

## Disorder in *Macbeth*, or May We Call it 'Entropy'?

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### Abstract

*With universalist or globalizing tendencies of thought, order is preferred while disorder is sought to be avoided at any price; the latter might generally be linked in politics to any kind of political dissidence, wars, conflicts, riots, etc. In psychology, everyone fears mental disorders. Ethics and theology, it is linked to the cursed notions of immorality and sin. However, with the emergence of the postmodern pessimist science of chaos, the word becomes much admired. In science as in art and the humanities, disorder is inevitable; it is rather a universal feature.*

*Order and disorder are often important issues in the Shakespearean tragedy of *Macbeth* (and in fact, in all Shakespearean plays). The scientific concept of 'entropy' which carries the meanings of disorder and uncertainty will be discovered on a metaphorical level. Hence, it will be relevant to represent the entropic historical context of the play, the entropic world of Scotland after the murder of King Duncan, the entropic characters of *Macbeth* and *Lady Macbeth* after committing the crime and the entropic language that characterizes the play.*

**Keywords:** disorder, entropy, pessimist, metaphorical level, entropic historical context, entropic world of Scotland, entropic characters, entropic language.

## Introduction:

It is enticing to begin with “beauty”; it can be seen and felt by the optimist's eye and if ever its existence is denied by the pessimist, it is still sought. This notion does not contradict art; it is rather the implied condition of its being; its essence. In his *Aesthetics*<sup>1</sup>, Baumgarten talked about “perfectible beauty” according to which, the beauty of an artwork corresponds to the degree of its organization and order.

It is worth saying that any work of art can be seen as a sum of codes or messages communicated to a wide range of readers and to be deciphered, these codes or messages necessitate order in the syntactic form as in the semantic content for the sake of the work's readability and comprehensibility. It is also not a new tradition that from the times of Greek philosophy, there was an association of the arts with the notion of order since the word ‘composition’ itself literally means ‘to put things in order’. This association, however, does not deny the fact that disorder may exist. It is “opined that ideally, art must contain both the ordered and the disordered”<sup>2</sup> since “[w]hat is totally ordered can be perceived as static and boring...Yet what is totally disordered is incomprehensible”<sup>3</sup>.

In due course, if it is argued that “[t]he comprehensibility of literary texts may be associated with low entropy”<sup>4</sup>, it is not odd to argue that their incomprehensibility of them may be associated with high entropy, the question then arises: what is *ENTROPY*?

### 1- Definition of Entropy:

Because many have borrowed the notion of entropy into practically every area of intellectual debate, it is relevant to give some definitions of the term presented by the wide variety of authors who “range widely from apocalypticists to mathematicians, physicists and physicians, to information theorists, to musicians and filmmakers, [and] to art and literary critics...”<sup>5</sup>

First, it should be affirmed that it is derived from the Greek ‘*entropia*’ that is ‘transformation’, ‘*trope*’ that is ‘turning’<sup>6</sup>. The term was initially discovered in the field of physics by the German physicist Rudolph Clausius in 1850. With his Second Law of Thermodynamics or what is called ‘the pessimist/hopeless option’, the universe is considered as a closed system in which there is a continuous loss or dissipation of energy making this system move from a higher level of order to a more disordered state. The universe then reaches

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<sup>1</sup> See “Kant’s Critique of Baumgarten’s Aesthetics”, J. Colin McQuillan. St. Mary’s University [https://www.academia.edu/Documents/in/Alexander\\_Gottlieb\\_Baumgarten](https://www.academia.edu/Documents/in/Alexander_Gottlieb_Baumgarten) (consulted on 28 March, 2015)

<sup>2</sup> Davis, Philip J. “Entropy and Society: Can the Physical/ Mathematical Notions of Entropy be Usefully Imported into the Social Sphere?” (p. 7) <http://www.dam.brown.edu/documents/Entropy.pdf> (consulted on 11 March, 2015)

<sup>3</sup> *Ibid.*

<sup>4</sup> *Ibid.* (p.5)

<sup>5</sup> *Ibid.* (p.3)

