

Order in Disorder: Exploring Chaos Theory in the Narrative Structure of Chuck Palahniuk's *Fight Club*

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ABSTRACT

*Chaologists believe that our actions, albeit small, play prominent roles in shaping the reality which we live in. It is believed that within the chaotic nature of our world, there is a complex system in its randomness. Yet, these seemingly random events have organised patterns such as weather and natural events which may be constantly predicted but they never be completely predetermined. This is the basis of chaos theory which identifies and examines these unseen, disorderly pattern in our world. Similarly, Chuck Palahniuk's *Fight Club* (1996) tells the story of an unnamed narrator who is trapped in the seemingly disordered string of events. However, there is a point of equilibrium in the unnamed narrator's life before it branches out into the disequilibrium caused by individuals who influence his string of decision when one reads into the text. By utilising main elements of chaos theory and Tzvetan Todorov's narrative theory, this study explores the relationship between the strange attractors and the unnamed narrator's string of decisions. Although the text is narrated in his jumbled train of thoughts, *Fight Club's* narrative structure can be reconstructed to provide a clearer look on his gradual descent into chaos. As a result, this study shows that there is a parallelism between narratology and quantum physic theory and the possibility to incorporate them in analysing the narrative structure of literature.*

Keywords: chaos theory; butterfly effect; strange attractors; Todorov's narrative structure; literature

INTRODUCTION

The most common assumption of literature, primarily fictional works, is they are not factual. Fictions often regarded as imagination of the authors and although the authors utilize similar setting from reality world into their fictional world, the events described are not confirmed to be accurate. However, Hayden White regards narrative to be a reflection on the nature, culture and humanity (1980, p. 5). Jerome Bruner also sees narrative as a “version of reality” which “acceptability is governed by convention and ‘narrative necessity’ rather than by empirical verification and logical requiredness” (1991, p. 4). Collectively, literature should be seen as a complex being because it requires “a process of rumination and imagination” (Dwyarie & Tjahjani, 2019, p. 141).

Narrative, by basic definition, is an act of telling stories. There are various medium of telling a story; verbally, written, or even in signs. To give a more realistic and often ‘variety’, exaggeration in narrative is unavoidable which may result in implausible settings or structure. As matter of fact, narrative has actually existed long before the use of the term; it was mostly known as storytelling. And storytelling is considered as “mankind’s oldest methods of possessing information and representing reality” (Lewis et al., 2008, p. 200). Therefore, there is a connection between fictional world and our reality world.

Among many features of literature, it was believed that characters are the ones who shape the storyline and its structure while writers merely projected these characters’ stories instead. N. Katherine Hayles agrees that there is author’s representation of life through their

work (1990, p. 4), linking to structuralists' belief where literature is essentially "projections of the structures of human consciousness" (Tyson, 2006, p. 220). In view of this statement, literature may also represent the order and disorder manner of our reality.

Fight Club, in essence, is a narrative of chaos. It is chaotic and transcends linear and temporal elements of our reality as the unnamed narrator (abbreviated as the narrator) pours out his consciousness using the text's narrative structure. Lars Bernaerts (2009) defines such narrative as "manifestation of madness in fiction: the narrative delirium" (p. 373) in which it is deemed as "a way of coping with the chaos of reality" (p. 379). In other words, *Fight Club*'s narrative structure is constructed following the narrator's clash with the chaos.

While this observation is not entirely new, chaos theory provides an attempt to examine how the pattern works. If nature is known to be chaotic and has been represented in literary works for many centuries, then it is suggested that the narrator's actions and decisions in *Fight Club* are not entirely innate but bounded with external influences. At the same time, his actions affect not only his life, but the world too. Tom Stoppard asserts that there is certain degree of significance to "human choice and action in the universe" where human also plays a major role in affecting the world; not bounded to its peculiarities (as cited in Pritzker, 2014, p. 8). Therefore, this paper examines the narrator's string of decisions to map the starting and ending point of chaos using the three elements of chaos theory: strange attractors, the butterfly effect and bifurcations.

CONCEPTUAL THEORIES

CHAOS THEORY

From *English Oxford Living Dictionary*, chaos theory is defined as: "The branch of mathematics that deals with complex systems whose behaviour is highly sensitive to slight changes in conditions, so that small alterations can give rise to strikingly great consequences" ("Chaos Theory", def. 1). This definition is essentially a more generic comprehension of the butterfly effect, possibly the vital aspect in chaos theory. The term was first coined by Edward Norton Lorenz in 1972 where he visualises that a single flap of a butterfly's wings may be responsible in producing a tornado (1972, p. 91).

