AN OUTLOOK OF THE THEATRE OF ABSURD VIA THE FRAMEWORK OF CHAOS THEORY

Saeid RAHIMIPOUR¹

Abstract

The detection and the application of principles of other branches of science and art has been influential in reforming and forming new ideas and interpretations in other areas of science. This article has dealt with the detection and justification of the principles of chaos theory in the plays of postmodern dramatists. The postmodern absurd theatre can be closely justified at the shadow of the principles of chaos theory mainly regarding the themes afflicting humanity at postmodern era. The article makes it clear how the themes can best be justified within the frameworks of chaos theory and how these chaotic themes can lead to tranquilized condition of human being via the framework of dramatic art. This has enabled the unseen intumult layers of human mind regarding his condition and being emerged, made tangible, and get soothed in its condition, a phenomenon whose illustration would be impossible with no other way round. Finally, the paper presents the finding that the chaotic state of mind and being of postmodern man based on the chaotic state of the postmodernism era would capture the significance and meaning built based on his own findings and understanding.

Keywords: Theatre, Absurd, Chaos Theory, Outlook, Analyze

For sure, human being living in a society finds life as a system which is closely interrelated. Each section is dependent upon the other systems which would affect each other's' mechanism. When it comes to the question of ontological questions and dilemmas, such interrelatedness of theories and branches receive prime significance. What is at hand in this article is the detection of the principles of chaos theory in the field of postmodern dramatic literature. Whether this impact has been direct or implicit shows the fact that nowadays this impact of other principles and majors coexist at different levels of kinds of science and knowledge. It would be interesting and inspiring if we come up with the idea of the implications of the impact of these influences on each other. Dramatic literature which has proved to be the most impressive with the ontological and existential obsessions of different types can be justified and affected by many other factors. The one which is really novel and critical is the question of Chaos Theory and its principles.

A brief introduction of chaos theory emergence and its principles would pave the way for our understanding of the condition of modern drama, its style, and its theme development.

As has been mentioned by many intellectuals research on this topic indeed commenced with the meteorological studies. Some of the meteorological experts were working on the climatic conditions and the impacts of many diverse factors on the region and world climate. For two years, they surveyed the roughly moderate climate of a certain region and recorded all the alterations. A bar chart recorder was on from six in the morning and recorded the climate alterations. In the fall of the second year, the graphs drastically changed. At 6 pm, a violated graph revealed the symptoms of drastic climatic

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¹ Assistant Professor PhD, Farhangian University, Iran

alterations, but no sign of alterations could be seen. The next fall, they detected every observation. This year they came up with the results of their observations. Nearby, there was a lake to which a group of migratory birds came. They were the cause of the graph alterations. The mass flight of the birds caused their wing movements arouse a pressure in the atmosphere and this pressure was transferred to side air molecules and in the end got the bar graph set sensors. Using a computer program, he simulated the region and performed the program once with and once without the birds. Without the birds a tornado would form that would destroy 12 hectares of the region. In fact, the bird's flight prevented the formation of the tornado. After more serious and deeper studies and the simulation of the world atmosphere arrived a conclusion which was named the most famous motto of the theory of chaos. A butterfly' wing movement in Africa gives rise to a tornado in South America.

This is what roughly can be detected in the formation of drama. Prior to 20th century, dramatic structures resembled roughly the same in the earlier centuries. What happens when modern drama is changed in every aspect turning to non-drama? Such ideas have come into existence due to changes in the thinking mode of the dramatists and the alteration of the conditions of man at modernism and post modernism era. A close look on the theatre of the absurd reveals this reality that such changes in plot, setting, themes, atmosphere, and characterization are on the line of revealing some variations of man's obsessions and the way the staging mode of representation of literature tries to reflect them to the reader and the audience. The close detection of the changes show the strange attractions principle. Sudden changes in language and all other elements of the drama reveals butterfly effect causing and arousing some conditions of certain types. The cooperation and go-togetherness of all the elements of this theatre on the line of manifestation of themes of certain type resembles that of dynamic adaptation principle. The way the theatre projects its themes in the mind of the audience or the reader for the purpose of enabling modern man get along with his obsessions follow the principles of chaos theory. As has been asserted there are four principles in chaos theory namely butterfly effect, strange attractions, dynamic adaptation, and self-similarity. This paper directly and implicitly represents their manifestation in different elements of drama of absurd with the special references to the clues in the works of the prominent figures of the theatre of the absurd, Samuel Beckett and Harold Pinter.