<sup>6</sup> Kurman, George. “Entropy and the “Death” of Tragedy: Notes for a Theory of Drama”. *Comparative Drama*, vol.9, no.4, 1975-76 (p.284) <https://wmich.edu/compdr/Pages/Author%20Links/K.htm> (consulted on 9 March, 2015)

equilibrium or 'heat death'. This tragic ending to nothingness is irreversible and as such, entropy is destined to govern humans' and all living creatures' future. Being so, "[i]f we turn now to [...] tragedy, the applicability of the concept of entropy becomes readily apparent"<sup>7</sup> since the archetypal tragic situation as defined by Geoffrey Brereton is "that of the individual or the community going down a slope which leads to destruction"<sup>8</sup>.

The meaning of entropy in this case is mainly metaphorical since "the concept is used more or less as a metaphor or synonym for chaos, disorder, breakdown, dysfunctions..."<sup>9</sup>. Then, no wonder that "there have been alluded to or defined implicitly psychological, social, [linguistic and] literary entropies"<sup>10</sup>.

I will deal with entropy metaphorically while considering briefly the historical context of *Macbeth*, the setting of the play, the major characters (Macbeth and Lady Macbeth) and the play's linguistic complexity.

## 2- The Interplay Between the Historical Context and the Fictional Text:

Understanding entropy metaphorically, one can talk about *social entropy* (italics mine). For instance, "in the social sphere, it (i.e. entropy) has been characterized as [...] disorder, disorganization... and incoherence"<sup>11</sup>. While having information about the historical context of *Macbeth*, understanding the play will be more probable. It is worth saying that Shakespeare had most likely written it in 1606 after receiving an 'amicable letter' from his patron, King James I. The play, it is clear, was directly under the royal censorship and from this fact, its focal interest in the theme of good or bad kingship is justified.

Its diabolizing representation of witches is also justified since the King himself was known by his rigid persecution of them. Macbeth's treason of King Duncan is furthermore, an obvious reference to the Gunpowder Plot of 1605, also called The Jesuit Treason in which an attempt to assassinate King James I by a Henry Garnett, failed.

The misogynistic tone in the play best seen in Lady Macbeth, I venture to say, 'the fourth witch' along with the Three Witches is understood by the absence of a Queen of England to flatter, and the possible 'homosexual' orientation of Shakespeare. It is not shocking that the disordered, disruptive context of early seventeenth-century Jacobean England that was in a transitional period from female less rigid monarchy to male more rigid monarchy based on absolutism, had its impact on the playwright and as such on the composition of the play itself. The rigidity of the context might be a framing to the artistic imagination and that is why, among all the plays that were written during king James I's reign, *Macbeth* is considered as the one most clearly reflecting Shakespeare's

<sup>7</sup> Kurman, George. "Entropy and the "Death" of Tragedy: Notes for a Theory of Drama". *Comparative Drama*, vol.9, no.4, 1975-76 (p.285) "<https://wmich.edu/compdr/Pages/Author%20Links/K.htm>" (consulted on 9 March, 2015)

<sup>8</sup> *Ibid.*(p.267)

<sup>9</sup> Davis, Philip J. "Entropy and Society: Can the Physical/ Mathematical Notions of Entropy be Usefully Imported into the Social Sphere?" (p. 6) <http://www.dam.brown.edu/documents/Entropy.pdf> (consulted on 11 March, 2015)

<sup>10</sup> *Ibid.*

<sup>11</sup> *Ibid.*(p.3)

relationship with the sovereign. His tragedy, with an implied menacing tone, might have been written to remind the audience about the possibility of a terrifying chaotic and rotten state like Scotland in case of a 'cursed' assassination of its 'Representative of God on Earth' like King Duncan.

The play, as it is stated by many scholars, was also entitled in the backstage world of theatre as 'MacBee the Scottish King' or 'the Scottish Play' since some believed that it was cursed and thus would not mention its title aloud. So, let us consider now the entropic setting of *Macbeth*.