While this analogy is seen as far-fetched, it actually incites further enquiry: just how far a seemingly insignificant, small flutter of a butterfly can create a turbulence at the other side of the world? From this perspective, it is thought that even the slightest changes in dynamic system can determine the path of an individual to the point it can eventually change the world. The whole world, according to James Gleick (1988) is considered as a vast behaviour of complexity (p. 5). Hence, he proposes that a series of events may have a centre point of crisis which can create slight details into a bigger, chaotic outcome. However, chaos implies that these points are dynamic and everywhere (p. 23) and are recognized as delicate forces.

To have a better understanding of chaos theory, the Double Pendulum Experiment is often used as an example. In the experiment, a single pendulum is pushed forward and usually, it swings within its semicircle but never in predictable pattern. This movement displays determinism but never predictability. Even so, when another pendulum is added below the first pendulum, the unpredictable pattern of the first pendulum will now swing in a stable semicircle. Instead, the second pendulum will go disarray. This experiment symbolizes the dynamic system by demonstrating its sensitive dependence on initial conditions.

This notion of "sensitivity on initial conditions" is prevalent in chaos theory. From his own pendulum experiment, David Tritton (1993) pinpoints that even though the experiment is followed with "identical conditions", the pendulum "will always produce different patterns of

motion” (p. 24). He then remarks on the flaws in human predictability: “If we knew exactly how the pendulum is moving at a given time, then we could predict its future motion exactly. But we never do know anything exactly – the slightest vibration in the drive or the slightest draught in the room prevents that” (p. 28). In other words, if even a slight gush of wind can become a cause of volatility in a controlled experiment; imagine a slight change in uncontrolled, vast universe.

Hence, strange attractors, or also known as chaotic attractors, are the tiny particles and elements influencing our universe. A. B. Cambel (1993) describes strange attractors as “the trajectories of chaotic attractors diverge” and they are “sensitive to initial conditions” (p. 70). They are deemed as complex and unsteady yet manage to stay within its predetermined space while influencing the events all around them. Similar to a vortex, strange attractor may be considered as the eye of a hurricane. Nevertheless, Cambel believes that “strange attractors are not necessarily chaotic,” (1993, p. 70) suggesting that chaos is not only unpredictable but possesses deterministic trait as well. He also states that when a system encounters the strange attractors, the trajectories will never repeat itself in a continuous loop.

Instead, Cambel proposes the trajectories that branched out from the system will not close on itself (1993, p. 73) and a new system will be created following the diverging bifurcations. Generally, one can look at bifurcation as two roads or choices. Each decision will create more bifurcations as long as there are choices. Cambel states that “during complex events the divergence is not limited to two roads, but there can be many” (1993, p. 109); mimicking the branches that may appear in the butterfly effect. Hassan and Mehdi have impeccably summed up the relationship between the butterfly effect and bifurcations:

“In the notion of “the butterfly effect” is that systems change from near-to-stable dynamics to far-from-stable dynamics when they undergo bifurcations. The increasing number of bifurcations will cause the system to break apart and lose much of the order or pattern they have... Nonlinear systems are, therefore, extremely sensitive to initial conditions, that means, “similar phenomena or systems will never be wholly identical and that the results of those small initial changes may be radically different” (Slethaug xxiii).” (2012, p. 86)

From their understanding, bifurcation represents trajectory branches that come out from the initial, stable dynamic system. And the further we move away from the equilibrium; more bifurcations will later emerge. This notion can be referred to the Double Pendulum Experiment: a small change at the starting point of the pendulum will drastically create a whole new and different behaviour. Although it seems random, strange attractors usually materialized for a reason. As stated by Hayles: “An attractor is simply any point within an orbit that seems to attract the system to it.” (1990, p. 147).

Furthermore, Khalid Ahmad Yas et al. (2017) posits that strange attractors act similar to magnet because “they have the ability to attract, restrict and guide a system through courses it chooses within set boundaries” (p. 111). He also proposes that physically, strange attractors are in “the form of physical properties”, while in human life, strange attractors may be in “the form of desires, emotions, and dreams” (p. 111). In view of this statement, in literary work, strange attractors are inconstant and can be represented and interpreted as various subjects including in the form of objects or other characters.

As strange attractors have strong sensitivity and dependency on initial conditions, it is suggested that when a dynamic system is attracted to their orbits, it creates trajectories and bifurcations imitating chaos without coming back to its former equilibrium. In a way, strange attractors may cause disruption of the previous dynamic system, but they will create outcomes from it. The outcomes may vary to the individual because when something new is created, either changes in personalities or certain events in world, the old ones have to be destroyed.

TZVETAN TODOROV'S NARRATIVE THEORY

What happens after chaos? We were taught that chaos is something to be avoided or prevented but when chaos happens, it usually conceives something else. Take RMS *Titanic* for example. The colossal ship was dubbed as “unsinkable” before its maiden voyage, but history has known it as one of the deadliest marine disasters. While its creation was considered flawless upon inspection, how would anybody expect an iceberg amidst the vast seas would be their demise? However, after the tragedy, the world realized the significance of these unexpected behaviours of our nature.

