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## Rediscovering the Standard Two-Valued Logic of the Heart and Mind in Victorian and Postmodern Literature via Poincaré`s Chaos Theory and Kelly`s Personal Construct Theory SUMMARY

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The dissertation thesis *Rediscovering the Standard Two-Valued Logic of the Heart and Mind in Victorian and Postmodern Literature via Poincaré`s Chaos Theory and Kelly`s Personal Construct Theory* represents a highly original approach to Victorian and Postmodern literature from a sociological and a mathematical perspective. The mathematical Chaos Theory elaborated by Henri Poincaré has successfully been turned to good account to explicate the varied reflections of certain social selves in the Victorian and Postmodern literature.

Tess of the D'Urbervilles, Thomas Hardy's Victorian masterpiece, depicts Tess Durbeyfield's emotional and logical selves within a patriarchal society, profoundly marked by superstitions, hypocrisy, vanity and social inequality. Our basic concern has been to depict the genuine way in which Thomas Hardy brings up religion, a recurrent motif in the narrative, which intermingles with the social status of peasants, in opposition with the vantages of ladies and gentlemen, who benefit from a higher position in the social hierarchy.

Since our methodological grid is grounded in George Kelly's Theory of Personal Constructs, his corollaries have represented functional sociological and psychological channels for decoding the characters' personalities. The beginning of the masterpiece has brought into focus the starting point of Tess' ensuing dramatic destiny and the experience corollary has been a functional interpretative device for the construal of her father's nouveau riche attitude. The protagonist's father, the parvenu knight has taken position of his unprecedented social status and the 'commonality corollary' has represented the suitable methodological lens meant to enhance the construal of his authoritarian behavior.

To better demonstrate the sociological implications of the social class structure, the hostile attitude of the young gentlemen towards the peasants present at Cerealia has been depicted and commented upon, with a view to showing how it will influence what will happen. Furthermore, the irony in the narrator's remark regarding some of the characters' newly acquired social status and Angel's disregard of the protagonist has been successfully construed via George Kelly's 'construction corollary.' 'Experience corollary' has represented the functional interpretative device for the comprehension of the pretentions put forward by the Durbeyfields, who represent the parvenus in the masterpiece. Furthermore, the approach has benefited from Kelly's theory revealing the fact that the ingrown principles of the Victorian society regarding marriages were predicated by the social hierarchy. The

Durbeyfields' expectations, regarding Tess` marriage have been successfully depicted via the 'construct corollary'.

Tess, the protagonist of the masterpiece, has been defined as a culpable person due to the sociological implication of the concept of 'guilt,' which defines a person who considers himself or herself worth of punishment. 'Guilt' has proven to represent the cause of the protagonist's ensuing struggles and her desolated destiny. 'Choice corollary' has been successfully employed for the construal of Tess' decision to visit their hypothetical relatives to claim the recognition of the lineage.

The meaningless relationship between Tess Durbeyfield and Alec D`Urberville has been analyzed via the 'sociality corollary' and has surfaced Alec's ineffectiveness to understand the protagonist's construal processes. Furthermore, their relationship has been employed as an illustration of wealthy gentlemen's 'hostility' exerted upon underprivileged young girls. This issue has been reinforced by the inducement of a disregarding opinion regarding peasant young girls. The 'hostility' imprinted by the male protagonist upon Tess has been revealed via the young girl's obeisant attitude derived from the sense of liability for Alec's providing for her family.

The dichotomous structures 'religion versus sin' and 'faith versus lust' have been identified in *Tess of the D`Urbervilles*, representing descriptive instruments for the relationship between Tess and the two male protagonists: Alec and Angel. Furthermore, Tess, the maternal figure, in the crucible moments, has resorted to religion and the juxtaposition 'religion versus sin' has been brought into bold relief. Although the mother resorted to baptism in order to rescue her infant, the child's death has been brought into focus via the dichotomous structure 'religion versus sin,' enhancing the correlation of his origins and death. The fragmentation corollary has represented the functional interpretative device meant to enhance the readers' comprehension of Tess' choice to murder her former lover, Alec, in order to restore order in her life.

