some reference points. In Frankétienne's texts, amidst the ever present textual disorder, this phrase in *La Diluvienne* serves to reinforce the extremely bleak and dark status of Haiti. This constant darkness, both night and day, is an excellent image of a black hole or a vacuum where no light exists which is Haiti.

Similarly, in his image-textual spiral work *Galaxie Chaos-Babel*, which is comparable to the format of *H'Éros-Chimères* but is a volume of over 800 pages, there are examples of phrase fragments which repeat. Not only do these fragments offer

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est la recherche d'énergie, mes livres ne peuvent plus être statiques […] ils doivent être dynamiques, je dois être dans le mouvement, la poursuite, l'affolement.

[306] de jour comme de nuit

[307] Il faisait noir

pockets of order throughout the text, they also effectively describe Frankétienne's phase

space. On pages 9 and 98, the reader finds the fragment:

> The essence of writing
> In the energy of the verb
> The intensity of saying
> The atrocious persistence
> To explore the explosive volcanoes
> Until the echoes of vocal dissonances and the unharmonious harmony give
> a sense to the chaos and that the babel becomes music.[308]

On one level, the writing offers order amidst a collection of diverse images composed of

hand drawings and typed fragments. On a second level, this fragment suggests that order

can be found in chaos: if writing is forced to explore its limits it can give meaning to

chaos and what the listener perceives as disordered speech becomes auditory sensations

that transcend words. The auditory sensations offer deep order amidst the babel of words.

Likewise, the narrator confirms the fragmented nature and purpose of energized words in

Brèche ardente: "Spiral writing? The absence of meaning. Or rather an immense choice

of surprising semantic variations implicating the tension and outburst of each textual

fragment in a plurality of meanings" (19).[309] These patterns are thus situated in phase

space around a strange attractor. Consequently, the reader can resist the notion of

narrative continuity in favor of disjointed but discreet linguistic fragments around one

point of order. As will be discussed below, unlike Toussaint and Ernaux whose strange

attractors share a connection with love and jealousy, for Frankétienne, the poet and

poetry themselves will serve as the strange attractors in his texts.

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[308] L'essence de l'écriture/dans l'énergie du verbe/l'intensité du dire/la persistance atroce/d'explorer les volcans explosifs/jusqu'à ce que les échos des dissonances vocales et des accords disharmonieux donnent un sens au chaos et que babel devienne musique.

[309] L'écriture spirale? L'absence de sens. Ou plutôt un immense éventail de variations sémantiques surprenantes impliquant la tension et l'éclatement de chaque fragment de texte en une pluralité de sens."

The narrator in *Brèche ardente* declares: "I don't describe either the decor of the evident and tangible anarchy, or the morphological aspects of chaotic space, or the disorder of deconstructed time. I write chaos. I write babel. I write spiral" (162).[310] Words become energized and actionable rather than descriptive. Furthermore, the homophony of the words in French with "j'écris" ("I write") can also sound like "je cris" or "I cry" in which case the text could be translated "I cry chaos. I cry babel. I cry spiral." This concept of crying out, of sound emerging from the written word, reinforces the energizing power of auditory sensations to organize chaos.

On pages 14 and 68 of *Brèche ardente*, the following phrase repeats:

Chance still remains
Infinitely fertile
To recover the plural sense
And the female beauty of the bodies in a trance
The secret copulatory harmony
Of the locks and keys
In enigmatic connivance.[311]

This fragment reinforces the constructive element of chance: it can reveal order, however hidden even between two people. This conclusion also recalls the structure present in Toussaint's texts: the meaning or sense is unresolved but this does not suggest that no deep order exists but simply that it may need more revelation.

Frankétienne claims that Haiti is the source of inspiration for his spiral writing which is based on chaos as stated in an interview with Delaporte from *L'Humanité* in 2004: "Fundamentally, Haiti could not be absent from my work and it's her that inspired

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[310] Je ne décris ni le décor de l'anarchie évidente et tangible, ni les aspects morphologiques de l'espace chaotiques, ni les dérèglements du temps débricolé. J'écris chaos. J'écris babel. J'écris spirale.

[311] La chance demeure encore/infiniment féconde/de retrouver le sens pluriel/et la femelle beauté des corps en transe/la secrète harmonie copulatoire/des serrures et des clés/en connivence énigmatique.

my spiral esthetic"("La Spirale").[312] Accordingly, this analysis suggests that Haiti is the primary basin of attraction for the strange attractors in his texts. Haiti is indirectly and directly evoked in his works. In *Ultravocal* for example, the island of Mégaflore is analogous to Haiti, and it is here that Vatel, the poet must battle Mac Abre and the fatal silence and destruction he is trying to instill in the country. In *Galaxie Chaos-Babel*, Haiti is explicitly described on pages 28 and 216:

> Haiti is not exclusive to disastrous crises
> The entire planet is in a convulsive crisis aggravated by psychosomatic
> viral problems.
> Human civilization in a *vaglindeuse* and difficult epileptic crisis.[313]

This Haiti fragment is repeated reinforcing its function as the basin of attraction for the texts and Frankétienne's spirals in general. In *Brèche ardente*, the narrator asserts: "The spiral is at the heart of chaos, because the world is a chaotic, functioning mass. Authentic writing can only be babelian. The universe has no precise or rational meaning" (20).[314] Thus, Ernaux's France and Toussaint's Asia are just as likely basin of attractions for chaos as is Haiti. While Frankétienne explicitly names Haiti as a source of chaos, other locations around the world are equally valid as presented in Ernaux's and Toussaint's works. Consequently, this conclusion offers an alternative vision to a traditional postcolonial one which opposes Western order to the disorder in former colonies.

In *Brèche ardente*, the narrator claims "the vocabulary of chance and its ephemeral, anonymous and sinuous lucidities and its lively interlacing of great, opaque

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[312] Fondamentalement, Haïti ne peut pas être absente de mon travail et c'est elle qui m'a inspiré l'esthétique de la spirale.

[313] Haïti n'a pas l'exclusivité des crises désastreuses./Toute la planète est en crise convulsive envenimée de déblosailles virales psychosomatiques./L'humaine civilisation est en crise d'épilepsie vaglindeuse malouque.

[314] La spirale est au cœur du chaos, car le monde est une masse chaotique fonctionnelle. L'écriture authentique ne peut-être que babélienne. L'univers n'a aucune signification précise et rationnelle.

lights [are] buried in the very depths of mute metamorphoses" (161).[315] The content of his phase space, the text, will imitate the sinuous oscillations around his strange attractors. As Haiti serves as the model for expressing chaos in phase space, there is an absence of characters and thus men and women. Consequently, Frankétienne focuses less on gender and more on words which create the chaos. Indeed the image of Babel is incorporated frequently in his works reinforcing the idea that language is at the foundation of chaos.

Considering each writer's text as a phase space allows the reader to focus on characteristics specific to the strange attractor. As such, diverse works can be effectively compared using similar criteria. Trajectories in these phase spaces are often fractal in nature thus not completely belonging to one dimension. For literary texts, this holds two implications: not only can the notions of identity, love and language be viewed as fractal within their own phase space, but the texts themselves can be considered as not belonging specifically to one genre, but instead as having a main characteristic, a point of deep order, which allows these texts to be compared despite cultural, political and social situations surrounding their creation or generic associations. The point of deep order in Ernaux's, Toussaint's and Frankétienne's texts are diverse, but all three writers offer the possibility to view chaos not as a gendered and geographically anchored quality but as a more neutral, universal and fluid energy around which chaos with deep order is generated.

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[315] le lexique du hasard et ses clartés anonymes éphémères et sinueuses au vif entrecroisement des grandes lumières opaques [sont] enfouies jusqu'au tréfonds des muettes métamorphoses.

Strange Attractors: Ungendering Chaos

Allowing characteristics traditionally associated with men and women to become comingled offers the opportunity for new insights into contemporary literary texts: the role of men and women in literary texts no longer need be solely discussed in terms of traditional gender roles. A similar phenomenon is occurring within the sciences as Hayles notes:

> For many scientists […] chaos is more than just another theory. It represents an opening of the self to the messiness of life, to all the chaotic unpredictable phenomena that linear science taught these scientists to screen out. Once roused, they remember that the messiness was always there. Moreover, now they are able to see nonlinearity in a new light, perceiving it as central rather than marginal, beautiful rather than aberrant. Chaotic unpredictability and nonlinear thinking, however, are just the aspects of life that have tended to be depicted as feminine. Indeed chaos itself has been depicted as female. (*Chaos Bound* 173)

Feminists such as Beauvoir and Cixous, as cited above, have clearly predated chaos theory's "revelation" at the centrality of the beauty of "messiness." Cixous claims in "Le Rire de la Méduse" ("The Laugh of the Medusa") that "Men say there are two unpredictable things: death and the feminine sex" (885). However, she asserts that men only have to look Medusa in the eye to see she is not aberrant and deadly but that "She's beautiful and she's laughing" (885). Nevertheless, chaos theory is now offering another optic through which literature can view this "messiness." The notion of disorder or the use of this notion to represent the lack of logic and understanding of human beings in their natural and social environment has always existed in society, and French literature prior to the twentieth century generally tried to order the presentation of this chaos. From surrealism to the New Novel in the twentieth century, however, the illustration of chaos occupied a central force in literary creation as discussed in Chapter One. Furthermore, the production of literary texts in France since the New Novel has often been characterized as

the demise of French literature as no particular school or philosophy seemed to emerge

compared to the appearance of a more coherent body of works in Francophone countries.

However, as Hippolyte affirms,

> besides the shift in nomenclature, the break from the traditional "schools"
> and "movements" is of momentous importance. Instead of testifying to a
> lack, or to an irreversible decadence […] this shift resonates as an
> affirmation of diversity, or a multifaceted environment in which the
> individual writer evolves, seeking his or her own intertext […] the
> turbulences agitating the field of French literature are opening up exciting
> new horizons. (7)

Ernaux's, Toussaint's, and Franketienne's texts are participating in this liberating

turbulence and reveal the "messiness" of contemporary society in order to elaborate a

new horizon for literary criticism.