On this line, Chaos theory can be defined as a field of study which studies the behavior of systems that are highly sensitive to initial conditions producing diverging outcomes which would be unpredictable and unachievable in any other way round. Accordingly, this is exactly what has happened in the principles of theatre in the theatre of the absurd. Language turns to silence for better explanation, setting gets strange and minimal, characters sound bizarre, and themes become existential and ontological, and the whole theatre becomes novel whose implementation and illustration can be seen in the works of the dramatists of this school of theatre. This is in congruence with what Merja Polinen has asserted regarding the mutual interdisciplinary sciences and theories.

"A detailed investigation of the writings on chaos theory and literature reveals within this seemingly narrow field a wide variety of epistemological assumptions, and comparing them can give us a clearer picture of what can and cannot be achieved by combining literary studies and the natural sciences" (Merja, 2008:1).

Chaos theory in modern literature

As has been stated:

Books which try to bridge the gap between science and literature are rarely successful: the gap is now too vast and the language has to be stretched too thin to reach across. An exception was Norman Rabin's Shakespeare and the Common Understanding, where the idea of complementarity, borrowed from physics, turned out to be so thoroughly right for Shakespeare. The term was briefly explained ("an electron must sometimes be considered as a wave, and sometimes as a particle. But that kind of tact is foreign to the chaos theorists, and Harriet Hawkins has fallen for their hype. There are several bright moments, as one expects from the author of that incisive survey of the "crisis" in Shakespeare criticism, The Devils Party, or the lively Classics and Trash. She has read a lot about chaos theory and is able to show how one of its principal sources of appeal is that, though based in mathematics, it has ramifications in many different "real world" situations, from weather description to geology to insect life and especially to computer science. She wittily quotes one of her chaos theorists on the Talmud, according to which God said at the creation: "Let's hope it works" which leaves history "branded with the mark of radical uncertainty." On Jurassic Park she has some good things to say, especially on the superiority of the novel to the film (yet to defend the film at one point she rather pointlessly quotes the Daily Mail critic, to the effect that even a child can understand chaos theory now). She is certainly right that one measure of the greatness of The Tempest or Paradise Lost is how many subsequent works of art spin off from the parent body though quite why this is relevant to chaos theory is not clear to me (Dreiser, T. 1987; 11).

Stephen H. (1993) with this regard has asserted that literary experiments in form, matching those taking place in modernist painting and sculpture of the same period, challenged the reader to re-examine and deconstruct preconceptions about the world. Berthold Brecht created modernist theatrical productions according to his theory of the alienation effect which was supposed to make the audience think and feel in new and critical ways by removing comfortable assumptions and not permitting the narrative to appear too much like reality. Hence, this theory may prove to be promising regarding the revelation of the ontological problems of man.

In the last decades, a revolution has occurred in the realm of natural sciences. This revolution deals with the understanding procedures and illustration of the phenomena by intellectuals who in the past presented their explanations in clear and resolute frameworks. They view the universe as systems that were in motion in accordance with deterministic nature laws which were predictable. Accordingly, they believed that the

effects were the output of the linear specific causes. Now, they emphasize the creative role of entropy and chaos and view the world as systems which act as self-adaptation and that the consequences of such a life style would be the existence of unpredictable and accidental states. Nevertheless, in this condition the natural deterministic laws still dominate. It has been revealed that systems behave in secular manner in which chaos results in discipline and vice versa. Nowadays, the simple view of the world operation has been changed to a paradoxical and sophisticated imagination of its operation. This new science is called sophistication theory, a branch of which known as the theory of chaos has attracted the world wide attention. The theory of "final discipline" or 'discipline of chaos" provides us with the tools for solving complicated problems in the chaos and alteration-stricken environment of today or the future. The following assertions confirms such condition as follows:

William W. Demastes, in his book *Theatre of Chaos*, quoted from Stephenson (2006) notes that "given that both artists and scientists strive to understand nature and give that points of curiosity and matrices of approach are culturally influenced, it only makes sense that they will at least occasionally hit upon parallel conclusions."