Another motif, similar to the motifs depicted in Tracy Chevalier's postmodern masterpieces entitled *The Virgin Blue* and *Girl with a Pearl Earring*, has been represented by the colour blue. Similar to the two postmodern narratives, the colour blue has appeared in

correlation with pain and sin. To conclude, the female protagonist of the Victorian narrative is at the red end of the scale, charged with carnal connotations, in her attempt to "create an imperfect evaluative image" of their "compelling inward vision" (in the words of Gilder,2003: 217).

Garnett P. Williams' utterance: "Chaos emphasizes the basic impossibility of making accurate long-term predictions. In some cases, it also shows how such a situation comes about" (Williams,1999: 23) has represented the leading point into the employment of Chaos Theory as a methodological lens meant to enhance the readers' comprehension of Thomas Hardy Victorian masterpiece entitled *Tess of the D'Urbervilles*.

Henri Poincaré's mathematical Chaos Theory has represented a functional interpretative device for the Victorian masterpiece which depicts Tess Durbeyfield's struggles with social principles and wealthy gentlemen's hostile attitude toward a lower social class. The approach has benefited from Poincaré's concepts revealing the fact that varied reflections of certain social selves can be analyzed via Chaos Theory.

The readers' comprehension has been enhanced via the mathematical elements of the theory: 'autocorrelation,' which implies the fact that: "a time series sometimes repeats patterns or has other properties whereby earlier values have some relation to later values" (Williams,1999: 16), 'iteration,' which represents the process of continuously reabsorbing what has already happened, 'bifurcation,' and 'standardization,' which may be defined as: "a transformation that converts data of whatever units to a common or standard scale" (Williams,1999: 115).

'Autocorrelation' has been a practical way of decoding the meaning ever since the commencement of the narrative when the narrator focused on the connection of earlier values, namely the D'Urbervilles, with later values, in other words, the protagonist's family, the Durbeyfield. 'Autocorrelation' has derived from two references; primarily, it has emerged from the relation between an earlier value, namely William the Conqueror, and a later one, that being the renowned knight, Sir Pagan D'Urberville. The second reference has been the liaison between the earlier value, D'Urbervilles family, and the later value, Jack Durbeyfiled.

The prime intersection between Angel and Tess has been interpreted as a non-chaotic strange attractor, fixed point which, unfortunately for Tess and Angel, has stagnated as time

passes. The reason why this attractor was slack might have been the unpropitious choice of the partner performed by Angel.

'Standardization' has represented a functional methodological lens for enhancing the construal of impoverished families who aspire to marry their daughters to a prosperous gentleman in order to change their destiny and the destiny of the family. The Durbeyfields take advantage of the hypothetical liaison with the D'Urbervilles, a family well-positioned in the hierarchy of social classes.

The twisting point in Tess` life, and the moment which made her decide to travel to Trantridge had been reasoned out in terms of the loss of the family horse. The 'butterfly effect', which implies that even the flip of a butterfly's wing could produce a hurricane has been represented by the death of Prince, the Durbeyfields` horse. Moreover, this point in Tess's life has allowed for a rich reading of the text in terms of 'bifurcation.' 'Standardization' has grounded functionality in the narration in the episode that explained the effects that the loss of the family horse could produce under different circumstances. Thus, this loss would represent only an inconvenience for a family with good incomes, whereas for a family who depended on the horse for gaining money, this loss represented chaos.

'The butterfly effect,' formerly inserted and explained in the thesis, has ended its cycle, the moment when a "hurricane" has been produced. The hurricane has been grounded in the chaotic event in Tess's life. Tess's illegitimate child sickens. It was then when Tess realized that her dying child should be baptized. She reckoned that an illegitimate child, who did not receive Christianizing, is sinful. The end of the narration has embodied 'autocorrelation'; the core values alluded to are Alec D'Urberville and Tess' love for Angel. Tess's action of murdering Alec has found its reasoning in her love for Angel.