Gender analysis viewed through the notion of strange attractors offers an

innovative tool for study into this chaos as gender categories, once obliterated, then

reclaimed by feminists critics, tend to blur. Similar to science, new paradigms are now

available to analyze texts from a different perspective. As Hayles claims,

> Researchers interested in chaos theory are returning to […] "noisy data"
> and testing them for the characteristic patterns they have learned to
> recognize; in a significant number of cases, the patterns were there. It
> seems clear that they were not noticed before because no paradigm existed
> through which they could be understood. (*Chaos Bound* 145)

The identification of strange attractors in Ernaux's, Franketienne's, and Toussaint's texts

is now made possible by the application of chaos theory as a new paradigm to explain

their patterns and the "ungendering" of chaos. If literary analysts previously "knew" or

asserted similar gender patterns of both order and chaos existed in men and women,

paradigms to underscore this migration were often justified through psychology or other

modern "-isms": structuralism, deconstructionalism, postcolonialism or postmodernism

for example. This is not to suggest that men and women approach life, compose texts and read them in a similar way, for certainly differences exist. Strange attractors, though, do offer an ungendered perspective of chaos as the system is determined by initial conditions and not gender. As such, both men and women characters will serve as strange attractors in the fictions of Ernaux, Toussaint and Frankétienne. These strange attractors will equally influence male and female characters similar patterns of chaos and "messiness." Consequently, both women and men can be associated with order and chaos.

The Charm of Ambiguity: Identity, Jealousy and Desire

Ernaux's works *Passion simple* and *L'Ocupation* each contains an attractor: male and female respectively. In *Passion simple*, it is A., her lover from which she awaits a telephone call indicating he is coming to see her. All of her activities are centered around him. While her actions may be chaotic, he is the order or sense at the core of these actions. The narrator claims:

> I used to try to go out the least possible outside my professional obligations – of which he had the schedule -, always fearing to miss a call from him during my absence. I also avoided using the vacuum cleaner or the hair dryer which would have kept me from hearing the phone ring (16).[316]

Not only does she alter her personal routine, but her professional one as well:

> I refused violently additional work that my director requested of me, nearly insulting him on the phone. It seemed to me that I had every right to oppose that which would prevent me from giving myself over completely,

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[316] J'essayais de sortir le moins possible en dehors de mes obligations professionnelles – dont il avait les horaires -, craignant toujours de manquer un appel de lui pendant mon absence. J'évitais aussi d'utiliser l'aspirateur ou le sèche-cheveux qui m'auraient empêchée d'entendre la sonnerie.

without limits, to the sensations and imaginary narratives of my passion. (41)[317]

The narrator's lack of professional reasons for refusing additional work seems unfounded. However knowing A. is the strange attractor driving her motivations, the reader recognizes that her actions appear to follow an order while her boss may not. Similarly, Hawkins describes a particle under the influence of a strange attractor as one that "while remaining in some bounded region of space […] will continue to move wildly and erratically. Thus although the motion is specified by precise laws, the particle behaves as if it were moving randomly, and there is no way to predict its future path" (126-127). Deterministic chaos is described by precise laws although without knowing these laws, the trajectory can appear random. Neither the narrator nor her boss could have predicted her nearly insulting refusal of more work. Before A., the professional laws she used to follow included punctuality, efficiency, performance and respect for hierarchy in her department. The rules she is now following however, are dictated by her passion for A. which causes her actions to appear random to an outsider. She is clear that she does want to remain in this state despite her actions: "I avoided situations which could have removed me from my obsession, readings, outings and all activity for which I had previously an interest" (41).[318] If Merleau (86) advocates that Ernaux's repetitive confessions of her obsessions are a result of humans being "in love with, obsessed by, our destructive symptoms," strange attractors allow an alternative interpretation: repeatedly

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[317] J'ai refusé avec violence une charge supplémentaire de travail que mon directeur me réclamait, l'insultant presque au téléphone. Il me semblait que j'étais dans mon bon droit en m'opposant a ce qui m'empêchait de m'adonner sans limites aux sensations et aux récits imaginaires de ma passion.

[318] J'évitais les occasions qui pouvaient m'arracher à mon obsession, lectures, sorties et toute activité dont j'avais le goût avant.

confessed, obsessive behaviors are simply driven by a strange attractor that needs to be fleshed out for investigation.

> As with a strange attractor, the narrator is attracted to but also repelled from A.:

> Without end the desire to break up, to no longer be at the mercy of a call, to no longer suffer, and as soon as the representation of what that supposed at the minute of the rupture: a suite of days with nothing to wait for […] But next to the foreseen nothingness, my present situation seemed happy to me, my jealousy a sort of fragile privilege of which I would have been crazy to desire the end. (45-46)[319]

As such, her lack of rational objectivity, often associated with women, can be interpreted as an effect of a nonlinear system. Situated in his phase space, she will naturally be attracted and repelled by him. Upon seeing A. nearly a year later when he came to Paris, the narrator realizes "this return, unreal, nearly inexistent, […] gives to my passion all of its sense […] to not have it, to have been for two years the most violent reality there was and the least explainable" (75).[320] Even the narrator herself cannot explain the passion. This analysis suggests this is not because this passion was inspired by madness, but that it was part of a larger chaotic system with order deeply imbedded. Indeed, scientists struggle to understand why a chaotic system, which is highly divergent in its trajectories, would nearly return consistently to a certain point. The object of their exploration is not considered madness and neither should the narrator's time spent in the phase space of A. As such, her "mad passion" rather than being attributed to feminine chaos can only be attributed to nonlinear behavior of a strange attractor system.

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[319] Sans cesse le désir de rompre, pour ne plus être à la merci d'un appel, ne plus souffrir, et aussitôt la représentation de ce que cela supposait à la minute même de la rupture : une suite de jours sans rien attendre […] Mais à côté du néant entrevu, ma situation présente me parait heureuse, ma jalousie une sorte de privilège fragile dont j'aurais été folle de désirer la fin.

[320] Ce retour, irréel, presque inexistant […] donne à ma passion tout son sens […] de ne pas en avoir, d'avoir été pendant deux ans la réalité la plus violente qui soit et la moins explicable.

Likewise, Ernaux's work *L'Occupation* demonstrates that deep order can be also be generated by a woman. She admits:

> This woman filled my head, my chest, my stomach, she accompanied me everywhere, dictated my emotions. At the same time, this uninterrupted presence made me live intensely. She provoked interior movements that I had never known, deployed in me an energy, resources of invention of which I didn't believe myself capable, kept me in a feverish and constant activity. I was in both senses of the word, occupied. (14)[321]

The narrator clearly vocalizes the positive influence this strange attractor has for her, affirming chaos's creativity. In many ways, this characterization accurately describes the situation in *Passion simple*: with A., the narrator admits at the end of the work: "It seems to me now that luxury is also the ability to live a passion for a man or a woman" (77).[322] If Thomas accurately suggests that for the narrator, her experience with A., while still maintaining a tension between pain and pleasure, has shown her that "passion is defined as a gift," (69) this analysis would suggest that the chaos of passion is not just a gift but a positive result that can be generated by either a man or a woman serving as a strange attractor.

As with A. in *Passion simple*, the woman in *L'Occupation* is ever present in the narrator's life. While the narrator never encounters the woman the way the narrator in *Passion simple* encounters A., she still acts on her at a distance: "This transubstantiation of the bodies of the women that I encountered in the body of the other woman occurred

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[321] Cette femme emplissait ma tête, ma poitrine et mon ventre, elle m'accompagnait partout, me dictait mes émotions. En même temps, cette présence ininterrompue me faisait vivre intensément. Elle provoquait des mouvements intérieurs que je n'avais jamais connus, déployait en moi une énergie, des ressources d'invention dont je ne me croyais pas capable, me maintenait dans une fiévreuse et constante activité. J'étais au double sens du terme, occupée.

[322] Il me semble maintenant que [le luxe] c'est aussi de pouvoir vivre une passion pour un homme ou une femme.

continually: I "saw her everywhere" (18).[323] As such, her strange attractor exhibits fractal characteristics: she is not completely contained within herself, but parts of her can be found in others as well as in the narrator. As stated in the early part of this chapter, the narrator sees this woman in other women professors and other women she meets in the metro (16-17). Thus, the narrator is in a way 'occupied' by her strange attractor as are other women she encounters, unbeknownst to them. As discussed in Chapter Three, identity found in others is a theme in Ernaux's works. This theme is not uncommon in literature, but viewing identity as fractalized can be considered a more contemporary approach of this theme. The narrator in *L'Occupation* at the end of the work situates her strange attractor's identity externally and equally unknown to the anonymous woman: "I succeeded in filing up with words the image and the absent name of her who, for six months, continued to put on makeup, attend to her classes, to speak, and to orgasm, without suspecting that she was living elsewhere, in the head and the skin of another woman" (74).[324] Consequently, Ernaux suggests, as she does in *Journal du dehors,* that parts of ourselves are found in others as parts of them are found in us. In this way, the identity becomes less about the individual and more about the collective, less about roots, and more rhizomatic, less linear and more dynamic and unpredictable. Hippolyte describes contemporary subjects as

> a fuzzy subject, caught between presence and absence, never fully realized
> but always already there, and, for all we can see, he or she seem pretty
> content with being so. In this fuzzy world names and identities may be
> freely exchanged, and traded, for undefined periods of time, as characters
> hopscotch among incarnations, allowing the story to jump from one nodal

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[323] Cette transsubstantiation du corps des femmes que je rencontrais en corps de l'autre femme s'opérait continuellement: je la "voyais partout."

[324] J'ai réussi à combler de mots l'image et le nom absent de celle qui, durant six mois, a continué de se maquiller, de vaquer à ses cours, de parler et de jouir, sans soupçonner qu'elle vivait aussi ailleurs, dans la tête et la peau d'une autre femme.

point to the other, in a manner that is reminiscent of baroque narrativity. (239)

Instead of being fuzzy, this analysis suggests they become fractal which allows comparisons of various characteristics across groups of subjects rather than just across individuals. As fractals populate chaotic systems, chaos must become an intrinsic aspect of identity and must necessarily be located in both men and women offering another example of the "ungendering" of chaos.