Accordingly, International Ice Patrol (IIP) was set up directly after the sinking of *Titanic*, where their responsibilities are to “monitor the stretch of the Atlantic Ocean around Newfoundland” while sending out “daily “iceberg watch” bulletin” (Kelly, 2012). This suggests that more changes and improvements were devised following the tragedy because people have learnt that unpredictability is prevalent in nature despite humans’ seemingly immaculate manoeuvre. And so, aside from losing the previous state of balance, chaos actually brings forth a renewed stability.

As Allan McRobie and Michael Thompson observe: “With gradual changes in parameter, attractors generally evolve smoothly, but at certain critical points, called bifurcations, the attractor may split into different attractors or may simply disappear” (1993, p. 155). Khalid Ahmad Yas et al. (2018) also deduces: “Chaos can beget order without any intervention from outside. It is entirely an internal process” (p. 162) which proposes that chaos may cease and stop instantaneously without any warning. At the end, rather than moving in a continuous loop, the system might establish a new equilibrium. With this understanding, it is possible that in literature, these bifurcations or “critical points” can be identified and mapped.

Subsequently, this notion is similar to Tzvetan Todorov’s narrative theory or also known as theory of equilibrium. According to him, there are “two moments of equilibrium” and they are “separated by a period of imbalance, which is composed of a process of degeneration and a process of improvement” (1969, p. 75). There are two points here. First, the “period of imbalance” or disequilibrium creates trajectories and second, these trajectories are separated by their process where it leads to degeneration (disequilibrium) and restoration (new equilibrium). Todorov further describes the cycle of his theory: “...we begin with a state of equilibrium which is broken by a violation of the law. Punishment would have restored the initial balance; the fact that punishment is avoided establishes a new equilibrium” (1969, p. 75).

In addition, Todorov also pinpoints one can omit certain aspects in narrative if it does not cause notable alteration to the story (1971, p. 38-39). However, he proposes that there are “five actions” that cannot be omitted or else it will cause “the tale to lose its identity”. These indispensable actions constituted Todorov’s narrative theory (also known as the five stages of narrative structure): “1) situation of the equilibrium at the beginning; 2) the breakdown of the situation [by disrupting the equilibrium]; 3) the [character’s] recognition of the loss of equilibrium; 4) the successful [force to bring back the equilibrium]; and 5) the re-establishment of the initial equilibrium” (Todorov, 1971).

JUSTIFICATION OF THE THEORY AND TEXT

According to Monika Fludernik (2009), there are three meanings of narrative as Gérard Genette points out: “...*narration* (narrative act of the narrator), *discours* or *récit proper* (narrative as text or utterance) and *histoire* (the story the narrator tells in his/her narrative)” (p. 2). Consequently, every literary text should possess a certain level of narrative. For example, a

combination of the first two levels of narrative will be categorized as “narrative discourse” while the story itself will be categorized as what “narrative discourse reports, represents or signifies” (Fludernik, 2009, p. 2). To simplify, a narrative indicates a story that the narrator tells.

Based on this understanding, there are four distinct aspects of narrative: 1) story which is the sequence of events; 2) narrative discourse which is the act of telling the events; 3) narrative which is the representation of story through narrative discourse; and 4) narrative structure which is the elements in story such as plot and setting. For this paper, the focus is on the narrative structure of *Fight Club* only. The literary elements chosen are only the major characters and plot structure. Only the layers of the action sequences in the story is studied instead of focusing solely on the narrator’s narrative discourses.

To assist with the analysis, this paper utilises two main theories: chaos theory and Todorov’s narrative theory. From chaos theory, three of its elements are selected, the butterfly effect, strange attractors, and bifurcations. Whereas for Todorov’s narrative theory, his theory of equilibrium (five stages of narrative structure) is chosen. The main objective for this paper is to determine that these two theories can be used to map out the point of crisis in the narrator’s chaotic narrative structure. Ideally, by reconstructing the text’s narrative structure following Todorov’s five stages of narrative structure, we may be able to comprehend the pattern of chaos in the narrator’s life; starting from his initial equilibrium and after undergoes disequilibrium to a new equilibrium. Hence, there are two separate reasons for the chosen theories and text.

First, the butterfly effect in chaos theory is essentially an attempt to justify that in some ways, our lives are intertwined with each other where our string of decisions resembles a continuous flow of ripples. Contrary to other literary theories namely existentialism theory, even small changes in our lives correspond with others thus affecting not only our world but theirs as well. This statement relates with the essence of *Fight Club*. Formerly, the text did not garner much attention until the film adaptation came out in 1999. Following that success, the text and film become cult classic due to Chuck Palahniuk’s writing style which is mostly known as ‘dangerous writing’.