In his Meditations on First Philosophy, René Descartes (1984) engages with precisely this question. At the outset of his argument to prove the existence of God, Descartes supposes that his entire sensory experience of the world is the inspiration of some malicious demon of the utmost power and cunning [who] has employed all his energies in order to deceive me. I shall think that the sky, the air, the earth, colors and shapes, sounds and all external things are merely the delusions of dreams which he has devised to snare my judgement. I shall consider myself as not having hands or eyes, or flesh, or blood or senses, but as falsely believing that I have all these things.

Whether knowing this fact or not, one can imagine that Samuel Beckett and Harold Pinter may or may not have been aware of this principle and have applied it to the field of drama. The sheer prevalence of chaos in all aspects of postmodern life has targeted modern man's view of his self and identity. It is through this viewpoint which one comes up with the concerns of philosophers: why the already-taken-for-granted-held-meaning creature has turned to the passive of all? Why has he been obsessed with the very idea of his being, self, and identity?

The plays of this theatre trend consider Descartes's philosophical problem of how we can have knowledge of our existential situation through the perception of external objects. It illustrates the subject's search for objective truth, for stability of perception, and thereby for the key question—confirmation of ontological status. George's is not the quintessential developmental journey of the bildungsroman, whose goal is to answer the question, "Who am I?" Instead, his objective is to solve the existential puzzle, "What am I?"—or perhaps more succinctly, "Am I?" (Stephan, Jenn, 2006). Î

The answer, for sure, could be detected in the chaotic state of the postmodern world, the entropic views of philosophical thinking, and the turbulent political, economic, social, and existential states of the current situation. The dramatists being well aware of

these characteristics as introduced from their own special orientation, namely personal, psychological, and social respectively have exercised the chaotic characteristics on all aspects of drama to reveal the underlying causes of man's blurred vision of his self and identity on the one hand; and through the appropriate chaos characteristics bring back stability to the ambiguous self, assign meaning to the absurd and menace-stricken existence of modern man, and finally justify his philosophy of being on the other hand.

The main characteristics of chaos systems as introduced are as follows: Butterfly Effect which rejects the linear cause and effect relationship and approves nonlinearity of the relationship between the phenomena and the systems meaning that a minute change in the initial conditions can result in vast unpredictable changes in the system and this is the footstone of the theory of chaos. In this theory, it is believed that in all phenomena, there are points a minute change upon which creates enormous alterations. The playwrights in their illustration of the current existential paradoxes and dilemmas imposed upon man amidst the controversial debates over the philosophy of his being, have been technically able to transform the theater in all its aspects to guarantee its feasibility in handling these themes. To them, this turbulent state of man arouse by the aforementioned factors have contemporarily culminated in the sheer ambiguity and instability of everything and this has been exacerbated when it comes to the abstract, mental, and existential man's view of himself. The current wondering state of man is the consequence of the changes assigned on man's existence in accordance with other advances in other aspects of modern life. Their duty on the line of unraveling the underlying motives and providing solutions for them, no doubt, calls for their idiosyncratic techniques. In this regard, they have not been lagging far behind other intellectuals.