Furthermore, as with A., the narrator in *L'Occupation* prefers to remain in her "occupied" state: "if my suffering seemed absurd to me, indeed scandalous in regards to others, physical or social, if it seemed a *luxury* to me, I preferred it to certain tranquil and fruitful moments in my life" (54).[325] Jealousy was a state of mind, a habit attached to the individual which the narrator projects on the collective: "The most extraordinary aspect of jealousy, is to populate a city, a world, with a being that one has never met" (20).[326] However, it is through this jealousy that she is able to see herself in others as well as others in others and others in herself. While jealousy may be judged to be a debilitating state, the narrator sees it as a creative point. Her strange attractor, this unknown woman, drove her to extreme jealousy and desire but immense creativity at the same time (14).

In addition to creating a fractalized identity, she also judges jealousy and desire as fractalized: "It's no longer *my* desire, *my* jealousy, which are in these pages, but it is *of* desire, *of* jealousy and I work in the invisible" (48).[327] Identity, jealousy and desire no longer need to be viewed as unitary and well-defined but as partitive and creative as they

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[325] Si ma souffrance me paraissait absurde, voire scandaleuse par rapport à d'autres, physiques et sociales, si elle me paraissait un luxe [my emphasis], je la préférais à certains moments tranquilles et fructueux de ma vie.

[326] Le plus extraordinaire dans la jalousie, c'est de peupler une ville, le monde, d'un être qu'on ne peut n'avoir jamais rencontré.

[327] Ce n'est plus *mon* désir, *ma* jalousie, qui sont dans ces pages, c'est *du* désir, *de la* jalousie et je travaille dans l'invisible.

exist as fractal entities possessing innate chaos. The narrator ultimately separates herself from her individual subjectivities to regard her experience in terms of a systemic perspective: "The dignity or indignity of my conduct, of my desires, is not even a question that I ask myself on this occasion, no more than I ask myself the question now in writing. It occurred to me that t is at the price of this absence that one attains the surest truth" (40).[328] Removing her personal subjectivities and viewing her situation across recursive levels of existence, whether that be through jealousy or desire, allow her understand the truth about her identity and ultimately about others.

Finally, as the narrator in *Se perdre* considers breaking up with A., the narrator in *L'Occupation* contemplates "breaking up" with this occupation but cannot. As will be discussed below in Toussaint's texts, "breaking up" is a state of being rather than a solitary action. The narrator admits:

> More and more, at certain moments, it appeared fugitively to me that I could cease this occupation, break with the evil spell, as easily as going from one room to the other, or as going out in the street. But something was missing, of which I didn't know where it would come from – chance, externally, or even myself. (68) [329]

Like a chaotic system, she cannot identify the exact force that holds her in orbit around her strange attractor. In a strange attractor system, the path of the orbits is a fractal one. As with the Moebius strip, the path of the trajectory is not quite in one solitary dimension, but is between two dimensions. Likewise, this force is also fractal: it could come from chance, outside of her or from her, but does not come from one origin. As a

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[328] La dignité ou l'indignité de ma conduite, de mes désirs, n'est pas une question que je me suis posée en cette occasion, pas plus que je ne me la pose ici en écrivant. Il m'arrive de croire que c'est au prix de cette absence qu'on atteint le plus sûrement la vérité.

[329] De plus en plus, à certains moments, il m'apparaissait fugitivement que je pourrais faire cesser cette occupation, rompre le maléfice, aussi simplement qu'on passe d'une pièce dans une autre ou qu'on sort dans la rue. Mais quelque chose manquait, dont je ne savais pas d'où cela viendrait – du hasard, du dehors, ou bien moi-même.

result, all three entities, chance, the external world, and her own person fractionally influence her inability to free herself from her strange attractor.

A Contemporary Human Comedy of Orderly Chaos

If Ernaux's diaristic texts, viewed through strange attractors, offer instead of an investigation on repetitive (re)confessions of a jealous and obsessed lover, one in which identity, jealousy and desire can be explored across fractal dimensions, Toussaint's book series, centered on Marie, offers an example of a contemporary human comedy which privileges the migration of gendered qualities such that they become indistinguishable. Toussaint exclaims to Huy: "The coexistence of opposed extremes is one of the greatest riches of literature. Literature permits this ambivalence. In a book, one can be at once imminently masculine and imminently feminine" (102).[330] While Toussaint situates states of being masculine and feminine as "opposed extremes", this analysis posits that these extremes are quite similar. Consequently, masculine and feminine qualities become less a mark of order and chaos specific to men or women and more a more general mix of chaos and order shared by both.

Toussaint's works *Faire l'amour*, *Fuir* and *La Vérité sur Marie* are, as Demoulin characterizes in an analysis included in the 2009 printing of *Faire l'amour,* a "micro human comedy […] a *work in progress*" (156).[331] Each novel presents a time period in the relationship between the narrator and Marie. Unlike a traditional series of novels following certain characters, these can be read independently and in any order. The

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[330] La coexistence d'extrêmes opposés est une des plus grandes richesses de la littérature. La littérature permet cette ambivalence. Dans un livre, on peut être à la fois éminemment masculin et éminemment féminin.

[331] Micro-comédie humaine […] un *work in progress*.

reader will quickly realize that although Toussaint wrote *Faire l'amour* before *Fuir* followed by *La Vérité*, the temporality of the narrative actually situates *Fuir* first, followed by *Faire l'amour* and then *La Vérité*. As Demoulin notes:

> The collection obeys, moreover, the same rules as the novels taken separately: a certain narrative reconstruction takes place, but it is fragmented and open, leaving room to some extent for deconstruction, uncertainty, and fragmentation and "false anecdotes." Certain threads are woven from one novel to the next; others are abandoned even though they demand a resolution. (156-157)[332]

If Balzac's nineteenth century realist work, *La Comédie humaine* (*The Human Comedy,*) proposes to use the models and the concepts of science of his time for analyze contemporary society, Toussaint's "micro" human comedy reflects contemporary notions of unpredictability and openness without offering a requisite explanation. [333]

Indeed, Stump describes a consistent thread throughout Toussaint's entire *oeuvre*, of which his "Marie series" offers a micro study: "an aspect of Toussaint's writing that has not changed all that much in the past twenty years, except to grow more insistent, more multiplicitous in its effects, and more varied in its forms: a consistent refusal to conclude" (99). Undeniably, Stump's characterization of Toussaint's works reflects the pattern of a chaotic system which bifurcates. If Balzac's scientific study of society emphasizes causality, Toussaint's emphasizes vagueness and unpredictability. However, seen through the optic of chaos and strange attractors, this "refusal to conclude" is less a refusal than an explicit emphasis on openness and bifurcations. Consequently, Toussaint's entire body of works could be seen as a contemporary human comedy which

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[332] L'ensemble obéit d'ailleurs aux mêmes règles que les romans pris isolément : une certaine reconstruction narrative a lieu, mais elle est parcellaire et ouverte, laisse place à une part de déconstruction, d'incertitude, de fragmentation et de "fausse anecdote." Certains fils sont tissés d'un roman à l'autre, d'autres sont abandonnés alors même qu'ils demandaient encore une résolution

[333] For further reading on Balzac and this topic, see Pierre Citron, *Dans Balzac* (Paris: Seuil, 1986), Pierre Barbéris, *Balzac et le mal du siècle* (Paris: Gallimard, 1970), Pierre-Georges Castex ed., *Nouvelles lectures de la Peau de chagrin* (Presses de l'Université de Clermont-Ferrand, 1979).

underscores the unpredictability of social influences and interactions, with his "Marie

series" serving as a "micro" study because, as Stump asserts,

> Vague, apparently aimless, [Toussaint's] novels seem to be made up of
> inconclusive or incomplete events […] Because of this directionless
> quality, the reader finds it difficult to assemble the novel's episodes into
> one coherent, fully-motivated narrative; hence the frequently repeated
> claim that "nothing happens" in Toussaint's novels. (99)

This difficulty to assemble episodes becomes more acceptable if the inclination to seek

out cause and effect is replaced by a willingness to view vagueness and aimlessness not

as inconclusive but as burgeoning with possibilities. The contemporary human comedy

thus cannot be analyzed through the lens of cause and effect, but one combining

nonlinearity, randomness and yet, deep order amid chaos in some instances. Furthermore,

this vagueness should not be misinterpreted for rejecting the goals of literature

representing life and reverting to reckless conceptions of the literary. On the contrary,

Stump advocates:

> We should see the vagueness of this and Toussaint's other novels not as
> some sort of gratuitous, quirky play with the reader's expectations, but as
> the expression of a coherent creative stance: an opposition to ends and
> ending, and a championing of mutability and potential. (100)

Chaos theory and strange attractors afford the reader the proper tools to analyze

Toussaint's pattern of remaining open. Toussaint characterizes this preference in an

interview with Huy claiming he likes: "the idea of an echo, with reciprocity of the wave,

invisible, immaterial" (103).[334] Echoes are open-ended and serve as a good metaphor for

the influence and reach of a strange attractor. As such, in his "Marie series", echoes of

different themes appear, particularly that of chaotic attraction and repulsion between

lovers.

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[334] cette idée d'écho, avec la réciprocité de l'onde, invisible, immatérielle.

Both Marie and the narrator in this micro-human comedy serve as strange attractors for each other. In *Faire l'amour*, the narrator questions his accompanying Marie to Japan for her fashion exposition:

> Was it the best solution to travel together if only to break up? In a certain way, yes, because as much as proximity tore us apart, distance would have brought us together. We were in effect so fragile and disoriented emotionally that the absence of the other was without a doubt the one thing that could bring us closer, while each other's presence, on the contrary, would only accelerate the current affliction and cement our rupture. (22)[335]

In their chaotic state, they each continue to "orbit" the other without a solution to their suffering. They also seem to fluctuate on whether the presence or absence of the other is repulsive or attractive. Ultimately, the narrator declares in *Faire l'amour*: "We used to love each other, but we could no longer stand each other. There was this aspect now, in our love, that, even if we continued on the whole to do each other more good than bad, the little bad that we did to each other had become unbearable" (68-69).[336] This intolerance in their love could be interpreted as the repelling force of the strange attractor that maintains them in a constant state of chaos.