Generally, dangerous writing promotes minimalist prose, which is inspired from personal, usually painful experience. Tony Scott emphasizes the prominence of dangerous writing in creative work because it is “personally and politically transformative” (2009, p. 32) as the style of writing is mainly focused on social and political issues. As a result, most of the previous studies on *Fight Club* have focused on American capitalism, consumerism, and toxic masculinity in the 1990s (Cohen, 1991; Davis, 2006; Wilson, 2008; Jacobsen, 2013; Pellerin, 2015). However, this paper ventures a different side of the novel by focusing on the chaos in the text’s narrative structure instead.

Second, this paper intends to implicate the use of chaos theory in literary texts, particularly in their narrative structure. While there are multiple studies of chaos in literature (Hayles, 1990; Flores, 2002; Khamees Ragab Aman, 2007; Hassan & Mehdi, 2012; Rezaei & Samani, 2012; Yas et al., 2017, 2018), there has not been one on *Fight Club*. Rather than seeing *Fight Club* as a work of satire, this paper regards it as a journey of an everyman who is entangled with chaos. As the narrator tries to fix his mistakes and slowly discover the truth about himself, this text provides an adequate representation of chaos.

At the same time, Todorov’s narrative theory has been used to analyse literary works but his theory of equilibrium (five stages of narrative structure) is rarely utilised. Other studies mainly focus on other aspect of his narrative theory namely his narrative modes of propositions (Nabilu, 2014) and his narrative transformations (Lee, 2006). However, both of these models of analysis are related to Todorov’s theory of equilibrium which in essence, put emphasis on the construction of narrative sequences in literature (Taum, 2018). In the same way, Todorov’s five stages of narrative structure entail the principles of order advocated by chaologists.

Therefore, this paper utilises three elements of chaos theory and Todorov's five stages of narrative structure as its theoretical framework. Strange attractors are used to identify the critical points in the narrator's life while the butterfly effect indicates the trajectories and bifurcations that branched out from his string of decisions. Next, Todorov's five stages of narrative structure are used to reconstruct the text's narrative structure following the findings from first part of the discussion. This is to determine the similarities between chaos theory and Todorov's narrative theory.

DISCUSSION

STRANGE ATTRACTORS IN THE NARRATOR'S LIFE

To fully understand the characters' roles with each other, it is necessary to discuss the characteristics of the unnamed narrator. Despite being known as the main protagonist, the narrator has a vague background. Throughout the course of the novel, the narrator never acknowledges his own name although most of the key characters in the novel were given names and distinctive characteristics. In certain situation, the narrator only addresses himself as Joe's organs, a habit originates from his reading on Reader's Digest magazines: "In the oldest magazines, there's a series of articles where organs in the human body talk about themselves in the first person," (Palahniuk, p. 58).

However, these labels are only used when the narrator feels strong emotions particularly towards Tyler Durden. For instance, when he is upset with Tyler, the narrator refers himself as "Joe's Inflamed Flaring Nostrils" (Palahniuk, p. 59). In an occasion after Tyler disappears, the narrator calls himself as "Joe's Broken Heart" (Palahniuk, p. 134). Moreover, the narrator's thoughts are written as narrative, not in dialogues markers as the others. This is intentional as Palahniuk's method in hiding the narrator's dissociative personality disorder. Only towards the end of the novel that the readers would realize that the narrator and Tyler are indeed a same individual with Tyler as a hallucination seen by the narrator in regular basis.

However, it may be confusing to indicate which one of them is the original personality. The narrator states: "I've been here since the beginning," (Palahniuk, p. 15). Yet, he has acknowledged Tyler's existence before the revelation: "Tyler had been around a long time before we met," (Palahniuk, p. 32) and also addresses Tyler's involvement in his life: "Sometimes, Tyler speaks for me," (Palahniuk, p. 52). Based on this observation, Tyler could be seen as the manifestation of the narrator's deepest desire. As *Fight Club* is written revolving around the narrator, the system or orbit that the strange attractors are attracted to is naturally the narrator's life. Thus, the strange attractors who disrupted the narrator's equilibrium are presented in the form of characters: Tyler Durden and Marla Singer.

Hayles states that strange attractor is an "odd combination of simplicity and complexity, determinism and unpredictability," (1990, p. 149). Conversely, these characteristics are depicted in Tyler and Marla's characters. Ever since meeting the two characters, the narrator has been through multiple instances of chaos and life-threatening situations (Palahniuk, p. 44; p. 52-53; p. 74-77, p. 191-192; p. 204-205). At the same time, the narrator is attracted to their strange orbits: to Tyler's charisma and his self-destructive behaviour and to Marla's romantic love and self-control. Therefore, these characters are identified as strange attractors because they have affected and disrupted the narrator's initial equilibrium.