Characteristics of modern literature

Modernist literature was a predominantly English genre of fiction writing, popular from roughly the 1910s into the 1960s. Modernist literature came into existence due to increasing industrialization and globalization. New technology and the horrifying events of both World Wars (but specifically World War I) made many people suspect the future of humanity: What was becoming of the world? Writers reacted to this question by turning toward Modernist sentiments. Gone was the Romantic period that focused on nature and being (Smethurst, P. 2000) modernist fiction spoke of the inner self and consciousness. Instead of progress, the Modernist writer saw a decline of civilization. In the field of psychology in the theories of great psychology genuine, Freud, this procedure has been taken into account. He asserts that the root of all human behavior is rooted from childhood (the initial conditions of for the theory of chaos). Through the detections of these behaviors from the childhood analyses to their current behaviors one can come up with different ideas which can now be justified differently and they can be ascribed to the initial status of their being and existence (Sigmund Freud 1995).

Most similarly, the playwrights have similarly violated the already established dramatic style, created a new chaotic language and crying out language of silence and sound, staged characters at the mercy of absurdity and panic to death, meaningless and bizarre settings, and the theme of ever struggle and quest for self and identity whose best examples can be seen in the works of Samuel Beckett, Harold Pinter, Arthur Miller, Tennessee Williams, Henrik Ibsen, and many more dramatists of this school of thought mainly known as the theatre of the absurd which has to the researcher's best recollection has been departed from its already established and has been formed in congruence with the demands of the postmodern time and era.

Dynamic Adaptation: In the ever changing current situations, the entropic systems interact with the environment like living creatures and for achieving success are in constant creativity and innovation. When a system approaches an adaptable equation for the sake of progression needs inner crucial changes and these changes per se instead of adaptation and application with the environment creates a constant progressive adaptation. The output would be the alteration of the stabilized relationship between the people, behavior patterns, career patterns, attitudes, ways of thinking, and cultures. Humanity, his definition of being, too, has lent itself to reappraisal. That is why he drastically turns down all the established metaphysical, religious, and philosophical doctrines and gets involved in constant search for the meaning of his existence so as to update, challenge, or revive the current one. In such chaotic conditions minute changes can result in drastic changes in the systems (here man's view of his self, being, and identity) and under these circumstances the butterfly effect alongside the progressive adaptation (the output of the search manifested in the characters' behaviors in the introduced plays) is crystallized that is to say, in Adams' terms to get out of habit(absurdity) and get to life(meaning) through the chaos creation illustrated in the nebular state of man's view of his existence.

Strange Attractions: Although nonlinear and unpredictable in behavior, strange attractions are systematic patterns which come out of the existing entropy of the system and the chaos. They are everywhere. Whatever we see as chaos in the first sight, in the long term and with the passage of time turns into a regular system working systematically. Drastic alterations, unpredictable changes, critical movements and... all in their components possess a kind of discipline reminding one of the Inca tribes' patterns whose seemingly shapeless patterns at a longer distance prove significantly meaningful and reveal well organized shapes and patterns. "We have often noted the ability of small, unnoticed events to alter radically the way events subsequently unfold" (Smith, 2001:262)

Hamm: Why don't you finish us? (Pause)I'll tell you the combination of the cupboard if you promise to finish me

Clov: I couldn't finish you. (Endgame, 37)

"In *Endgame*, characters subject their bodies and their language to a minor treatment, discovering modes of existence that conflict with majoritarian organizations and institutions" (Shield, 2005: 119)

ESTRAGON: The best thing would be to kill me, like the other.

VLADIMIR: What other? (Pause.) What other?

ESTRAGON: Like billions of others.

VLADIMIR: (sententialls). To every man his little cross. (He

Sighs.) Till he dies. (Afterthought.) And is

Forgotten. (WFG, P.72)

They are afflicted with an incurable disease known as entropy.

Hamm: How would you know if you were merely dead in your kitchen!

Clov: Well...sooner or later I'd start to stink.

Hamm: You stink already. The whole place stinks of corpses.

Clov: The whole universe

Hamm: (angrily) to hell with the universe (Endgame, p.45)

ESTRAGON: Well? If we gave thanks for our mercies?

VLADIMIR: What is terrible is to *have* thought. ESTRAGON: But did that ever happen to us? VLADIMIR: Where are all these corpses from? ESTRAGON: These skeletons. (*WFG*, *p.75*)

Clov: He's crying. (He closes lid, straightens up.)