The irreversibility of time propels them both forward in this state and the narrator reflects:

> Despite my immense fatigue, I began to hope that the day would not rise on Tokyo this morning, would never rise and that time would stop here, at this moment in this restaurant in Shinjuku where we were so good, warmly enveloped in the illusory protection of night, because I knew that

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[335] Était-ce la meilleure solution de voyager ensemble, si c'était pour rompre ? Dans une certaine mesure, oui, car autant la proximité nous déchirait, autant l'éloignement nous aurait rapprochés. Nous étions en effet si fragiles et désorientés affectivement que l'absence de l'autre était sans doute la seule chose qui pût encore nous rapprocher, tandis que sa présence à nos côtés, au contraire, ne pouvait qu'accélérer le déchirement en cours et sceller notre rupture.

[336] Nous nous aimions, mais nous ne nous supportions plus. Il y avait ceci maintenant, dans notre amour, que, même si nous continuions à faire dans l'ensemble plus de bien que de mal, le peu de mal que nous nous faisions nous était devenu insupportable.

the coming of the day would bring the proof that time had passed, definitive and destructive, and had passed over our love. (58)[337]

In this instance, the narrator is not distraught in Marie's presence. In another instance such as when they are sipping cappuccino on the street (61), the narrator is content to be with Marie. However, this calm state is fleeting as they become cross with each other when the narrator fails to hail a cab in the rain (66-67). The narrator unexpectedly leaves Marie at the museum during her preparations for her exhibit and returns to the hotel feeling ill and feverish, his illness serving as a metaphor for the chaotic state to which Marie drives him. Without telling Marie, he leaves for Kyoto where he "recovers" at a friend's house. In this case, he is more calm instead of agitated away from her.

The narrator returns to Tokyo but is unable to find Marie either at the hotel or at the museum, which is closed. He believes he sees her but it is only his imagination tricking him. He ends up tossing the hydrochloric acid from the vial he carries around his neck for comfort onto a flower in the museum's garden. This random act of violence offers the reader no indication as to the state of the relationship between the narrator and Marie and much less on why the narrator chose this moment to empty the vial of acid here. As a result, there is no "resolution" in the events surrounding this tumultuous relationship and it remains open ended and chaotic. As Stump suggests, "There is perhaps a kind of conclusion here, but we have no way of knowing what it is" (105). Instead of looking for a justifiable solution based on facts from the novel, strange attractor theory would propose that the narrator's trajectory around the strange attractor is unpredictable. The only point of order is that Marie is at the heart of his chaotic path.

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[337] Malgré mon immense fatigue, je me mis à espérer que le jour ne se lève pas à Tokyo ce matin, ne se lève plus jamais et que le temps s'arrête là à l'instant dans ce restaurant de Shinjuku où nous étions si bien, chaudement enveloppés dans l'illusoire protection de la nuit, car je savais que l'avènement du jour apporterait la preuve que le temps passait, irrémédiable et destructeur, et avait passé sur notre amour.

In *Fuir*, Marie is still directing the narrator's path as she is the one who has arranged for him to accompany one of her Chinese colleagues while in Beijing. Appropriately, the narrator seems to be "fleeing" on many levels as the title suggests: physically he is fleeing from Marie in going to China, from Marie's colleague Zhang with LiQi on the overnight train from Beijing to Shanghai, and fleeing the police through the streets of Shanghai. Furthermore, he seems to be trying to flee Marie emotionally through his attraction for LiQi. Indeed Toussaint claims in an interview included in the 2009 reprinting of *Fuir* that "To write, is to flee" (176).[338] As with *Faire l'amour*, however, the narrator still seems to be passively orbiting in her basin of attraction without a means to exit. While in China, the narrator is given a cell phone so that Marie can contact him. She calls him just as the narrator and LiQi have "fled" Marie's colleague and are kissing in the train's bathroom. Simultaneously, Marie is running through the Louvre so as "to flee the news" ("fuir la nouvelle", 44) in having just learned of her father's death (44).

In oppositional tension to this notion of fleeing, the narrator asks at the beginning of the novel: "Would this ever finish with Marie?" (11).[339] Realizing the events in this novel take place prior to those in *Faire l'amour*, the reader knows what the future holds for both of them when they return to Japan in the winter: anguish and ultimately, no resolution to his question about the future with Marie. The narrator's question vocalizes both his conscious and unconscious desire to "flee" Marie and her basin of attraction, but

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[338] "Écrire, c'est fuir." In the interview, Toussaint claims that he is a writer who wants to remain in touch with what is happening in society; thus for *Fuir*, he actually went to China to experience the energy there. However, when he writes, he "flees" the world to write in seclusion. (177). This notion is prevalent in Toussaint's other works where his characters seem to want to flee the world, themselves and time.
[339] Serait-ce jamais fini avec Marie?"

ultimately he is unable to do so. Even if he is physically incapable at that moment of being with her:

> The weak voice of Marie […] transported me, as can a thought, a dream or a reading, disassociating the body from the spirit, the body remains static and the spirit travels, dilates and expands, and that, slowly […] images are born and memories resurge, emotions and nervous states, grief, buried feelings, fears, sensations are revived. (47)[340]

Marie is a strange attractor which can act at a distance on the narrator thus maintaining him in her phase space. He "flees" her in France to go to China, only to return to Ile d'Elbe to attend the funeral of Marie's father. Likewise, when he approaches her at the church in Ile d'Elbe, he remarks: "Marie, strictly immobile, […] filled up the entire space and saturated it with her presence", suggesting she is also physically a strong presence (135).[341]

Marie tells the narrator that she cannot see him as soon as he arrives, thus, much like a strange attractor, his trajectory must approach her but not physically reach her yet. They do finally meet at the narrator's hotel, but as in *Faire l'amour*, they are incapable of making love thus missing another connection. The novel ends with the narrator and Marie swimming in the ocean at dusk. They do finally embrace, but Marie is crying, anticipating their experience in *Faire l'amour* when she cries while they are making love in Japan. Although they may be together, Marie's tears indicate that all is still not well and fulfilled, thus again "missing the mark" of love.

Predominantly, Marie serves as the strange attractor for the narrator, but in some instances, the narrator serves as her strange attractor. When the narrator comes for her

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[340] La faible voix de Marie […] me transportait littéralement, comme peut le faire la pensée, le rêve ou la lecture, quand, dissociant le corps de l'esprit, le corps reste statique et l'esprit voyage, se dilate et s'étend, et que, lentement […] naissent des images et resurgissent des souvenirs, des sentiments et des états nerveux, se ravivent des douleurs, des émotions enfouies, des peurs, des joies, des sensations.
[341] Marie, strictement immobile, […] emplissait tout l'espace et le saturait de sa présence exacerbée.

father's funeral, she at first refuses to see him as pointed out above. However, in her own

time, she seeks him out but cannot find him at first:

> Marie had hoped to find me right away […] then she had stopped looking
> for me, she had remained with this worry in her heart, this worry, diffuse,
> heavy, pregnant, which increased as the time passed, up to asking herself,
> in a complete disorder of her senses if she had really seen me in the church
> […] or if she […] had not had a hallucination […] once again Marie
> looked feverishly for me […] my absence was for her like a supplemental
> ripping, an invisible pain, a worry without an outlet, anxiety which spun
> about in a vacuum. She walked and retraced her steps, she rambled. (144-
> 145)[342]

If Marie affects the narrator in a chaotic way, he has the same influence over her at times.

In this instance, he is her point of order around which she chaotically turns. She tries to

find him but her trajectory, mentally and physically, is chaotic and nonlinear.

In *La Vérité*, it is Marie who calls the narrator to come comfort her at their former

apartment in Paris after her current lover has died. He is then with his current lover, who

is named Marie as well. That their names are the same suggests that he is continually in

"Marie's" basin of attraction. The narrator does not comment on this coincidence and as

such, typical Toussaintian style leaves the reader without an explanation to this name

choice.

The narrator in Ernaux's *L'Occupation* stresses the importance of a name with an

identity. In this case, Toussaint seems to suggest that a name communicates less about of

identity with the apparent banalization of the name "Marie." Furthermore, the narrator

continually calls Marie's lover "Jean-Christophe." when in fact his name is "Jean-

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[342] Marie avait espéré me retrouver tout de suite […] puis elle avait renoncé à me chercher, elle était restée
avec cette inquiétude au cœur, cette inquiétude diffuse, lourde, prégnante, qui croisait à mesure que le
temps passait, jusqu'à se demander, dans un dérèglement complet de ses sens si elle m'avait bien vu dans
l'église […] ou si […] elle n'avait pas eu une hallucination […] de nouveau Marie me cherchait avec fièvre
[…] mon absence lui était comme une déchirure supplémentaire, une douleur invisible, d'inquiétude sans
prise, d'anxiété qui tournait à vide. Elle marchait et revenait sur ses pas, elle divaguait.

Baptiste." In the final analysis, the narrator is in fact nameless. While in *L'Occupation* the quest to learn the woman's name drove the narrator to chaotic trajectories, she was still able to see the woman and herself in other women. Toussaintian identity blatantly disregards a name's importance while simultaneously emphasizing the effect of a person on someone else. Thus, contemporary notions of identity are still left in disorder: a name, a traditional, distinguishing mark offering a way to order and differentiate people from each other, can signify chaos as can repeated or incorrect names.

In the third and final chapter, it is Marie who invites the narrator back to Ile d'Elbe, which temporally, takes place after their return from Japan and the death of her lover. During this time, Marie and the narrator have spent

> One week together at Rivercina, multiplying the invisible games of approach in an attempt to find ourselves, crossing each other on the ground floor of the house with towels over our shoulder and seductive glimpses in looks, interlacing our trajectories in the property's gardens, separating ourselves from each other for an instant only to come back together as quickly as possible. (182)[343]

In this description, the narrator and Marie seem to be exchanging roles of a strange attractor, rendering the identification of the strange attractor open-ended, much in the way Toussaint's works leave the plot open-ended. As such, deep order within chaos can easily be attributed to both men and women such that chaos and order become ungendered. The couple ends up finally making love at the end of the story, but as cited above, the narrator describe Marie's skin as smelling of fire, leaving the resolution to their separation unresolved.