Among the two, Tyler is perceived as the strongest strange attractor because he is someone the narrator is afraid of but idolizes altogether. Scott J. Wilson asserts that the ideal man as represented in *Fight Club* must possess these qualities: "...wealthy, strong, powerful, fit, a leader as well as a family man... also exceptionally attractive" (2008, p. 10). Every so

often, the narrator has expressed that he is worthless without Tyler: “I am nothing in the world compared to Tyler. I am helpless. I am stupid, and all I do us want and need things,” (Palahniuk, p. 146). From the narrator’s perspective, Tyler embodies everything about an ideal man should be: “Tyler is capable and free, and I am not” (Palahniuk, p. 174) and the narrator is consumed with Tyler’s philosophies.

On one occasion, Tyler preaches about freedom. He remarks that by losing everything, one is “free to do anything” (Palahniuk, p. 70). This analogy stimulates the narrator’s self-actualization. Similarly, Saeed Yazdani and Stephen Ross (2019) pinpoint that self-actualization is “an important issue in the interaction between literature and psychoanalysis” (2019, p. 71). According to them, “self-hate” does not only create fear but also restrict oneself from self-actualization (p. 72). In view of this statement, the narrator is susceptible to Tyler’s anarchist agenda because he diverts the narrator’s fear and rage towards himself to the world instead. As Tyler explains later: “You weren’t really fighting me. You said so yourself. You were fighting everything you hate in your life,” (Palahniuk, p. 167).

In one aspect of the strange attractors, Pritzker suggests that they “only dealt with specific points in a system” (2014, p. 11). This characteristic is akin to the strange attractors’ first appearance in the narrator’s life. Fundamentally, Tyler appears to the narrator in a specific point of his life: when the narrator is vulnerable (ridden with insomnia again) and weary of his former life. Therefore, his encounter with Tyler actually evokes freedom in himself to break free from the societal expectations and stereotypes. However, Tyler is not the only one who affects and influences the narrator’s life.

Before Tyler, Marla Singer is the first strange attractor in the narrator’s system. Unlike him, she represents the narrator’s innate urge to regain control and to have a romantic relationship in spite of the chaotic events in his life. However, their relationship initially begins with the narrator’s detestation towards her. After battling with severe insomnia, the narrator manages to cure his sleep disorder by going to the support groups for critically ill patients. According to the narrator, they have given him a certain sense of comfort that he is unable to find anywhere else: “This was freedom. Losing all hope was freedom,” (Palahniuk, p. 22). This period of time (before Marla and Tyler) signifies the narrator’s regeneration of his equilibrium. The disequilibrium only occurs when Marla appears, and Tyler is manifested.

At first, the narrator abhors Marla for her existence in the support groups. And yet, he still feels strangely connected with her because she reminds him of his own facade: “In this one moment, Marla’s lie reflects my lie, and all I can see are lies. In the middle of their truth,” (Palahniuk, p. 23). This suggests that Marla represents the narrator’s other persona: the one who resonates with the narrator’s feeling of guilt. In other words, if Tyler corrupt the narrator’s sense of morality, Marla brings forth his sense of decency. This observation is made because when the chaos ensues, Marla is the only one who helps the narrator uncovering the truth about Tyler and himself.

Shahizah Ismail Hamdan and Dinnur Qayyimah Ahmad Jalaluddin propose that “the relationship expectations, ideals and success... are determined by individual personalities and perceptions... and not just by social norms or expectations” (2019, p. 114). Therefore, the narrator’s relationship with Marla is not essentially a traditional romantic relationship but they are attracted to one another because of their expectations towards each other. Both Marla and the narrator are saved by Tyler. Albeit his damaging behaviour, he has saved them in his own twisted ways. Even though they are essentially connected with Tyler, the narrator confesses that he likes her (Palahniuk, p. 197) regardless of Tyler’s warning. And Marla continues to stay with him regardless of the dangerous situation (Palahniuk, p. 204).

And so, it is concluded that both of them need each other. This can be seen in another instance when Marla helps the narrator by pointing out the truth about the narrator and Tyler Durden’s identity (Palahniuk, p. 160). Her action directly affects the narrator’s decision to stop

Fight Club and Project Mayhem (Palahniuk, p. 180). Following that decision, the narrator requests for Marla's help in reversing Tyler's actions: "And if I do fall asleep, Marla has to keep track of Tyler. Where he goes. What he does. So maybe during the day, I can rush around and undo the damage," (Palahniuk, p. 175). With Marla's help, the narrator is in control again as he undoes the damages Tyler has done.

