

The mathematics of Irony

Sponsored by Pink Pavilion bijou b&b,

12 Madeira Place, Brighton, BN2 1TN

[www.brightonpavilion.co.uk](http://www.brightonpavilion.co.uk)

[contact@brightonpavilion.co.uk](mailto:contact@brightonpavilion.co.uk)

01273 385959

*“elusive.. exclusive..*

*Ravishingly romantic”*

We discuss the deep structure within Shakespeares plays which we believe is an interesting application of the idea map schemata developed in previous works such as “a theory of culture, belief and social structure”. An idea map is a simple means to express linkages between ideas. Thus the idea of sun is linked to heat, light, day, truth, seeing, a holiday on the beach.

We propose that Shakespeare developed his plays from an underlying structure which is plainest and easiest to see in Romeo and Juliet. The theme of this play is Love, thus we see that the key to his plays is given by love and since “all the world is a play, all the men and women merely players”, the key to life is love. To prove this argument we have analysed the deep structure idea map of Hamlet as well. This confirms counter-intuitively that this has a deep structure of as much simplicity as Romeo and Juliet.

Romeo and Juliet can be expressed in idea maps as :

Captulet - Hates - Montague

I

I

Juliet - Love - Romeo

This is interesting since a very simple structure of mirroring, perhaps one could consider it being dialectical, occurs. The interesting thing is not only does love mirror hate as a concept but also in romeo and Juliet, romeo’s family love is opposition to juliets family love. Thus an inherent contradiction or tension between psychological and sociological occurs. This leads to irony defined as the

discordance between what one would expect to be correct and what actually happens. For example a love of such magnitude would lead to marriage, yet adding in the diametrically opposed houses leads to the opposite outcome. This tension is something that allows for a strong creation of drama and excitement.

Whilst this is clearly known, indeed we argue that Shakespeare deliberately made this clear to provide a key to his work which leads to scholar to reappraise the other plays he wrote. As a great playwright it is plausible given the sensitive nature of some of his ideas that he had to keep them hidden or at least difficult to decode.

The reader may be forgiven for seeing the complexity of Hamlet to be founded upon a deep structure similar to Romeo and Juliet. However within the play is this structure:

Claudius - Power - Madness - Plots, Murder

I

I

Hamlet - Love - Madness – Plots, Murder

Here we see that at the base of the production of the play is an antagonism between Hamlet and Claudius which in each case is an instance of madness though one issues from desire for power, whilst the other issues from love of one's father. In both cases the same effects of madness occur; plots such as Hamlets play within a play or Claudius ruse to poison Hamlet. Both engage in murder. And all are destroyed in the end. Thus Shakespeare is undermining the ideal and

legitimacy of the love of power whilst perhaps holding the reader to consider if pure love is more valuable.

Whilst the basic points given in this essay are not new ideas to any scholar or perhaps reader of Shakespeare, the fact that the same mirror structure occurs in both Romeo and Juliet and also Hamlet suggests that future research may consider if Shakespeare developed all his plays with the same underlying mirror structure in order to plan his plays and then let the characteristics of this structure dynamically develop a powerful and ironic play.

What is hypothesised is that this structure leads to irony, a complicated result which we believe may be due to the nature of complexity originating out of a simple structure which is the greatest of ironies. However modern mathematics suggests that complex structures can have a very simple generating structure.

Thus we consider perhaps a mirror dynamic equation (remember that a narrative is a dynamic system followed on a certain course under certain initial conditions).

Mirror Equations:

$$X_t = f(Y_{t-1})$$

$$Y_t = f(X_{t-1})$$

The idea map of mirrored concepts can be modelled as the above simple mirror equations. This kind of general structure leads to tension and oscillations leading to drama in

the sense of volatile time series data given a set of initial conditions.

The deep and powerful themes are connected to the mirror which lead the reader to bring together the concepts as a magical insight. Thus we believe that one could create a computer program that writes Shakespeare using methods apart from brute force algorithms by simply repeating the same mirror structure deeply contained in Shakespeare, whilst noting his poignant point that the key is love. The irony that a computer would never understand love yet perhaps be able to one day write Shakespearean quality plays is still deeper.

## Othello

We looked at the play Othello and found a similar deep simple structure however this time the mirror is not opposite concepts as in Romeo and Juliet, rather the key dramatic driving process in the narrative is founded on jealousy.

The four key characters are Othello, Iago, Emilia and Desdemona. We see this as the idea map in this play:

Jealousy – Iago – Emilia

I            I

Jealousy – Othello – Desdemona

The activating impulse of Iago is jealousy that he was not promoted by Othello in the army, whilst Othello's jealousy for Desdemona makes him kill her, thus setting off a

process that leads to a mutual self destruction. Emilia's relation with Iago and Desdemona's relation with Othello create an exciting and moving plot of tragedy.

The jealousy of Iago of another sets him off making plots with creating variation in information of different characters in the play to ultimately obtain revenge against Othello, though at a heavy price for Iago.

The interesting thing here is that the idea of not having something or the potential to lose something is a strong enough driver that it does not need an opposite concept in order to create a dramatic plot.

Similar to Hamlet, Othello's jealousy is for love whilst Iago's jealousy is for status- power. Whether this is in some ways a furthering of the bard's theme is unclear. However proof that a simple structure can be beneath the most complex is highly interesting.

What this tells us though is that repeating the same concept, here 'jealousy', can still lead to irony and drama. A deep analysis of this concept could awaken us to a sophisticated understanding of how irony comes into being as well as tragic drama.

Key to Othello and indeed most of Shakespeare is the variation and flow of information among characters. Indeed in a world where people only told the truth there would be no room for the bard's plays. Thus we see another point, that whilst evil encompasses the world, without it we would not be as poignant or ironic as a species and civilisation.

What is key to understanding Shakespeare is that he did not use exactly the same underlying method to plan the plays but rather evolved it. Thus we wonder what is the overarching and final statement. In this he gives a clue, his play *The Tempest*, which ends with the magician (Shakespeare) asking the audience to set him free with their applause (in other words in understanding his work one is able to unleash literary potential to a new level).

The *tempest* does not immediately fall into the above rubrics however the notion of the number three is weaved as a thread between the lines in this play. Noting Shakespeare's charming way of wishing to explain his method to posterity without giving away it to competitors we believe that this allows us to organise the character's relationships in triads.

	Prospero		Sycorax
	I	I	I
	Miranda	Ariel	Caliban
	I		
	Ferdinand		
	I		
	Alonso		
	I	I	
	Sebastian	Antonio	

What we see here is three triads of relations giving a very simple structure around a simple triangle that joins with others. These complicated links lead the playwright or author to create the complex plots and wonderfully rich drama and power of Shakespeare. Three mirrored relations of three characters all linked together like an organic molecule.

In a sense we can see that the writer could use these kind of concepts to develop better plays that somehow have a perfection to them, this being due to the relations built into the characters. Instead of aimlessly copying the plot of the bard, new writers can build on his structures and use the imagination and wit to unfold narratives of charm and glitter using these kind of structures or experiment with other structures of similar geometry and symmetry. Thus we see a mathematics of irony developing as a concerted debate and body of work.