Hamm. Then he is living (Endgame, p.41)

The characters are persecuted by an anonymous and hostile "ils". Violence, in all its forms, physical and psychological, is everywhere" (Visniec, 1996:15-16).

Clov: (fixed gaze, tonelessly) Finished. It's almost finished, nearly finished, it must be finished. (Pause) Grain, upon grain, one by one suddenly, there's a heap, little heap, the impossible heap. (Pause) I can't be punished anymore. (Pause) I'll go now to my kitchen, ten feet by ten feet, and wait for him to whistle for me. (Becket 1958:12)

Regarding the above extract from Endgame Sikroska (1994) asserts that the reader and the viewer "is thrown into the middle of the story and, apart from information of a highly metaphysical load which can be inferred from the context, there is never a hint that the dialogues will be built into some sort of action".

Such a state shows that the problems the characters are involved in are somehow unpredictable and the "threatened chaos of information overload. In literature it is being used to explore the nonlinearity and fragmentary, multiple perspectives that characterize so many modern works. It usually emerges that there is little truly lawless or disorderly about what is being studied. Chaos, in chaos theory, is not the same as total disorder but, rather, a positive force in its own right [...] chaos theory provides a model for mingling order and disorder.(Hayles 1990)

Regarding the application or detection of the features of this theory and the analysis of the plays and playwrights at hand, one can detect the presence and application of chaos theory to dramatic literature, coming up with the following ideas and implications regarding two of the greatest pioneers of this school of theatre as it is sometimes called avant-garde Theatre as "the most significant efforts of the avant-garde"

do continue to involve the self-conscious exploration of the nature, limits, and possibilities of drama and theater in contemporary society" (Cardullo, 2015):

- 1. One of the dominating themes in the major works of the two great noble-prize winners' major plays which is the ambiguity of self and identity proves to be obviously a great existential obsession of modern man which is per se an offshoot of the postmodern (the initial state of butterfly effect) era reflected in the two great playwright's theatres which as "some literary critics view any nonlinear play as being "chaos structured", [May be Beckett and Pinter like] Stoppard deliberately crafted a structure that embodies essential attributes of deterministic chaos " (Fleming, 2013:5).
- 2. Samuel Beckett's binary creation of characters of complementary nature and behavior (stranged attractions) realized as pseudo-couples technique as manifestation of strange attractions deployed by him proved significantly useful in clarifying and manifesting the instability, relativity, and ambiguity of the characters self through which Beckett has tried to project upon the audience their blurred vision of their selves in the hope that they revive and restore a clear and stabilized view of their selves and identities.
- 3. The chaotic deployment of the element of entropy (chaos condition) adopted from the physics laws on the line of creating maximum entropy for violating the audience agitated, false state of their selves and identities proves promising in reflecting the character's failure in realizing their true selves and paves the way for the viewers or readers to better come up with a solution to their own self ambiguity at this modern era.
- 4. Harold Pinter's revelation of the character's quest for their selves and identities in his two great plays *The Birthday Party* and *The Caretaker* is a true duplication of the entrapped modern man in his evasive, unstable view of his self and identity which is at the mercy of the era's diverse problems.
- 5. Harold Pinter clarifies and introduces menaces of different types (as initiator for the creation of butterfly effect) in his special comedy of menace hovering over the characters' behavior and their own view of themselves and identities. It manifests these sources of physical, mental, psychological menaces as the underlying motif behind this instability and turmoil of character's and in reality the viewers or readers' state of their selves and identities.
- 6. Both Samuel Beckett and Harold Pinter through the commonality of the Theatre of the Absurd (as the element of self-similarity and dynamic adaptation) advocate the existential absurdity of life and existence as one of the main underlying factors behind man's ambiguous state of his self and identity come into existence through the operation of Butterfly Effect.
- 7. Regardless of the two playwright's commonality, each through his own idiosyncratic theatre and view point (indicating dynamic adaptation), that is to say, Beckett from more personal and philosophic; and Pinter from more social and psychological ones manifest the entropic condition of man so as to reveal the chaotic state of man in every possible aspect. Maybe like psychodrama, the absurd drama too "Chaos in psychodrama is also the moving force behind the development of a group and the protagonist. Each

member of a psychodrama group brings into the group a set of their patterns of thought, feelings, standpoints, behavior and interaction with other

Members" (Drakulić, 2014:7).