Taking this into account, Marla acts as the one who influences the narrator to regain control, hence, moving forward to a new equilibrium. As Gleick claims, although we have the tendency to see chaos as disorderly, "sensitive dependence on initial conditions serves not to destroy but to create" (1988, p. 311). In other words, strange attractors may cause disruption to the dynamic system, but they will still create new outcomes from the chaos. Although she is established as one of the strange attractors in the narrator's life, Marla Singer portrays abilities to create order rather than as an agent of destruction. Meanwhile, Tyler Durden arouses the narrator's repressed desire to break away from his old self.

STRANGE ATTRACTORS, THE BUTTERFLY EFFECT AND BIFURCATIONS

In regard to the extent of the butterfly effect and bifurcations, it is reminded that *Fight Club* is a fictional text sets in a fictional world. In literature, the written ending emphasizes the end of the chaotic events, even though realistically, it never truly ends. Comparing it to the natural world, when chaos ensues, there should be more bifurcations appear which resulting to infinite changes. This is noted by Gleick, which suggests that the system that starts in equilibrium state before the changes may split it into bifurcations and it will keep repeating the patterns before "breaking off once again to renewed chaos," (1988, p. 73). Equivalent to the butterfly effect, each action does not only produce corresponding reaction, but it leads to many, diverging trajectories where nobody can predict accurately what would happen in future as a result of the choice we make in present.

Nevertheless, the events transpired in literature usually have a similar framework with beginning, middle and end segment. No matter how the story unfolds, the narrative structure in literature should consist of these three major points. As stated by Ilya Prigogine and Isabelle Stengers: "We now know that far from equilibrium, new types of structures may originate spontaneously. In far-from-equilibrium conditions we may have transformation from disorder, from thermal chaos, into order" (1984, p. 12). Hence, it is pertinent to note that the chaos epitomised in literature may have three points of crisis: the initial equilibrium (beginning), the chaos (middle) and the new equilibrium (end).

For this paper, the emphasis is put on mapping these bifurcations that branched out from the narrator's string of decisions when he is in contact with strange attractors. To do so, one must look at the connection between several important events and the consequences that come from the narrator's decisions in those events. To recapitulate, there are two strange attractors in the narrator's life: Marla Singer and Tyler Durden. At the start of the story, the narrator has regained his equilibrium when his insomnia is cured. However, the disequilibrium begins when Marla first appears. Perceived as one of the major events in the narrator's life, his encounter with Marla subsequently produces two bifurcations: one, the narrator becomes insomniac again and two, Tyler is now manifested when the narrator is asleep.

In chapter 2, when the first bifurcation begins, the butterfly effect leads to the narrator's decision to incorporate Marla in his support group meeting schedule (Palahniuk, p. 38). When the narrator decides to exchange phone number with Marla in chapter 4, his decision later leads to another bifurcation in chapter 7 when the narrator decides to ignore Marla's phone calls (Palahniuk, p. 60). Although this action seems insignificant, the narrator's decision permits Tyler to answer her phone calls instead which directly leads to Marla's frequent stays in their house in chapter 8.

After allowing Marla into his life, the narrator is grown attached to her. This is shown later in chapter 13 when the narrator and Marla share intimate conversation about their past lives and his inclination to make her laugh (Palahniuk, p. 102-106). Even though it is deemed as a small gesture, their relationship soon blossomed. Unknown to the narrator, his decision to be with Marla at this particular time actually saves him from his demise later. This is reflected in the subsequent chapter 21, 23, 27 and 29. In the chapter 21, when Marla points out that Tyler and the narrator is the same individual, this action influences the narrator to believe and request for Marla's help (Palahniuk, p. 175). His decision to trust Marla leads to another bifurcation in chapter 27 (when Marla tells the name of the narrator/Tyler) and another one in chapter 29.

In chapter 29, when the narrator is plagued with Tyler's self-destructive thoughts, Marla and some of the people from support groups come and implore him from killing himself (Palahniuk, p. 204). Symbolically, her action represents the narrator's solution from his former equilibrium where the support groups saved him from insomnia. Marla's action leads to the narrator's final decision where he shoots himself as a means to kill Tyler and putting a stop to the anarchy. Even though the first wave of bifurcation that stems out from the narrator's disequilibrium begins with Marla, it ultimately saves the narrator's life.

On the other hand, Tyler provides opposite role than Marla. Signifying as the start of the second bifurcation, Tyler is manifested after the narrator's encounter with Marla. Following the narrator's remarks on his current state due to insomnia (Palahniuk, p. 25), he first encounters Tyler at a beach in chapter 3 (Palahniuk, p. 33). Afterwards, the narrator exchanges phone number with Tyler, and this decision leads to another bifurcation in chapter 5 where an explosion occurs in the narrator's apartment when he is away. It is later suggested that Tyler is the one responsible for the explosion (Palahniuk, p.110).