### 3- The Entropic Setting of *Macbeth*:

In *Macbeth*, there is a "re-enactment of the "heat-death" of [...] cities"<sup>12</sup>. Scotland, after the murder of King Duncan that goes "[a]gainst the use of nature" (Act I, scene 3), becomes a disordered kingdom moving quickly towards entropy or its catastrophic/ apocalyptic end. The inseparability between the king and the land (or nature) is much noticed since the fate of the latter was connected to the fate of the former and thus the criminal act resulted in the breakdown of the natural world: "And his gash'd stabs looked like a breach in nature (Act 3, scene 1).

From the beginning of Act I, scene 1, this disruptive process was led by the Three Witches whose very appearance was accompanied by thunder, lightning and fog. It was then led by Lady Macbeth who incited her husband to kill Duncan while challenging his sense of manhood and it was finally led by Macbeth himself. This chaotic world was sinking into a bath of blood after the murder not only of King Duncan but also of his chamberlains, Banquo, whose own descendents according to the Witches' prophecy would inherit the throne as well as Macduff's wife and children. It is not surprising that in such a hellish world, children who usually stand for innocence, regeneration and hope cannot survive. It is not surprising also "that darkness does the face of earth entomb" (Act V, scene 1) and "night encroaches on the province of day".

In such a disordered world, entropy does not only characterize the landscape but also the characters.

### 4- Macbeth and Lady Macbeth and Psychological Entropy:

In *Macbeth*, there is also a "re-enactment of the heat-death of individuals"<sup>13</sup> themselves. As a matter of fact, the entropic environment surrounding them affects them both physically and psychologically; they can be both considered as victims of entropy who are in "a gradual collapsing toward inertia or death"<sup>14</sup>. Being so, the physical deterioration can be seen in the symbolic emasculation of the 'fatherless' Macbeth who wears "a fruitless crown" and carries a "barren scepter" and in the possible sterility of Lady Macbeth who seems to convey an unconscious rancor when wanting her milk to be changed into gall. Her verbal violence goes against the conventional, stereotypical image of femininity that is also tightly linked to motherhood. Furthermore, the external physical deterioration is nothing else but a reflection of the inner decadence of Macbeth

<sup>12</sup> Kurman, George. "Entropy and the "Death" of Tragedy: Notes for a Theory of Drama". *Comparative Drama*, vol.9, no.4, 1975-76 (p.294) "<https://wmich.edu/compdr/Pages/Author%20Links/K.htm>" (consulted on 9 March, 2015)

<sup>13</sup> *Ibid.*

<sup>14</sup> Tanner, Tony. *City of Words*. New York: Harper, 1971 (p.143)

and Lady Macbeth. It is evident here that “in the play the outlines of [a] frightful psychic cloud”<sup>15</sup> is perceived. In a world moving towards its irreversible tragic end, both characters’ *psychological entropy* (italics mine) “increases until [...] a catastrophe (which takes the form of mental debilitation or even death or suicide)”<sup>16</sup> occurs. The reason behind such a spiritual disorder of the two characters is an immense sense of guilt following the commitment of the crime. It was Macbeth who was at first subject to a “fatal vision” of an imagined dagger that was “proceeding from the heat-oppressed mind” (Act II, scene 1). Just after the act of murder, his paranoid restlessness seemed obvious from his repetitive short and rapid questions: “who’s there, what, ho?”, “didst thou not hear a noise?”, “Hark”, “Whence is that knocking?” (Act II? scene 2).

Unexpectedly, Lady Macbeth also, who seemed impatient with her husband’s psychological disturbance and the one who finished the murder of King’s guards and placed the bloody dagger with them, succumbed herself to mental tortures. In Act V, scene 1, the latter’s “eyes are open”/ “but their sense is shut”; she clearly suffered from hysterical somnambulism and her disordered language was a reflection of her disordered psyche: “Out, damned spot! Out, I say! One: two: why, then, ‘tis time to do’t. Hell is murky”.

But, to what extent is the language of *Macbeth* is disordered and complex?