To conclude, our approach to Hardy's novel via "chaos theory," in terms of iteration, autocorrelation, standardization, recursion, employed as valuable methodological lens, has proved to be highly innovative, reinforcing the core values of socially good literature, due to the fact that the chosen interpretative devices have favored and surfaced the "intuitively-felt larger, moral grounds" (Gilder, 2003: 97), compared to other interdisciplinary grids.

George Kelly's Personal Construct Theory has represented a functional interpretative device for depicting the characters' struggle against the rules dictated by the Victorian society. Religion, arrangement marriages, or sin have represented recurrent motifs in the masterpiece.

Furthermore, George Kelly's Theory of Personal Constructs has been employed for the analysis of the postmodern metafiction and the gender issues tackled in John Fowles' narrative. From the very debut of the narrative, the young couple, Charles and Ernestina, has been brought to the readers' attention. The innovative writer hinted at a telescope view in order to portray the couple. The 'construction corollary' has represented the suitable methodological lens to enhance the readers' comprehension of the protagonists' portrayal.

The fashion revolution, responsible for Ernestina's fashionable style, has successfully been interpreted via the 'fragmentation corollary,' since the young lady construed behavior in connection to her current construct system, not to previous behavior. The two feminine characters, Sarah and Ernestina, have been brought into focus antithetically. George Kelly's 'individuality corollary' has represented the interpretative grid for depicting the antithesis. From the social perspective, the colours portraying the two young women have come as a clue for comprehending both their background and their present situation, Ernestina's utopian existence interfering with dystopia, which characterizes Sarah Woodruff's existence.

Sarah Woodruff, the woman suggestively denominated *Tragedy*, has arisen a series of presuppositions regarding her past. The 'construction corollary' has represented the functional interpretative device meant to enhance our comprehension regarding the people's expectations in terms of Sarah's supposed madness. The 'experience corollary' has been employed for the analysis of Sarah's impact upon Charles since Sarah's physical appearance, imprints the sense of guilt on Charles.

George Kelly's 'sociality corollary' has functioned as an interpretative device for the prophecy of the liaison between Charles and Sarah. Consequently, the young gentleman aborted to comprehend the standard belief regarding Sarah's insanity. The experience has hit Charles' fancy and his subsequent conceit has provided functionality for the 'experience corollary,' as a methodological lens meant to enhance the readers' comprehension of his subsequent insights regarding Sarah Woodruff.

The dichotomous structure 'religion versus sin' has first appeared in the episode where Charles played the leading role in a sinful scene of lust. The flamboyant antithesis has derived from his immediate departure for Church. Being related to religion, the Kellian 'construction corollary' has represented a functional interpretative device meant to enhance the readers'

comprehension of Mrs. Poulteney's conceit regarding her place in Heaven due to her good-doing.

Ernestina, Aunt Tranter's niece, is delineated as the result of her parents' over protectiveness. Ernestina's slight desire encountered immediate accomplishment, and the family's incapacity to accomplish the young lady's wishes has degenerated into the sensation of guilt. The parents' self-indictment has successfully been analyzed in terms of the sociological approach to the phenomenon entitled 'guilt.' The 'commonality corollary' has represented the interpretative device meant to enhance our comprehension regarding Ernestina's recurrent visits to Lyme.

The pudicity specific to the Victorian era has provided another instancing of the antithesis 'religion versus sin,' via Ernestina's intimate moments in her room, where she sensed herself as a 'dancer' or 'an actress,' simultaneously revealing the Victorian conception regarding women with careers in dancing or acting. Ernestina's ignorance and naivety regarding the intimacy between a man and a woman has been analyzed via George Kelly's 'construction corollary.' The young lady's peccancy in thoughts, her contemplations, and the expectations construed by her has become available via her experience regarding Charles.

The construal of the Victorian society has come into focus via George Kelly's 'fragmentation corollary.' The narrator has remarked the Victorians' comprehension of sexual activities as being sinful. The aforementioned reference corresponds to the majority of Victorian people.