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[343] une semaine ensemble à la Rivercina, multipliant les jeux d'approche invisibles pour essayer de nous retrouver, nous croissant au rez-de-chaussée de la maison avec des serviettes de bain sur l'épaule et des lueurs séductrices dans le regard, entrelaçant nos trajectoires dans les jardins de la propriété, de nous éloignant un instant l'un de l'autre que pour nous rejoindre au plus vite.

In addition, like fractals, the narrator and Marie do not completely represent order or chaos, but some of both. Hippolyte would argue they are fuzzy identities. This investigation asserts that while Ernaux seems to insist on the importance of fractal identities located in others, Toussaint's identities are less fuzzy than they are chaotic and fractal since his characters seem to situate their identity in the chaos driven by another.

The Poet and the Poem

As Frankétienne's spirals reject traditional narratives and privilege energetic linguistic fragments, his strange attractor will differ from that of Ernaux and Toussaint in that it is fractally located at the metalinguistic level: the poet and poetry serve as the point of deep order in Frankétienne's chaotic texts. Fittingly, in his first spiral work, *Ultravocal*, he announces the importance of the poet: "Irreplaceable the voice of the poet who speaks to us in the middle of chaos" (237).[344] He is not only giving deep order to the surrounding chaos, but

> Invested with the power to transfuse speech and the meaning beyond the voice
> the poet is not an idle utopist
> nor a civil servant armed from head to toe in useless armor against the shadows of the desert
> The poet watches over life. (248)[345]

As chaotic systems are fertile and dynamic, they ensure life. Accordingly, the narrator in *Brèche ardente* (*Burning Breach*) asserts: "My work as a writer totally inscribed naturally and without artifice in the esthetic dynamic of a profoundly fertile functional anarchy"

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[344] Irremplaçable la voix du poète qui nous parle au milieu du chaos.

[345] Investi du pouvoir de transfuser la parole et le sens au-delà même de la voix/le poète n'est pourtant pas un utopiste désœuvré/ni un fonctionnaire armé de pied en cap d'inutiles blindages contre les ombres du désert/Le poète veille sur la vie.

(162).[346] As such, in a literary analysis, Frankétienne's poet must also watch over life in a

dynamic fashion. Glissant affirms a similar role for the poet as discussed in Chapter One:

it is the poet who must enunciate the chaos of the chaos-world that has for so long been

repressed by the West. Indeed the poet serves as the connection between all the elements

of a fundamentally chaotic universe: "Bridge for a billion stars without an axis where the

head of the poet turns of whom the shoulders support the fallen heavens in the

improbable space of chaotic silence" (239).[347] If Atlas carried the weight of the cosmos

on his shoulders, Frankétienne's poet carries the weight of the chaosmos on his.[348]

Accordingly, Frankétienne offers a contemporary interpretation of a classical myth which

allows the poet to be considered as a force of deep order within a chaotic system. The

poet in *Ultravocal* claims: "My birth, an unchained spiral with lost ends, leads me far. I

am born and reborn each day, converted into gestures, into speech, into aches and pains"

(305).[349] The poet simultaneously supports the chaosmos and is very much a part of it

while demonstrating his integral role in chaos as declared in *Brèche ardente*:"I am chaos.

I am babel. I am spiral" (163).[350]

　　La Diluvienne[351] (*The Deluge*) presents the poet's speech as a "monumental

treasure/ the speech of the poet/ climbs and reclimbs its collapse," (123) much in the

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[346] Mon travail d'écrivain et d'artiste totalement libre s'inscrit naturellement sans artifice dans la dynamique esthétique d'une anarchie fonctionnelle profondément féconde.

[347] Pont pour un milliard d'étoiles sans axe où tourne la tête du poète dont les épaules supportent le ciel chu dans l'espace improbable du silence chaotique.

[348] James Joyce first coined the term chaosmos in his work *Finnegan's Wake*. See Chapter One "Literary Fractalization and Noise" for a presentation of Joyce's chaosmos and its relationship to a dynamic system.

[349] Ma naissance, spirale désenchaînée à bouts perdus, m'entraîne au loin. Je nais et renais chaque jour, transmué en gestes, en paroles, en douleurs.

[350] Je suis chaos. Je suis babel. Je suis spiral.

[351] This title is in the feminine form of the word deluge (diluvien/ne). Frankétienne does dedicate this book to women "from all the social levels who have suffered, in their soul and their body, from irreparable damages, ravages and traumas caused by the ruthless barbary of the blind, arrogant, odious and destructive foolishness" (7).

same way a system will orbit around a strange attractor.[352] This image recalls Sisyphus who must continually remount the hill as he pushes his rock to the top only to watch it fall again. Following on Albert Camus' version of the myth, Frankétienne's poet can be evaluated as a contemporary hero representing the chaotic repetition of speaking out against continued tyranny. The poet's chaotic repetitions however are fractal like echoes in that they do not exactly express the same ideas with the same formulation: divergence and change exists. As such, this notion broadens Camus' interpretation of mechanical repetition and rebellion into a contemporary concept that offers a literary examination of the fractal "hero."

If Ernaux's identity and Toussaint's conclusions are fractal, so is Frankétienne's poet. On the diegetic level, the poet-narrator exists in *Ultravocal* as Vatel. In *Brèche ardente*, the narrator-poet emerges infrequently as an anonymous narrator but also as a Frankétienne's direct and personal voices. The narrator declares: "I am only personal engagement with respect to myself, paradoxically faithful to myself and my dreams that I change, me Foukifoura always worthy of my madness and myself" (163).[353] Frankétienne refers to himself as Foukifoura also in *H'éros-Chimères*, *Anthologie secrète* and in the work entitled *Foukifoura*.

In addition, Frankétienne offers a clear self-portrait in *H'éros-Chimères* that is indeed fractal: he is the son of a white European man and a black Haitian woman, calling himself a true mutant. Traditional post-colonial studies would emphasize Frankétienne as a *métis* or someone with a mixed racial heritage, which he does indeed have. For Glissant *métissage* is "a matter for us of ultimately reconciling the value of civilizations based on

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[352] Trésor monumental/la parole du poète/monte et remonte sa chute.

[353] Je ne suis qu'engagement personnel par rapport à moi-même, paradoxalement fidèle à moi-même et à mes rêves que change, moi Foukifoura toujours digne de ma folie et de moi-même.

writing and the long repressed peoples of traditions of orality" (*Le Discours Antillais* 462) which Frankétienne does also address in his focus on the visual and the verbal as discussed in Chapter Two.[354] However, he can also be viewed as fractal through the definition of his self-portrait: "I traversed infinite galactic spirals to arrive here in the kingdom of *H'Éros-Chimères* […] an authentic mutant" (241).[355] As a mutant, he rejects the notion of métissage which suggests blending and accepts a state composed of various pieces that do not entirely constitute a whole. Thus his own identity is fractal: belonging neither completely to one race or the other. He is represented through the narrator in *Brèche ardente* as well, suggesting a quasi-anonymous identity that is neither complete fiction nor complete truth. As such, his identity cannot be considered in a traditional binary relationship black/white or East/West or even order/chaos but as somewhere between two traditional absolutes.

As a strange attractor is a point within a chaotic system that holds the system in a chaotic orbit, so does the poet serve as the link between all the chaotic points in the fallen world. In this example, Mégaflore (Haiti) is under the enforced chaotic silence of Mac Abre (Duvalier). As such, it is the poet's voice that must be "ultravocal" to break the silence while not necessarily destroying chaos and refusing tyranny since "truth is perpetually incomplete" (221).[356] This ultravocality reinforces the earlier analysis that Frankétienne's spiral writing through vocalization can offer a sense of deep structure within chaos. Consequently, the poetry surging from the poet also serves as strange attractor.

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[354] Il s'agit pour nous de concilier enfin les valeurs de la civilisation de l'écrit et les traditions longtemps infériorisées des peuples de l'oralité.

[355] J'ai traversé d'infini spirales galactiques pour en arriver là, au royaume des H'ÉROS CHIMÈRES […] un authetique MUTANT.

[356] la vérité [est] en perpétuel inachèvement.

Haiti is a place of chaotic silence which must be broken and poetry will serve to break the silence despite the chaos: "In the census of the poem will we speak about fatigue along the route, indeed about temporary discouragement, but never about complete disarray" (*Ultravocal* 251).[357] In this fashion, chaos still retains some order and does not fall into complete disorder. The poem serves as this node of order as noted in *Ultravocal*: "place of encounters and fertile ruptures. Chance of extremes knotted together by an average cord. An adventure. An accidental place. Something new will be born from this chaos" (262).[358] Glissant equally privileges the role of poetry in the demasking of the chaos-monde: "It's the poetics even of this chaos-world which contain the reserves of the future of humanity of today" ("Le Chaos-monde" 124).[359] Much like the strange attractor, the system will always tend to return to this point.

Similarly, the poem will continually offer a new voice to the poet as stated in *Ultravocal*: "Proliferation of echoes. Incompletion of the poem which reveals itself as inexhaustible. Interior extensions by which creation is pursued at the core of each of us" (302).[360] Echoes have already been discussed as a tool of repetition in Frankétienne's works in Chapter Three. In this instance, echoes become fractal as each cry from the poet will change and evolve much as the orbits do around a strange attractor in phase space. Instead of viewing these echoes as simply repeating the same poem across a large distance, these poems are dynamic and evolving. That they are proliferating suggests a generating quality much like the nonlinear system continues to orbit in the strange

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[357] Dans le recensement du poème on parlera de fatigue en cours de route, voire de découragement passager, mais jamais de déroute complète.

[358] lieu de rencontres et de ruptures fécondes. Chance des extrêmes noués par une corde quelconque. Une aventure. Un lieu fortuit. Quelque chose de neuf naîtra de ce chaos.