##### 5- Linguistic Entropy in *Macbeth*:

It is worth noting that *linguistic entropy* resides in the complexity of language; a complexity on terms of structure and meaning. For instance, the art theorist and psychologist Rudolf Arnheim stated that “the highly complex [...] works of Shakespeare [are] not easily grasped”<sup>17</sup>. Somewhere else, it is also emphasized that “Shakespeare seems hard to read.”<sup>18</sup>

The tragedy of *Macbeth*, for instance, is a “tragedy of language” and “communication death”. The play abounds with entropic language that is characterized by ambiguity, irrelevancy and redundancy. It is true that Macbeth and Lady Macbeth’s language is imperfect being a reflection of their mental disorder, but the Witches, the “imperfect speakers” as Macbeth once referred to, are the best distorting manipulators of it; they play with language that instead of communicating truth, it hides it. What they say is said in the midst of thunder and lightning, when earth has bubbles and the cauldron is boiling; that is in the midst of noise and ‘hurlyburly’, the ‘truth’ is distorted through inversions or the unusual word order: “Her husband’s to Aleppo gone (Act I, scene 3), chiasmus (i.e. two corresponding pairs arranged in a parallel inverse order: “Fair is foul, and foul is fair” (Act I, scene 1), redundancy of irrelevant information best seen in unnecessary repetitions: “And munch’d, and munch’d, and munch’d”/ “I’ll do, I’ll do, and I’ll do”/ “show me, show me”/ “ A

<sup>15</sup> McGee, Arthur. “Macbeth and the Furies”. Shakespeare Survey, ed. Kenneth Muir Vol. 19. Cambridge University Press, 1966 (p.55)

<sup>16</sup> Deskin, Sean. “Entropy in Two American Road Narratives” (p.3)

“<http://scholarworks.uno.edu/cgi/viewcontent.cgi?article=2226&context=td>” (consulted on 16 April, 2015)

<sup>17</sup> Arnheim, Rudolf. “On Order, Simplicity and Entropy” (p.140) “<http://www.jstor.org/stable/1572794>” (consulted on 3 April 2015)

<sup>18</sup> « Reading Shakespeare’s Language » « <http://web.calstatela.edu/faculty/jgarret/417/Reading-Shakespeare.pdf>” (consulted on 17 March, 2015)

drum, a drum” (Act I, scene 3). There is also equivocation or literary quibble in which something is said to mean another; here Macbeth is played on him, he is victim of his own verbal idealism: when in Act IV, scene 1, the witches warned him: “ Macbeth! Macbeth! beware Macduff” and when they insured him that “none of woman born/ Shall harm” him and that he “shall never vanquish’d be until/ Great Birnam wood to Dunsinane hill/ Shall come against him”; he felt secure since all men are “of woman born” and forests can never move. He was disillusioned later on when he learnt in Act V, scene 8 that the English army was advancing on Dunsinane shielded with boughs cut from Birnam wood (i.e. the forest was indeed coming to Dunsinane). Macduff, Macbeth also learnt, was not “of woman born” but was “untimely ripped” from his mother’s womb. Macbeth approached his irreversible tragic end. His murder and Lady Macbeth suicide meant a reestablishment of order in Scotland promised by Malcolm, the new king. Now, “that unnatural night, by reinversion, becomes day again with [his] help”<sup>19</sup>.

### Conclusion:

The inclusion of the notion of entropy in literature is still debated. Some see it as a good example of interdisciplinarity blurring the dividing line between it and science. Others think that with this very inclusion, the gap between the two fields of knowledge becomes even wider; for example, they consider that the applicability of entropy as an index to measure the syntactic and semantic complexity of a literary work is still very relative, which means that science can never be on equal terms with literature. On a metaphorical level, the utility of entropy has always been acknowledged; some goes further to say: “Art, Therefore Entropy”<sup>20</sup>.

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<sup>19</sup> Duthie, G. I. “Antithesis in ‘Macbeth’”. *Shakespeare Survey*, vol.19. Cambridge: Cambridge University Press, 2002 (p.25).

<sup>20</sup> See « Art, Therefore Entropy. Michel Mendès France, Alain Hénaut  
« [http://www.jstor.org/stable/1576055?seq=1#page\\_scan\\_tab\\_contents](http://www.jstor.org/stable/1576055?seq=1#page_scan_tab_contents) »

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