Sarah Woodruff, the vicar's suggestion as a governess, represents the opposite of Ernestina. Mrs. Poulteney's inquiry regarding Sarah's history reveals the prejudices created about the protagonist. The suppositions have been analyzed via George Kelly's 'experience corollary,' instancing another standardization regarding the connection between education and the adversity in the protagonist's life.

Sarah Woodruff's endurance has provided an instance for the construction of a stereotypical opinion about her. However, the vicar's concrete explanation has stood as proof of the misjudgments regarding the protagonist. The 'experience corollary' has been employed as a functional interpretative device meant to enhance the readers' comprehension regarding the vicar's utterance. Furthermore, the explanation has revealed Sarah's state of remorsefulness, guilt representing the factor that has influenced her mental condition. The

dichotomous structure 'religion versus sin' has reappeared during Sarah's interview, as an antagonism between the protagonist's history and her task to read a passage from the Bible.

The correlation between John Fowles's *The French Lieutenant's Woman* and Thomas's Hardy's *Tess of the D'Urbervilles* resides in the urge of the protagonists' fathers to encounter ancestry in higher social circles. The father's desire to belong to the royal caste has brought into focus Kelly's 'organization corollary' for properly depicting it. The superiority imprinted upon Sarah has reasoned the protagonist to become submissive, bringing into focus the 'hostility' exerted by Mrs. Poulteney. The motif 'saint versus sinner' has been reiterated in Mrs. Poulteney and Sarah's conversation regarding the people's perception of the latter.

The bifurcation in Charles` life has lead him toward the protagonist of the narrative, Sarah Woodruff. 'Choice corollary' represents the functional methodological lens meant to enhance the readers` comprehension regarding the gentleman`s further action, consisting in his desire to observe the woman. The persual of the instinct would have provided a different fate for Sarah and Charles. The 'choice corollary,' however, proved its functionality via Charles` approach. The 'experience corollary' has become functional for the construal of Charles` analogy between the woman who was lying asleep and his sexual experience in France. The female protagonist has been associated with Charles` sinful past. Furthermore, the remark regarding the French girl`s name has illustrated the lack of importance of women associated with lust.

A closer inspection of the girl reveals the colour of her hair, commented upon via the concept of 'autocorrelation'. The auburn of the protagonist's hair represents a correlation with Tracy Chevalier's characters, namely Isabelle du Moulin and Ella Turner, providing an instance for the implicit connection between the colour of the hair and sin.

For Ernestina, Charles` fiancée, the image of Charles in the company of other women represents an outrageous occurrence. The 'construction corollary' has represented the functional methodological lens meant to facilitate the construal of Ernestina's concern. Furthermore, her awareness regarding the fiancé's extensive experience enriched the lady's unease, bringing into focus the 'experience corollary' as a functional interpretative device.

The social status of Charles and Ernestina tenders the opportunity for the gentleman and the young lady to become acquaintances. The standard custom in the Victorian society regarding the arranged marriages occurs on numerous occasions in Charles` situation, bringing

into focus the functionality of George Kelly's 'commonality corollary.' Ernestina and Charles' visit to Mrs. Poulteney's house illustrates another instance of the differences regarding the social status hierarchy, bringing into focus the 'fragmentation corollary' as a functional interpretative device.

The protagonist's detailed confession has revealed her position as a sinner in her history with the French Lieutenant, providing another dichotomous structure, 'sinner versus saint,' in correlation with the issue of belonging to a certain social class. The final stage of her confession highlights Sarah asking forgiveness from Charles for her previous sin. The gentleman's explanation regarding her necessity to forgive herself has reinforced the sociological implications of the sensation of 'guilt'.

Kelly's first presupposition: "man might be better understood if he were viewed in the perspective of the centuries rather than in the flicker of passing moments" (Kelly,1963: 3) has enhanced our comprehension regarding the historical ground of the narrative, whereas the second judgment: "each man contemplates in his own personal way the stream of events upon which he himself so swiftly borne" (3) has accounted for a functional leading point for the analysis of Fowles' characters from a sociological perspective.