- 8. Absurdity, Subservience, and many personal, philosophical, social, political, and psychological factors as the major chaotic characteristics of postmodernism (the origins of strange attraction) have given rise to the in-tumult status of modern man regarding his sense of his self and identity revealing strange attraction of this theory in the absurd theatre. "Postmodernists, however, often demonstrate that this chaos is insurmountable; the artist is impotent, and the only recourse against "ruin" is to play within the chaos" (Sharma and Chaudhary, 2011:2)
- 9. What the characters and the authors have tried to project upon the viewer and the reader is the fact that they enhance men's chaotic condition on the way of getting to stability (self-similarity principle).
- 10. The way the works of the absurd theater's works can be justified under the shadow of the chaos theory helps make the justification of the works of literature far ahead of its real justification (dynamic adaptation principle). "This "chaos" is simply epistemological complexity resultant from unknown factors. Hidden order remains a foundational certainty within chaos theory and its methodology offers new ways of exposing it" (Smith, 2001:7). It reveals the fact that some theories of science and art should be applied to other works of science so that they can be well analyzed and understood at the shadow of these disciplines. "Being most of the time unable to move around in the audience, the spectator remains a seated captive audience which has to accept "undigested" raw information and put them into a larger explanatory whole. There is nothing 'there' to look for in a traditional sense. There are only raw data to construct something" (Saner, 2001:7) in the chaotic source of information and the upside down condition of the already established believes and theories.
- 11. The novelty of the application of such disciplines makes the themes of the works to be better understood. The initial status of the themes of the plays show some step wise application of the theories so as to be better tangibly understood. The existential obsessions at hand in the works of these playwrights reveal the corroboration of the theories and the works on the line of their better manifestation.

The above mentioned elements show the tacts of the dramatists deployed in their reformed theatre to convey the desired message and the intended theme which can be all as the manifestation or the real exercise and application of the elements and the principles of the Chaos Theory. "This "chaos" is simply epistemological complexity resultant from unknown factors. Hidden order remains a foundational certainty within chaos theory and its methodology offers new ways of exposing it" (Smith, 2001:265). The dramatists may have known nothing about these principles in their literary creation but the justification of their works specifically regarding the themes which are impossible to be explained in any other way round, here the question of existential obsessions, would be fascinating academically knowing the fact that as Sardar quoted from Drakulić (2014) has

asserted "The Birth of the Gods" Hesiod (8th-7th century BC) depicted Chaos as the origin of life, and in his cosmological poem "Theogony" chaos precedes everything" (Sardar, 2001).

Conclusion

In the seemingly chaotically non theatre drama of absurd of Samuel Beckett and Harold Pinter in all its aspects lies their efforts on the line of implying meaning. "This "chaos" is simply epistemological complexity resultant from unknown factors. Hidden order remains a foundational certainty within chaos theory and its methodology offers new ways of exposing it." (Saner, 2001:6) In their portrayal of meaningless, absurd state of man's existence, meaning, and stability emerges and resides in the mind of the audience and the reader. "While the macro level of the play's structure mimics an iterated algorithm, the micro level features a series of repetitions, parallelisms, textual echoes, and other acts of doubling. This structural layering is another example of deterministic chaos" (Fleming, 2013:6). What chaos theory puts forward in the realm of dramatic literature is the fact that on the line of helping man out to capture his stabilized view of his obsessions and achieving his true meaning of his ontological obsession, one realizes that chaos theory implementation "is imperative to push human being again towards seeing themselves as they really are" (Ionesco, 1958) whose major purpose is getting the man out of non-entity into a meaningful and self-achieved identity which is achieved following the principles of chaos theory from butter fly effect to dynamic adaptation to the strange attractions respectively exercised upon the elements of the theatre of the absurd.