[359] c'est la poétique même de ce chaos-monde qui contient les réserves d'avenir des humanités d'aujourd'hui.

[360] Prolifération d'échos. Inachèvement du poème qui se révèle inépuisable. Prolongements intérieurs par lesquels se poursuit la création au fond de chacun de nous.

attractor's basin of attraction. Their incomplete nature, viewed as fractal, liberates the poem from one meaning or even a mixture of meanings. *Ultravocal* underscores this important distinction: "incompletion defines the key-rule" (306).[361] Their fractal nature allows such poems to never generate the same meaning twice and to remain evolving, as Frankétienne's spiral esthetic suggests. If Toussaint's fiction remains unfinished and thus open to fractal directions, Frankétienne's poems also contain this quality suggesting that incompleteness is a contemporary phenomenon meriting further investigation.

As Hayles remarks:

In the Western tradition, chaos has played the role of the other-the unrepresented, the unarticulated, the unformed, the unthought. […] otherness is also always a threat, arousing the desire to control it, or even more extremely to subsume it within the known boundaries of the self, thus annihilating the very foreignness that makes it dangerously attractive. (*Chaos Bound* 173)

In the case of Ernaux, Toussaint, and Frankétienne, this analysis suggests that instead of trying to suppress chaos and the Other, their writing seeks to liberate chaos from its traditional chains. Chaos is as the heart of their works. Consequently, instead of trying to order the chaos, they express it: Ernaux through jealousy and desire as she explores her identity, Toussaint through the depiction of open-ended relationships and Frankétienne through his spiral poetics.

While the strange attractor does offer a point of order deep within a chaotic system,

The desire to control chaos is evident in the search for ways to rationalize it. By finding within it structures of order, these scientists have in effect subsumed chaos in the familiar. But if this incorporation were entirely successful, chaos could no longer function in its liberating role as a representation of the other. Perhaps this is why Mandelbrot goes out of his way to argue against the complete rationalization of chaos; he believes

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[361] l'inachèvement en définit la règle-clé.

> that some residue of the untamable and the nonrational should always
> remain. (Hayles *Chaos Bound* 173)

Therefore, even if this investigation does offer examples of deep order within these chaotic texts, it should be underlined that the strange attractors within each text do not offer the only possible interpretation for a way to categorize the chaos in these texts: the texts are still chaotic and need to be conceptualized as such. Chaos is a vital component of the contemporary literature that needs to be explored and preserved as chaos. In fact, the desire to exist and express chaos has existed for centuries in literature. Hawkins notes of British literature in particular:

> Where would *Paradise Lost* be without Satan, or *Othello* without Iago or the *Tempest* without its own deterministically ordained tempest, or a modern "disaster" movie without a disaster? In art as in life, a desire to experience chaos co-exists and competes with a will to order. (4-5)

Likewise in contemporary French and Francophone literature, where would Proust's *oeuvre* be without Odette or Albertine, Raymond Queneau's *Zazie dans le métro* (*Zazie in the metro*) be without *Zazie*, George Perec's *La Disparition* (*The Disappearance*) without the missing letter "e" or the colonizer-colonized storm in Césaire's *Une Tempête* (*A Tempest*)? Pertinent to this exploration, where would *Passion simple* be without A., *Fuir* without Marie, or *Ultravocal* without Mac Abre? Furthermore, the title *Passion simple* (*Simple passion*) juxtaposes a clearly chaotic sentiment, passion, with an ordered idea, simple. Likewise, *La Vérité sur Marie* (*The Truth about Marie*) suggests the reader will finally understand Marie's life. *Ultravocal* depicts an overly vocal state which in fact, Vatel exists for in the form of a quite oppressed auditory state from which he is trying to break free. As such, the authors are seemingly trying to impose some order on their texts, but the titles only serve to underscore the chaos. Aristotle has already defined

chaos in literature as the events which create and structure the narrative. However, contemporary literature no longer seeks to restore order or a return to normal, but endeavors to maintain chaos.

Toussaint claims in an interview with Demoulin: "The title [*La Vérité*] pleases me […]: the term "truth" implies the theme of a secret. The reader can imagine something is hidden from her" ("L'Entretien avec Jean-Philippe Toussaint").[362] This "something" hidden remains in the text without resolution. Strange attractors in chaos theory afford a literary analysis that allows some insight into ordering the chaos presented in contemporary French and Francophone literature. Nevertheless, these points are "strange" in their own right and must not be too sharply defined or restricted.

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[362] Le titre me plait […]: le terme "vérité" implique le thème du secret. Le lecteur peut imaginer que quelque chose lui est caché.

CONCLUSION

This dissertation asserts that ideas and concepts such as temporal irreversibility, noise as information, bifurcations which lead to order or more chaos, and points of order deeply embedded in chaotic structures, proposed by contemporary scientific chaos theory, equally pervade the current cultural topography. Contemporary French and Francophone literature is no exception. Ernaux's, Frankétienne's, and Toussaint's literary *oeuvres* offer examples of literature in transition. First, their works challenge traditional notions of genre in a noisy manner: Frankétienne mixes remnants of poetry, narrative and theatre not only in form but through variations in fonts. As such he realizes Frow's challenge to contemporary generic categories not to attempt to characterize texts through their forms, but rather through the world the text represents. Frankétienne's *mélange* (mixture) of genres is not so much an example of literature becoming an undisciplined free-fall into complete disarray as another evidence that noise is indeed information. Strict boundaries between genres are disappearing as writers seek to harness a myriad of forms to capture contemporary reality in their texts. This investigation suggests that limiting critical textual evaluations to strict generic categories neglects the power and force of contemporary literature.

Ernaux, while she does not mix genres as explicitly as Frankétienne does, forces a re-evaluation of the diary and autobiography from within their generic category. First, she often does not date her entries, disorienting the reader in a genre usually filled with temporal markers. As such, she subverts the notion of linear temporality in favor of an undefined one. This noisy representation more accurately reflects personal encounters and accentuates a contemporary struggle to organize a continual bombardment of

information. When she does offer a temporal marker to her works, the disjointed content of the entries or the repetitive struggles of consuming passion and desire render the temporal indications unimportant in understanding the (physical and mental) evolution the narrator experiences. Ernaux also transforms each of these genres by making their focus more external than internal. Her "extimate" diaries, *Journal* and *La Vie*, project identity outside the self and render it more collective rather than unitary. As such, identity, an already complicated notion, allows uncertainty, but also possibilities as others participate in the individual's identity construction. Instead of viewing her texts as examples of a genre in turmoil, the noise they generate attests to valid social and cultural currents. As such, Ernaux's avant-garde explorations in the diary and autobiographical genre are reflections of the contemporary cultural topography rather than aberrant and defiant illustrations of a well-established genre.

Toussaint's ordered paragraphs and often immobile plots at first glance suggest a traditional, uncontroversial novelistic style. Upon further investigation, however, these characteristics only serve to affirm an occupation with noise and disorder: unexplained character choices and events and compel the reader to "fill in her own blanks" to complete the story thus accepting ambiguity in the novel. Immobility and repetition in his *oeuvre* offer noisy excursions in the explorations of representations and conceptions of temporal evolution. Inexplicable plotlines and consequences do not represent the novel genre in struggle, but represent the genre in its current state: an entity which attempts to illustrate a contemporary preoccupation with measuring and experiencing temporality. In the case of all these authors, scientific chaos theory allows literary analysis the opportunity to view noise as information and gain insights into how contemporary French

and Francophone writers are productively employing this notion in their texts. Instead of viewing "noisy" texts as simply disordered and perhaps as a "final undisciplined attempt" at regenerating literature, these texts offer examples of a valid, purposeful trend in literature.

The concepts of the irreversibility of time and bifurcation points, as defined by scientific chaos theory, offer pertinent methods for analyzing contemporary literature's preoccupation with identity. Ernaux situates personal identity in others surrounding her in the metro and streets of Paris. She equally acknowledges that others' identities are found within her in as much as they offer an image of collective identity. Toussaint posits his self-portrait in foreigners outside his home country. Frankétienne proposes that there are no real references for identity. Therefore, one interpretation of contemporary literature's treatment of identity could be to describe it as inconsistent given this varied interpretation but also to consider it as a refusal of self, conjuring notions of an antithetical 'everyman' or a society struggling to admit identity and disallowing the notion completely. Viewed through temporal irreversibility and the Arrow of Time, however, one understands that the present and future are not bound in the past, thus prior references points must disappear to foster possibilities. Also, viewed from a systemic level, identity can be collective but not in the sense of erasing the individual: simply the individual exists within a complex network of conditions, all of which cannot be accurately defined. As such, literary analysis can consider the individual, but must also concede the possibility to absolutely define a single person's identity. Contemporary identity is found outside the self, in others, in foreigners, and without usual historical references to the past.

Equally, bifurcation points – the points far from a system's equilibrium at which a chaotic system spontaneously self-organizes or continues into more chaos - offer a productive way to view textual instabilities. These unstable textual points serve to indicate in the text when the plot, a character or another element of the text bifurcates in a different direction. Prior to borrowing from chaos theory, these elements may have appeared as oddities or sudden departures from the natural flow of the text. They may also have served to focus the reader's attention on a particular element of narrative, language or style. However, some may also have gone unnoticed. Considering these points of change through the lens of chaos theory allows the opportunity to view their role as leading to organization or to more chaos.

Accordingly, themes and trends can be distinguished which cause such "instabilities" and reveal issues contemporary literature is addressing. Ernaux's textual instabilities occur around quotidian encounters during which people "self-organize" their reactions to unexpected chaos. As such, her texts do more than explore social class divisions, but offer commentary on general human reactions regardless of social status. Frankétienne's textual instabilities address language, identity and generic transitions suggesting these subjects are not fixed, but continually evolving. Toussaint also challenges the detective novel's stability as a genre through textual repetitions that seem to impede a genre in which progress is inherent to its nature. Consequently, he may be questioning more broadly what should be considered as requisite in defining a genre.