Thus, we have started our approach to Fowles' novel from Mead and Buber's assumption that empirically and anthropologically speaking, we are a "socius." It implies the fact that "the self is a human individual, who, in an ego-alter dialectic, in a dialogical meeting with the other, comes to know himself as a self... His or her very unique reality, is, paradoxically, discovered and developed in and through community... this between thus becomes the basis of unique and precious selves and the bond of social cohesion... Further the capacity for speech seems to be the basis of man's selfhood... We are literally talked into selfhood" (qtd in Gilder, 2003: 49).

This assumption has been valuable for us because it has highlighted the facets of the characters' social selves that have been analyzed in John Fowles' masterpiece *The French Lieutenant's Woman*. It has also hinted at Folwes' "lateral" thinking that, in DeBono's terms, means to explore "new holes in new and different places, getting away from familiar patterns and reforming new patterns" (Monaghan, qtd in Gilder,2003: 49). Fowles' "lateral" thinking has been explored via Poincaré's Chaos Theory, based on 'standardization,' 'autocorrelation,' 'iteration,' and 'recursion.' We have regarded them as

Poincare's "arguments" characterized by at least one generic characteristic, namely "an inferential leap from existing beliefs to the adoption of a new belief or reinforcement of an old one" (Brockriede, qtd in Gilder,2003: 50). This characteristic is, to a certain extent, similar to the significant postmodern feature of departing from "familiar patterns and reforming new patterns," assumed and explored by Fowles in *The French Lieutenant Woman*.

The numerous examples of 'iteration,' 'standardization,' 'autocorrelation,' 'recursion,' and 'bifurcation' stand as clear evidence that a mathematical theory may be utilized as an interpretation key for literary masterpieces. As a twofold "intuitive perceiver" and "logical observer" of Fowles' characters, I strongly hold that the interdisciplinary approach built on Poincare's theory can prove that remarkable achievements are those in which the author's intention is never fully revealed in a direct way, demanding to be re-read or revisited, and never to exclude from our interest sympathy, affection and a certain degree of impartiality.

Tracy Chevalier's masterpiece entitled *Girl with a Pearl Earring*, the historical novel portraying the unfolding of young maid's life, expands upon women's social status in the seventeenth century. 'Sexuality versus restraint,' the anthological theme tackled in the narrative stands as mere evidence of the sociological interceptions in the masterpiece.

The author of the novel depicts women's lack of possession of their bodies in the period mentioned above, since the scale of appurtenance establishes the parents, the masters, and subsequently, the husbands in the lead. The manifold antitheses in the narrative, case in point: 'sexuality versus restraint,' 'hostility versus aggressiveness,' have represented entry points to decoding the characters' degree of awareness, more precisely the female characters' degree of awareness. 'Hostility' represents the imposition of behavior patterns validated as not bringing about useful results, whereas 'aggressiveness' is utilized as a strategy of imposing patterns that have been validated as useful, bringing about significant positive changes in people's lives.

George Kelly's corollaries have represented suitable methodological devices for approaching postmodern literature. 'Construction corollary,' which implies that people create expectations based on their experience, has enhanced the readers' comprehension of the female protagonist, Griet. Kelly's 'construction corollary' provides an axis for understanding the conversation between Griet and her family concerning her future masters when the protagonist creates expectations about the masters' religion based on her experience and

knowledge of the area where they live. 'Fragmentation corollary,' based on the assumption that people should construe behavior in connection to their current construct system, not to the previous behavior, has proven to be a good entry point to increase the readers' awareness regarding the fact that Griet's mother does not provide her the opportunity to anticipate the event, thus the protagonist does not possess the ability to construe behavior based on previous behavior.