References:

Cardullo, Robert (2015), Experimental theatre in the twentieth century: avant-gardism, the absurd, and the postmodern. Springer Netherlands: Neohelicon.

Drakulić, Aleksandra Mindoljević. Critical Reflections For Understanding The Complexity Of Psychodramatic Theory. Psychiatria Danubina, 2014; Vol. 26, No. 1, pp 12-19

Dreiser, T. (1987), Dreiser: Sister Carrie, Jennie Gerhardt, *Twelve Men*. New York: Classics of the United States, Inc.

Fleming, John. *'It's wanting to know that makes us matter'*: Epistemological and Dramatic Issues in Tom Stoppard's Arcadia', Multidisciplinary peer-reviewed journal on the English speaking world 8 | 2013

Freud, Sigmund, translated by A.A. Brill.(1995), *Basic Writings of Sigmund Freud* (Psychopathology of Everyday Life, the Interpretation of Dreams, and Three Contributions To the Theory of Sex), Published by Modern Library

Ionesco, E. Ni un dieu, ni un demon cashier de la comagnie. Paris nos. 22-23 May. 1958 p.131

N. Hayles, (1990). Chaos Bound: Orderly Disorder in Contemporary Literature and Science, Ithaca: Cornell University Press.

Polvin, Merja (2008). Reading the Texture of Reality Chaos Theory, Literature and the Humanist Perspective. University of Helsinki. http://ethesis.helsinki.fi

Ramen Sharma and Dr. Preety Chaudhary, Common *Themes and Techniques of Postmodern Literature of Shakespeare*, International Journal of Educational Planning & Administration. Volume 1, Number 2 (2011), pp. 189-198

Raymond, Saner, Postmodern Theater: A Manifestation of Chaos Theory CSEND, Geneva, 12th February 2001

René Descartes, "Meditations on First Philosophy," in The Philosophical Writings of Descartes, vol. 2, trans. John Cottingham, Robert Stoothoff, and Dugald Murdoch (Cambridge: Cambridge University Press, 1984), Taken from and cited from Metatheatre and Authentication through Metonymic Compression in John Mighton's Possible Worlds Stephenson, Jenn. Theatre Journal, Volume 58, Number 1, March 2006, pp. 73-93 Samuel Beckett's Endgame. Studia Anglica Posnaniensia xxvii, 1994

Shiels, P. Beckett's Victors: *Guests without Qualities*. PhD Dissertation. Florida State University, 2005, p.119

Sikorska, L (1994). The language of entropy: A pragma-dramatic analysis of Samuel Beckett's {Endgame}, Volume Studia Anglica Posnaniensia, Issue 28, p.195-208 (1994)

Smethurst, P. (2000), the Postmodern Chronotope, Reading Space and Time in Contemporary Fiction. Amsterdam: Rodopi

Smith, Warren, Chaos Theory And Postmodern Organization. Int'l. J. Of Org. Theory & Behav., 4(3&4), 259–286 (2001)

Stephen, H, Kellert. (1993). In the Wake of Chaos: Unpredictable Order in Dynamical Systems, University of Chicago Press.

Stephenson, Jenn. Metatheatre and Authentication through Metonymic Compression in John Mighton's Possible Worlds. Theatre Journal, Volume 58, Number 1, March 2006, pp. 73-93 (Article) P. 76)

VISNIEC, M. Le dernier Godot, trans. Gabrielle Ionesco. Lyon:Conditions du Cosmogone, 1996. Pp.15-16

William W. Demastes, *Theatre of Chaos: Beyond Absurdism into Orderly Disorder* (Cambridge: Cambridge University Press, 1998), xv.taken from Metatheatre and Authentication through Metonymic Compression in John Mighton's Possible Worlds Stephenson, Jenn. Theatre Journal, Volume 58, Number 1, March 2006, pp. 73-93