As a result of these textual instabilities, texts move toward order or more chaos. Viewed as such, these movements in either direction can offer markers within the text for the reader searching for signposts or divisions. Alternatively, these bifurcation points

suggest that order can evolve from chaos, as exemplified in Ernaux's group reactions, and Frankétienne's and Toussaint's repetitions, affirming Hippolyte's characterization of the contemporary novel in France. Alternatively, chaos can continue indefinitely through other bifurcation points revealing its consistent presence in contemporary literature.

Finally, gender analysis benefits from borrowing the concept of strange attractors. If the Arrow of Time and bifurcation points allow for order out of chaos interpretations, strange attractors guarantee order deeply embedded within chaos in this investigation's tutor texts, in the form of men, women, language and places. Ernaux demonstrates that jealousy, viewed through a strange attractor concept, originates in both men and women. Accordingly, both can represent order within chaos. In addition, fractal identities can be located in others and in self. In his contemporary micro-human comedy, Toussaint demonstrates how order and chaos can be equally present in men and women, both arousing love and jealousy. As much of Frankétienne's *oeuvre* is concerned with language and noise, the poet and poetry equally serve as strange attractors in his texts allowing both men and women to participate. The poet plays the role of a point of order within the chaos of the world and must enunciate noise within a chaotic silence. Likewise, Frankétienne advocates that poetry will also constitute the point of order within chaos as poetry will always remain open and unfinished, offering fractal echoes that repeat but also initiate new sounds.

Considering gender through the optic of strange attractors does not negate the importance of gender studies: if boundaries and the transgression of boundaries between gendered spaces offers fruitful realms of investigation, what strange attractors do add to the critical dialogue is to assist in transforming gender studies from a binary relationship

to one that is more fluid, offering a (re)consideration of order and chaos in gendered entities. Therefore, seemingly unrelated texts can be effectively compared and probed without needing to reject or counter conclusions gender studies may offer on the works.

The tools presented and applied here from chaos theory are equally applicable to other contemporary classic ("print") French and Francophone literature. As previously cited, Schoots has already introduced the notion of order and chaos in contemporary French fiction, particularly the works by Jean Echenoz, Patrick Deville and Marie Redonnet (in addition to Toussaint). Accordingly, any of these authors from France would offer a productive study applying the tools of chaos theory as utilized in this monograph. Beyond the *métropole*, Orlando in her work *Of Suffocated Hearts* has examined the notion of chaos in several Francophone women's *oeuvres* mentioned previously in which important applications of chaos theory could be applied.

In addition to the works studied by Schoots and Orlando, this dissertation would propose two more: Véronique Tadjo and Lind Lê. Véronique Tadjo, a Francophone writer, illustrator and painter from the Ivory Coast, is someone whose work would benefit from such an analysis. Her first work, *À Vol d'oiseau* (*As the Crow Flies*) is similar to Frankétienne's *Corps sans repères* and Toussaint's *Autoportrait* in that it is a series of vignettes of people's lives. The female narrator of *À Vol*, characterizes the work in the prelude: "Indeed I too would have loved to write one of those serene stories with a beginning and an end. As you know only too well, it is never like that, though. Lives mingle, people tame one another and part. Destinies are lost." She clearly not only affirms the state of flux of a traditional narrative but also reinforces the contemporary literary trend that order, chaos and uncertainty exist together. Her African praise poem,

Latérite (*Red Earth*) also blends poetry, prose and illustrations. Like Frankétienne, she rejects a traditional font in favor of writing this work in all capitals. She also situates her text in the bottom left corner of the page. As such, she challenges the reader's visual expectations for a text. This work also contains repetitions, some altered some not, as analyzed here in Frankétienne and Toussaint. Irène Assiba d'Almeida astutely claims that "Tadjo often blurs the genres, and even within a genre she shows great originality and in form and structure. […] [She] chooses to disregard chronology which she views as artificial, distorted linearity and as a rearrangement of reality" (154). Analyzing Tadjo's oeuvre through the lens of chaos theory would expand this important analysis to the African continent and reinforce the universality of such tools.

Texts by Linda Lê from Vietnam would also offer a fruitful investigation opportunity to employ notions from chaos theory. Like the tutor texts studied in this monograph, Lê also mixes the genres of autobiography and fiction. Autofiction is a literary genre that is often defined as a combination of autobiography (truth) and fiction (invention). Lê's texts have often been associated with this term. In an unpublished interview with Ook Chung on November 9, 1993, however, Lê states regarding *Calomnies* (*Slander)* that it is "rather an autobiography which is unhinged, unsettled […] it is an autobiography with the idea that after all, truth is part of the lie" (Chung qtd in Winston and Ollier 242). Unlike Ernaux, Frankétienne, and Toussaint, Lê's text often contain large blocks of text with no white spaces or paragraph distinction suggesting a rejection of the notion of "white noise" in favor of a "stream" of noise. Furthermore, Motte characterizes her writing style as one that "puts literary language on trial. […] *Calomnies* […] is a slanderous text. In dialogical counterpoint, Lê will ask us to reflect

upon the uses and abuses of novelistic language, upon the way the novel may investigate the world" (*Fables of the Novel* 7). Indeed, Motte claims that all her texts are "experimentalist" in that they "question literature closely" (53). Concepts from chaos theory could illuminate her purpose of this writing style and her investigation of the world as such. Finally, Lê represents a body of burgeoning, contemporary Francophone writing in France with roots in Vietnam meriting exploration.

Sidonie Smith claims in her article exploring the future of the traditional dissertation monograph:

> Digital media and computational technologies are radically transforming how knowledge is produced, communicated, and evaluated. The digitalization of scholarly work in the humanities brings new modes of research; new formats of presentation; new networks for communication; and new platforms for organizing knowledge, orchestrating argument, and visualizing intellectual exchange. (2)

Pertinent to this study is the growing existence and attention that electronic literature as a new genre is gaining in traditional literary studies. This investigation has explored classical literary texts using concepts borrowed from scientific chaos theory in an effort to illuminate trends in identity, genre and gender in contemporary French and Francophone literature. However, as Smith argues that "by introducing new forms of the dissertation, we would encourage doctoral students to experiment with different scholarly voices and styles of address and to route their work through different learning communities" (3), this examination claims that electronic literature offers novel forms of literature and different styles of address that present new opportunities not only for analysis but also for students developing in a culture that encourages digital scholarship.

Subsequently this dissertation will offer a short reflection on electronic literature, specifically exploring how borrowed notions from scientific chaos theory are essential to

advance the dialogue on defining "literariness" in electronic texts as well as reconsidering the definition and role of author and reader in contemporary society where literature is no longer only located in printed texts. This inquiry has already considered the role of the traditional reader in contemporary literature and found her role to be highly involved. Electronic literature amplifies this participation as she must not only interact with the text, but she must interact with the text *through* the computer.

If we agree with Sartre on "What is literature?" the emphasis will be placed on the question of engagement and the way in which the text itself can change politics and society. Electronic literature represents equally an engagement in phase with the social, political and cultural currents of the twentieth and twenty-first century. One cannot deny the important role of digital media (from video games to Youtube, passing by digital film and art) in contemporary society. As more forms of media take the (often permanent) leap to the virtual world, electronic literature can be considered as a response to the literary needs of a society which privileges more and more these media in daily life. As mentioned in Chapter Four, Internet searches, (whether on Google, Youtube or within a particular Internet website such as the one for the newspaper *Le Monde* for example), imitate chaotic bifurcations: often the search result of an "initial input" becomes the "initial input" for the next search. Accordingly, the searcher's path becomes contingent on at least word choice and the order in which the words are strung together for the search. The search results then become unpredictable from one search to the next. If chance plays a role in Internet searches, uncertainty pervades the results of these searches. Consequently, this dissertation asserts that one capital characteristic of these media is uncertainty.

A traditional literary text, on the contrary, is different in that it never changes: it will be the same text each time everywhere in the world due to mechanized printing (excepting translations, abridged or updated versions and certainly excepting the reception of the text by readers) and each reader can verify what critics assert about the text. On the other hand, to read an electronic text is a different experience for each reader and raises an essential question: if the text changes for each reader, examining a text with certainty is questionable.[363]

Furthermore, is electronic literature really literature? As Hayles speculates, "Is literary quality possible in digital media or is electronic literature demonstrably inferior to the print canon?" (*Electronic* 2). She underscores the idea of inferior genres, which according to Robert Stam

> derives from the a priori valorization of historical anteriority and seniority: the assumption, that is, that older arts are necessarily better arts. Through what Marshal MacLuhan calls "rear view mirror" logic, the arts accrue prestige over time. The venerable art of literature, within this logic, is seen as inherently superior to the younger art of cinema which itself superior to the even younger art of television, and so forth ad infinitum. (4)

This reasoning can straightforwardly be applied to electronic literature and determine thus its function and value in regards to traditional literature: it will be necessary to challenge the a priori notion that electronic literature is inferior to traditional literature for the unique reason that it is more recent. Thus defining what is "literary" about electronic literature must differ from the qualifications used for traditional literature. As Hayles asserts, "To see electronic literature only through the lens of print is, in a significant sense, not to see it at all" (4). This dissertation claims that chaos theory offers an

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[363] For this analysis, an electronic text is one that is interactive and not a stable text that is simply located online.

alternative to exploring what is "literary" in this new literature since uncertainty is fundamental in the conception of an electronic literary text and its analysis.

Generative texts constitute one of the numerous genres of electronic literature. The two texts presented hereunder belong to this sub-genre which favors uncertainty in the creation of the text, calling into question the notions of author and reader in their relationship to the text. Jean-Pierre Balpe defines generative literature as

> a literature where the texts are produced through a computer by means of a set of formal rules, the use of any kind of algorithm, specific dictionaries and eventually knowledge representations. That means a literature of which the author does not write the final texts but which only works at the level of the high rank components such as: conceptual models, knowledge rules, dictionary entries and rhetoric definitions. (309)

Immediately we notice that the author of this genre of texts creates the rules and the instrumental situations in the development of the narrative but not the plot itself. The computer, using algorithms and rules "creates" the story. This distance thus calls into question classic notions of author and text.