The 'experience corollary,' based on the assumption that people enrich their experience while interpreting their previous events, has enhanced the readers' comprehension of the successive interpretations offered by the characters concerning their life events. The quaint person in the narrative is Agnes, the protagonist's sister, who does not comprehend her sister's necessity to leave the house: "I'll be all alone. You're leaving me all alone. First Frans, then you" (GPE, 10). The younger sister's map of reality strains the limits and her lack of ability to adapt and expand it results in the younger sister's incapacity to construe the situation bringing into focus the 'modulation corollary' as a functional interpretative device.

The 'sociality corollary,' based on the assumption that meaningful relationships could be established only by understanding another person's construal process, has been meant to explain the protagonist's interception of her relationship with Cornelia. The protagonist's speculation regarding Tanneke has been depicted via Kelly's 'commonality corollary,' according to which similar constructions of an event lead to similar actions. Tanneke, the older maid, demonstrates assuredness in her announcement regarding her experience as a maid. The difference in mentality between the two maids reaches validity via the 'organization corollary,' based on the assumption that people tend to prioritize the characteristics for their personalities that will change and evolve with experience.

'Choice corollary,' which according to George Kelly: "lays down the grounds upon which we can make some predictions regarding how people will act after they have construed the issues with which they are faced" (Kelly,1963: 67) has represented a reasonable interpretative grid meant to enhance the readers' comprehension of the characters' decisions and actions. Additionally, 'anxiety,' which represents "the term used to explain all kinds of different behavior" (Kelly,1963: 29), 'guilt,' 'aggressiveness,' and 'hostility' represent appropriate methodological lens which enhance the readers' comprehension of the female protagonist's degree of personal awareness. Griet, the young maid who is the female

protagonist of the masterpiece entitled Girl with a Pearl Earring makes use of her sensibility and her femininity as barriers against the male egoism.

The international bestseller entitled *Girl with a Pearl Earring* provides the depiction of a young maid's struggles in a society where women are considered inferior to men. The male protagonists` hostile approach dominates the female characters` degree of personal awareness. Tracy Chevalier's narrative represents a suitable postmodern literary piece that can be analyzed via Henri Poincaré's Chaos Theory. One benefit of analyzing chaos, according to Garnett P. Williams, is represented by the possibility to "avoid chaos, guide a system out of it, design a product or system to lead into or against it, stabilize or control it, encourage or enhance it, or even exploit it" (Williams,1999: 24). Consequently, chaos may be avoided by studying the conditions when it appears or, on the contrary, chaos can be leveraged. As defined in Macmillan Dictionary, Chaos represents: "a situation in which everything is confused" (<a href="https://www.macmillandictionary.com/dictionary/british/chaos">https://www.macmillandictionary.com/dictionary/british/chaos</a>); however, there is a hidden order in a chaotic system.

'Recursion,' representing the existing replica of an occasion or an act and the existence of "patterns within given object, subject or system" (Slethaug,2000: 98), has emblematized a suitable methodological grid for the analysis of Tracy Chevalier's masterpiece. The religious motif represents a replica encountered in Tracy Chevalier's masterpiece *The Virgin Blue*. Additionally, the 'recursion' grounds in the two protagonists' perception of the Virgin. 'Iteration,' which continuously reabsorbs what has already happened, has represented another interpretation grid for the postmodern narrative. Griet, the female protagonist of the narrative resorts to previous events in elusive episodes in her new employment. The young maid reabsorbs the events in her family's company as she departs to the new masters' household, the games played with her brother and sister while she attends to the masters' children, or her father's smell when she visits the studio for the first time.

Consequently, the protagonist reabsorbs the familiar episodes in correlation to her new statute. The differences between iterations appear due to the lack of previous information or to the addition of new information. Iteration is considered to be a basic scientific fact and also a leading point of chaos theory.

'Autocorrelation,' which implies the fact that: "a time series sometimes repeats patterns or has other properties whereby earlier values have some relations to later values"

(Williams,1999: 86) has embodied another suitable methodological lens meant to enhance the readers' comprehension of certain events. 'Autocorrelation' has represented the interpretative grid meant to depict the protagonist's view apropos of maids. In the protagonist's opinion, a correlation between a person's physique and the time of labour is pellucid, illustrating an instance of 'autocorrelation.'