After the incident, Tyler acts as a saviour by giving the narrator a home to stay. However, his decision to follow Tyler consequently and prominently paves the chaotic course of the narrator's life. When they meet up in a bar later in chapter 6, Tyler asks the narrator to hit him (Palahniuk, p. 46). Similar to the previous events with Marla, this incident portrays significant value in the narrative structure. This is because, there are two major bifurcations that emerged from this particular event: one, the establishment of Fight Club in chapter 9 (Palahniuk, p. 53) and two, Project Mayhem in chapter 16 (Palahniuk, p. 123).

Initially, the narrator remarks that he refuses to die without "a few scars" (Palahniuk, p. 48) and Fight Club allows him to feel more "alive" (Palahniuk, p. 51). However, as he continues fighting, he realizes that Fight Club gives him release from his rage towards the people around him (Palahniuk, p. 53). Following this bifurcation, another bifurcation emerges in a form of Project Mayhem. Unbeknownst to the narrator, Project Mayhem is an endgame for Tyler. This project stems out from Tyler and the narrator's rage to much broader scale – the world: "This was the goal of Project Mayhem... the complete and right-away destruction of civilization," (Palahniuk, p. 125).

As a result of this decision, more bifurcations branched out in chapter 17 and 24. In chapter 17, Tyler demands more young men to join them. To do so, only resilient men are chosen (Palahniuk, p. 129). These men are labelled as space monkeys because according to Tyler, they are the people who act according to the instructions with no question asked: "...do the little job you're trained to do. Pull a lever. Push a button. You don't understand any of it, and then you just die," (Palahniuk, p. 12). This is alluded to the monkeys and apes that were sent into space by NASA as test subjects before sending humans. Since Project Mayhem is Tyler's first attempt to construct anarchy, the members are considered as test subjects as well, akin to the pawns in chess game.

As his followers and power grow stronger, Tyler's grip on the narrator's ability to make his own decisions stays longer and potent. When the truth is revealed, it then leads to chapter 24 where the narrator attempts to stop both Fight Club and Project Mayhem, but his efforts are

thwarted by the followers (Palahniuk, p. 179). It is then revealed in chapter 26 that Tyler has instructed them to do so whenever anyone (including the narrator/Tyler) requests to stop the project (Palahniuk, p. 187). Under this circumstance, his next decisions (influenced by both Marla and Tyler) then leads to chapter 29 where the narrator decides to commit suicide in order to stop Tyler and ultimately, the chaos (Palahniuk, p. 205). Despite being part of the second wave of bifurcation, Tyler manages to not only jeopardize the narrator's life but also the whole world.

THE BUTTERFLY EFFECT AND TODOROV'S FIVE STAGES OF NARRATIVE STRUCTURE

Based on the findings above, the narrative structure of *Fight Club* can be re-arranged following Todorov's five stages of narrative structure. By omitting unnecessary events and only focus on the major events surrounding the protagonist, this ideology works equally with the concept of chaos theory specifically on the recognition of equilibrium and disequilibrium. Chaos theory's foundation relies on the orderly pattern within disorderly events. Thus, the root of chaos can be traced back by listing the important events created by the narrator's string of decisions and bifurcations that stemmed out from them. This association is portrayed and represented in the following reconstructed version of *Fight Club* by using Todorov's five stages of narrative structure:

1. **The state of the equilibrium at the beginning.** This stage indicates control and order at the start of the butterfly effect. Without following the original structure of the story, the novel should begin with the narrator depicting his current situation after recovering from a chronic insomnia (Palahniuk, p. 18). With the help from the critically ill patients and cancer survivors of various support groups, the narrator eventually regains solace from them: "Walking home after a support group, I felt more alive than I'd ever felt... And I slept. Babies don't sleep this well" (Palahniuk, p. 22).
2. **The disruption of the equilibrium.** This second stage marks the loss of control and order in the narrator's system. Disequilibrium begins when he first encounters the strange attractors: Marla Singer in chapter 2 (Palahniuk, p. 16-24) and Tyler Durden in chapter 3 (Palahniuk, p. 25-33). The bifurcations stemmed out from his decisions are influenced by both of them and this leads to one major event which is the establishment of Fight Club in chapter 6 (Palahniuk, p. 48-54). Furthermore, this particular event also becomes the turning point as it later causes the establishment of Project Mayhem in chapter 16 (Palahniuk, p. 118-126).
3. **The character's recognition of the loss of equilibrium.** This third stage is when the chaos finally reigns and overpowers the character's abilities. The narrator realizes Tyler's influence has grown strong and overcome him (Palahniuk, p. 114). In addition, he finally starts to apprehend the loss of equilibrium in his system in multiple instances such as in chapter 15: "Nothing is static. Everything is falling apart," (Palahniuk, p. 112) and again in chapter 23: "Everything is still falling apart," (Palahniuk, p. 169). His descend into chaos and the recognition of chaos in his world is reflected again in chapter 27: "The world is going crazy. My boss is dead. My home is gone. My job is gone. And I'm responsible of it all," (Palahniuk, p. 193).
4. **The character tries to bring back the equilibrium** to regain the control over chaos. This fifth stage begins after the narrator discovers Tyler is his hallucination: "Tyler is a projection. He's a dissociative personality disorder," (Palahniuk, p. 168). This epiphany leads to the narrator's decision in asking for Marla's help in chapter