For Balpe "the difference is [that] the author is something like a meta-author trying to define what literature is for him and how his literary conception can be formally described. The tools of engrammation he uses are totally different [than classical literature]" (309). In distinguishing what is "literary" in a generative text, it is necessary to describe the rules and the algorithms that the author used to create her text inside of the textual representations which result from these rules and algorithms. Since each reading changes with each reader, it is essential to consider the meta-creation of a text.

This analysis will examine two texts: *La Série des U*, (*The Set of U*) by Philippe Bootz and *Fiction* by Jean-Pierre Balpe.[364] The former text is a poem which belongs to the work *passage* by Bootz. The work includes background music and a screen which changes color (blue, white, red and black while the letters are yellow; in other extracts the letters are in black and white). In this generative poem, the letters and the words are emphasized. In the case of a traditional poem, the reader has the complete poem before her. In *La Série*, the reader can only see a maximum of three or four words at a time before they disappear. Memory plays a critical role: after several digressions, the first words of the poem can be forgotten and the reader's memory of the words supersedes examining the relationship of the words. According to Bootz "The reader cannot re-read what was already read, can never see the total text and thus relies in large part on the signification he constructs through the memory of anterior fragments" (108).[365] Uncertainty represents an integral part of the experience of a generative poem and its literariness consists in representing fragmentation as an essential characteristic not only of our memory but of the experience of what is literary. This dissertation suggests the fact of representing fragmentation and not only our memory, but also the experience of having been bombarded by letters and words, sounds and colors is thus how electronic literature truly engages itself with contemporary social and cultural currents. The contemporary world becomes more and more fragmented, uncertain and chaotic as the Internet demonstrates: people search or "google" with words and fragments. Generative

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[364] See the following link for Bootz's work *La Série des U* at the *Electronic Literature Organization*'s website:: http://collection.eliterature.org/1/works/bootz_fremiot__the_set_of_u.html. For Balpe's work *Fiction*, please consult: http://fiction.maisonpop.fr/

[365] Le lecteur ne peut relire ce qui a déjà été lu, n'a jamais l'ensemble du texte sous les yeux et fait reposer une bonne partie de la signification qu'il construit sur le souvenir de fragments antérieurs.

poetry confronts this question in an audio-visual format with a truly contemporary mode of expression: digital media.

It should be underlined here that the computer "reads" the text at the primary level and not the human. Without deciphering computer codes, human readers would be incapable of "reading" the text. What humans read is the writing that the computer has decoded and transcribed, on the basis of the program entered by the author. A short preface to *La Série*, located at the Internet site for the *Electronic Literature Organization*, stipulates that

> Meta-rules are not "technical rules," but the expression of a complex esthetical intention that lies in programming and can only be perceived by looking at the program. This intentionality is not addressed to the reader but to a "meta-reader": reading is a limited activity. (Bootz and Frémiot)

The critic must then consider another level in defining the literary: the programming language which is, at its foundation, a series of words. Consequently another branch of "linguistics" contributes to the critical discussion of literariness in electronic literature: problems of codes, computer language and automatic translation.

Hayles states in her 2008 work *Electronic Literature: New Horizons for the Literary*, that electronic literature is distinct from print literature in that it

> literally cannot be accessed until it is performed by properly executed code. The immediacy of code to the text's performance is fundamental to understanding electronic literature especially to appreciating its specificity as a literary and technical production. Major genres in the canon of electronic literature emerge not only from the different ways in which the user experiences them, but also from the structure and specificity of the underlying code […] some genres have come to be known by the software used to create and perform them. (5)

Unlike a print text where a book cover is opened and reading can begin, an electronic text cannot even be initiated without the proper programming code. Genre is one "code" that

literary analysis uses to critique traditional print texts according to the form and content of the work.[366] The medium of transmission, paper in this instance, does not affect a distinction between literary genres. Hayles astutely points up however that code is an essential notion to consider when critiquing an electronic text as electronic literary genres are closely linked to their executable code. An exciting and challenging aspect of electronic literature is that the host medium (software) now plays an extremely important role in determining the genre. Electronic literature also introduces a new concept and thus new challenges, of the traditional definition of languages. Hayles characterizes it as a creole:

> 'Code work' […] names a linguistic practice in which English (or some other natural language) is hybridized with programming expressions to create a creole evocative for human readers, especially those familiar with the denotations of programming language. 'Code work' in its purest form is machine readable and executable, such as Perl [programming language] poems that literally have two addressees, humans and intelligent machines. (20)

Since computers are the host of transmission for electronic literature, unlike print literature that is contained on paper, two 'readers' exist, the human and the machine. The human reader tries to decipher a meaning from the text for general understanding and perhaps also for literary criticism and analysis. The machine, on the other hand, is trying to also translate the programming code which generates the poem. As with human languages, "broken creoles" even represent a part of this new language as Hayles describes:

> More typical are creoles using 'broken code,' code that cannot actually be executed but that uses programming punctuation and expression to evoke connotations appropriate to linguistic signifiers. Replete with puns, neologisms [such as 'remotional' and 'I-terminal' found in Memmott's

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[366] See Frow's notions of genre as discussed in Chapter Two.

Lexia to Perplexia], and other creative play, such work enacts a trading zone in which human-only language and machine-readable code are performed as interpenetrating linguistic realms, thus making visible on the screenic surface a condition intrinsic to all electronic textuality, namely the intermediating dynamics between human-only languages and machine readable codes. (20)

As with human language, electronic literature has developed its own gulf between a fluent creole and a broken one. However, the 'brokenness' occurs between a human and a machine when the code is not executable.   This dual readership consequently creates more issues for communication which could at times appear as noise to the traditional reader. Hayles characterizes the encounter of a traditional reader of print texts with an electronic text, focusing first

> on the screenic text employing strategies that have evolved over centuries through complex interactions between writers, readers, publishers, editors, booksellers, and other stakeholders in the print media. For readers who do not themselves program in computational media, the temptation of reading the screen as a page is especially seductive. Although they are of course aware that the screen is not the same as print, the full implications of this difference for critical interpretations are far from obvious. (23-24)

New challenges on the horizon for literary studies surely involve working through the issues of code and translation when a "traditional print reader" reads and/or attempts literary analysis on an electronic literary text, including considerations of creoles and broken creoles.

> The title *Fiction* by Jean-Pierre Balpe is, according to him

> [a] title […] which has a double meaning: It both connotes that all fiction is a fiction by itself and that a fiction can be built by an infinite number of fictions, something like a "mise en abyme" of the fiction itself. Indeed none of these texts will ever be presented to the reader for a second time and no reader will ever have the same set of texts. Each text seems to be independent from the others. (310)

This same effect exists in chaos theory: Prigogine and Stengers' Arrow of Time suggests that time is irreversible: the narrative thus cannot be the same twice. In his text, Balpe mixes written paragraphs with background images and music. Each time the reader "clicks" on the spinning sphere used to open the text, a different text, image and sound appears. Henceforth, there is no connection between the short scenes of life and it will be the "classic" reader who will search for a "narrative" between these fragments. For Balpe, this is

> certainly is one of the reasons why generative texts disturb our reading habits — the reader loses all the usual markers relating to the *diegetic axis* and has to find or invent other kinds of references. The narrative is not totally built in advance but put together from a lot of virtualities which are — or are not — actualizing themselves in the course of reading [...]Each new reading — actualizing the narrative in a new way, built on what I call *microfictions.* (312)

Chaos is thus present at the narrative level. The idea even of spontaneity plays a role in chaos theory. Non-linear systems bifurcate spontaneously from one state to another.[367]

On the other hand, with Balpe's text, the reader has many fewer reference points and the narrative is different with every reading. Electronic literature appears, therefore, more apt at realizing chaos and uncertainty in life. As such, contemporary scholars and critics must consider what is literary in these generative texts plagued with chaos and uncertainty. A text, liberated from the classical book format poses new challenges: Balpe affirms that the "[g]enerative text rejects clotting, time's dictatorial caricature; it presents a whim of eternity. But this eternity-whim truly differs from that of "classical" literature because it does not depend on the duration of its memory but on the infinitude of its

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[367] This is the case with *Fiction* but also in cinema in a film such as *Paris, je t'aime* for example: this film proposes a series of quick glimpses into the lives of different people who seem to be unrelated to each other until the end reveals their interconnectedness. However, once produced, the filmic text remains the same regardless the number of times played. Cinema emulates this spontaneity only once – upon the first viewing - whereas generative texts will recreate it with each reading

reproductions" (316). What is literary then is the way in which the text represents the world in the infinity of its productions which are all different. This incertitude and this absence of permanence suggest another definition of the "literary": what is important is not what lasts, but what changes, that is, exactly the dialectic between being and becoming.

To conclude, electronic literature, and particularly generative texts, calls into question the form and content of traditional literary critique. Chaos and uncertainty "plague" contemporary "classical" print literature. They are also inherent in electronic texts but they do not signal the end of literature any more than its contemporary traditional counterpart. On the contrary, these digital texts represent an opening, allowing a realization of ideas found in the contemporary cultural topography. As this analysis has often mentioned in the previous pages, Hayles suggests an 'ecology of ideas' within which resides an ensemble of ideas which may or may not be possible within a same cultural topography. Electronic literature embodies the contemporary ideas of chaos and uncertainty. For Balpe, the relationship between generative texts and classical literature is summarized in the fact that

> [g]enerative literature tries to be on the side of the effusive superficiality of show. It wants to reconcile the literary activity with that of play and game: to separate literature from the sphere of reverential and deadly seriousness in which the whole classical tradition locks it. Not merely about a particular text, it questions itself infinitely about the aesthetic working of the human spirit. (318)

Similarly, Prigogine and Stengers affirm that science can no longer explain the world exclusively through a series of definite laws like Newton's that do not allow for probabilities, but rather through laws *and* games, being *and* becoming, certitudes *and* chance. Accordingly, concepts borrowed from chaos theory, already employed in

psychology, economics and medicine, will necessarily enhance understanding of literary texts created in a world inherently chaotic and uncertain.

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