'Standardization,' which represents: "a transformation that converts data of whatever units into a common or standard scale" (Williams,1999: 115) is a pregnant phenomenon in the narrative. The masterpiece has provided instances of standardized ideology apropos of religion, the young maids 'social status as well as the standard archetype regarding the maids' questionable character.

A 'bifurcation' is "a sudden qualitative change in a system's behavior, occurring at a fixed (critical) value of a control parameter. The change can be subtle (small change in the system's behavior) or catastrophic (large change in behavior)" (Williams,1999: 146). The bifurcation in the protagonist's life has occured in a critical moment, represented by her father's loss of employment. The 'bifurcation' in Griet's life has expressed the catastrophic change intermingling with the moment her mother adjudicates her employment as a maidservant.

In literature, writers tend to use complex paths, movement and play instead of using only one pattern strictly. As far as the choice of a pattern is concerned, it may be completely random or, on the contrary, it may be determined. Tracy Chevalier's masterpiece has provided numerous instances of 'iteration,' 'recursion,' 'standardization,' and 'autocorrelation,' facilitating the use of a mathematical theory as a suitable interpretative grid for a postmodern literary masterpiece.

Furthermore, Tracy Chevalier's masterpiece, *The Virgin Blue*, portrays the stories of Ella and Isabelle in two parallel narratives. Our basic concern has been to depict the genuine way the well-informed author brings up the historical background of Isabelle du Moulin, the protagonist of the first narrative. Ella Turner, the protagonist of the parallel narrative, is the American girl who, due to her relocation to France, engages in recognition of her French ancestors. The Epilogue highlights Ella's decision to write about her ancestors.

The Virgin Blue exhibits the characteristics of postmodern literature. Temporal distortion, the switch between one timeline to another, and the substitution of the first-person

narrator with the omniscient third-person narrator represent distinguished features of postmodernism and have been identified and slightly commented upon in our text analysis. Furthermore, the narrative is characterized by faction, which represents the merging of historical events with the fictional occurrence, for instance, the Protestant Reformation. The themes tackled in the narrative are religion and the women's social status, and their position in society.

Since our methodological grid is grounded in George Kelly's sociological theory of personal constructs, his eleven corollaries have represented functional psychological and sociological channels for decoding the characters' personalities. According to Kelly: "man might be better understood if he were viewed in the perspective of the centuries rather than in the flicker of passing moments" (Kelly,1963: 3). The approach has revealed that the readers can construe Isabelle's personality via her depiction in the narrative and via Ella's investigation of her ancestors. Moreover, George Kelly utters that: "each man contemplates in his own personal way the stream of events upon which he finds himself so swiftly borne" (3). The corollaries have enhanced the readers' comprehension of both Isabelle's and Ella's personalities as well as their construal process of events.

We have employed George Kelly's Personal Constructs as a functional methodological lens for approaching postmodern masterpieces. 'Hostility,' utilized to impose behavior patterns that have been validated as not bringing about useful results, has been commented upon in relation to Isabelle, the female character from 1572, representing the image of feminine suppression exerted by male egoism. Etienne, Isabelle's husband, exerts the hostile reactions in order to restore the family's image in the villagers' eyes.

The dichotomous construct 'religion versus sin' has been tackled in our analysis and the way the family resorts to praying to activate the magical powers of the hearth has also been commented upon. Furthermore, Isabelle's red hair, which is associated with the Virgin's hair colour has been debated upon in terms of how Etienne and his family came to accuse her and her daughter, Marie, of witchery: "Did you hear him, La Rousse? You're dirty! He shouted" (VB, 2).

'Aggressiveness,' utilized as a strategy of imposing patterns that have been validated as useful, has been analyzed to show how it brought about significant positive changes in the characters' lives. The employment of prayers has been tackled in relation to Isabelle, who,

despite the hostile influence of the Tourniers regarding the Catholic beliefs, continues to pray to the Virgin and to saints.