23 (Palahniuk, p. 170) before trying to stop the Fight Club and Project Mayhem altogether. However, the narrator is ignored and threatened by the members of Project Mayhem in chapter 24 (Palahniuk, p. 179-180). Regardless of his attempts, he is unsuccessful and realizes that his initial equilibrium cannot be recovered thus pushing him to kill Tyler by shooting himself in chapter 29: “I’m not killing myself... I’m killing Tyler,” (Palahniuk, p. 205).

5. **The re-establishment of the initial equilibrium by creating a new one.** This fifth and final stage marks the end of the chaos in the narrator’s dynamic system but also the beginning of his new equilibrium. It ends in chapter 30 with the narrator ambiguously narrates his current situation (Palahniuk, p. 206-208). In his last narrative, the narrator describes his place as a hospital which suggests that he either survives the suicide attempt then sent to asylum: “...somebody brings me my lunch tray and my meds...” (Palahniuk, p. 208), or he actually dies and considers the hospital as his own version of heaven: “I can sleep in heaven,” (Palahniuk, p. 206). Regardless, a new equilibrium is established after the initial equilibrium is destroyed following the end of the bifurcations caused by Tyler and Marla after his suicide attempt.

Following this reconstructed version of *Fight Club*, it is believed that Todorov’s narrative theory can be implemented in literary works to pinpoint the starting and ending point of the chaos itself. The butterfly effect originates from the narrator’s close contact with the strange attractors causes various bifurcations, but these trajectories can be mapped in an orderly pattern. Conversely, by following the basic narrative structure of literature, the bifurcations actually end in chapter 29 before creating a new equilibrium in chapter 30.

Nevertheless, the ambiguous ending in chapter 30 may suggest that the outcomes from the chaos may never end completely as the narrator realises that the followers of Fight Club and Project Mayhem would never leave his side and awaiting for his return (Palahniuk, p. 208). This shows that even though Tyler has died, and the narrator has created a new equilibrium, the consequences from his previous string of decisions will always lead to another set of bifurcations. This observation corresponds with the general notion of chaos theory where “the universe can renew itself from within” (Yas et al., 2018, p. 173) without any external force. Hence, an individual like the narrator may “thrive on disorder” and “reshape himself internally and set new attractors” (Yas et al., 2018, p. 173) after the new equilibrium is established.

CONCLUSION

One of the repetitive ideas in *Fight Club* is the rules and regulations created by the narrator/Tyler. While the novel is seen as chaotic at the surface level, when going through each chapter layer by layer, there are a set of rules for both members of Fight Club and Project Mayhem to adhere to. Yet ironically, Tyler wants to destroy a symbol of civilization which is undeniably, built from the society with rules and regulations. Furthermore, Project Mayhem has its own divisions of committees and assignments for the space monkeys such as Assaults and Mischiefs Committees. This methodical custom of Fight Club and Project Mayhem equivalents with the chaos theory’s foundation: that order does exist within disorder.

As Gleick claims, in life, “a chain of events can have a point of crisis that could magnify small changes” (1988, p. 23) and in *Fight Club*, these small changes are the narrator’s seemingly small actions and decisions. Initially, the narrator leads a superficially balanced, normal life before meeting Marla Singer and Tyler Durden where they subsequently bring him

upon into chaos. Robert Flores, in his study on *Don Quixote* pinpoints the application of chaos theory in literary texts:

“The unevenness shown in the trace representing Don Quixote’s triumphs and defeats is the result of conditions inherent in all literary works: events do not recur in the same fashion in two different works, events do not share the same nature from work to work, and no two events of the same character are ever identical; hence, the distribution, character, and magnitudes of the disruptions are unique to each work.” (2002, p. 63)

Based on his statement, chaos is inherently evident in literary works with some literature might have more than the others. This paper is done to show the parallelism between chaos theory and Todorov’s narrative theory. Both theories utilize order and direction to map sequence of the events leading up to the chaos. Due to the lack of studies done on chaos theory and Todorov’s narrative theory, this paper is written to highlight the potential of applying both theories in literature studies. By merging these two theories, we might be able to apprehend our obsession with control and order and how our actions can impact everything in our world. Therefore, from this analysis, it is ascertained that chaos is prevalent in every aspect of life including its representation and chaos theory and narrative theory can be integrated to analyse literary works.

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