To save the discourse from the evils of postmodernism, Chevalier resorted to a new creed based on the religious motif of the Virgin. The blue colour is significant in the two protagonists` lives. Isabelle worships the blue of the Virgin, whereas Ella's nightmares after her attempts to conceive a baby reveal the blue, which will function as a liaison between Ella and her ancestors, more precisely between Ella and Isabelle. George Kelly's corollaries represent suitable entry points to decoding the characters` personalities and enhancing the degree of awareness of Tracy Chevalier's characters. To conclude, the female protagonists of the postmodern narrative are at the blue end of the scale, charged with spiritual connotations, in their attempt to "create an imperfect evaluative image" of their "compelling inward vision" (in the words of Gilder, 2003: 217).

Garnett P. Williams utterance: "Chaos emphasizes the basic impossibility of making accurate long-term predictions. In some cases, it also shows how such a situation comes about" (Williams, 1999: 23) represents the leading point into the usage of Chaos Theory as a methodological lens meant to enhance the readers' comprehension of Tracy Chevalier's masterpiece entitled *The Virgin Blue*. Moreover, according to Williams: "In doing so, chaos brings us a clearer perspective and understanding of the world as it really is" (Williams,1999: 23). Henri Poincaré's mathematical Chaos Theory has represented a functional interpretative grid for the postmodern novel written by Tracy Chevalier. The postmodern narrative portrays the lives of the two female protagonists Isabelle du Moulin and Ella Turner, into the two parallel narratives. Faction and temporal disorder represent the pregnant postmodern characteristics of the masterpiece. The parallel narrative, as well as the intermingling of the first person narrator with the omniscient third person narrator, renders the postmodern character of the novel.

The readers' comprehension has been enhanced via the mathematical elements of the theory: 'iteration,' 'autocorrelation,' 'standardization,' and 'bifurcation.' 'Autocorrelation' has been utilized from the commencement of the narrative when the narrator has brought into the readers' attention the correlation between Isabelle's hair colour and the Virgin. The numerous correlations between religion and sinful actions or the sinful encounters between Etienne and Isabelle, correlated with religion has rendered the importance of the historical events occurring

in that period, namely the Protestant Reformation. Additionally, 'autocorrelation' has been employed in order to put in antithesis the sin and the parental figures in Etienne's life. Furthermore, the 'autocorrelation' between physical contact, lust and sin reveal the protagonist's perception of love: "It was you who wanted the Sin" (VB, 18). The birth of Isabelle's three children and the correlation with the colors perceived at their birth has enhanced the readers' comprehension of the three children's personalities and their destinies. 'Autocorrelation' has additionally been employed in the parallel narrative depicting Ella Turner to enhance the readers' comprehension of her new life after her relocation to France.

Additionally, 'autocorrelation' has further been employed in the depicting of the liaisons between Ella and the Tourniers and for the connection between the two protagonists, Ella and Isabelle.

The 'butterfly effect' in the narrative has been represented by Isabelle's gesture of destroying the statue of the Virgin Mary from the church. The flip of the butterfly's wings, namely the demolition of the statue, causes the hurricane in the protagonist's life: the oppressions exerted by Etienne's family upon her due to the correlation between Isabelle and witchery, the constant prayers to the Virgin in difficult moments, followed by the sensation of guilt and her daughter's tragic destiny.

Chaos may occur in two different manners. It may happen at discrete periods of time, at separate intervals, like the eruptions of a volcano or at continuous intervals, for example: the trace of a pen on a slowly moving strip of paper" (Williams,1999: 20). In the two protagonists` lives, chaos occurs at continuous intervals, dull, until it reaches the apogee in the guise of the two protagonists` tragic discovery of Marie's grievous fate: "It was a piece of blue thread and it came from beneath the stone. She pulled and pulled until it broke off. She held it up to the candle for them to see" (VB, 264), leaving the colors of pain and mourning: "Then there was no more blue; all was red and black" (VB, 265). To conclude, the Victorian and Postmodern literary masterpieces have represented suitable literature for an interdisciplinary approach and interpretation via a mathematical and a sociological perspective.