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TURGENEV'S WOMEN REPRESENTATION AND THE 'WOMAN' QUESTION

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Abstract

During the 1830s and 1840s, Russian male intellectuals started out actively assisting women's claims for more equality. The subsequent generation, that of the 1850s and 1860s, turned into to be greater radical in its political views, especially after the failure and defeat of Russia within side the Crimean War (1856). Laws have been handed forbidding husbands to overcome or mutilate their wives, even though the dependency of spouse beating a few of the peasants turned into nevertheless sanctioned via way of means of standard law-a factor Bazarov remarks upon scathingly within side the novel. The rights of girls have been related to the emancipation of the serfs in a greater cloth feel than that of a not unusual place political ideal. In 1859, girls have been granted permission to wait college lectures with male students, however in 1861 this privilege turned into eliminated via way of means of authorities order. However, especially closer to the give up of the eighteenth century, Russian political lifestyles turned into characterized via way of means of intrigue and rivalries fermented. This fuelled conventional male prejudice towards the harmful have an effect on of female guile and treachery and provoked hostility to what turned into visible as its origin: the corrupting have an effect on of western lifestyle and political models upon the conventional values of Russian lifestyles. Out of these debates upon the woman's question, the present paper focuses on the Russian female characters with a gradual place-taking from a male-dominating literature to female-balancing plots with portraying 'woman' questions in reference to Turgenevian works.

Keywords: Turgenev's female characters, Women Representation, Russian Women Characters, the 'Woman' Question

INTRODUCTION

Catherine the Great (1762-96) marked the beginning of a slow process of improving the social position of women in Russia by removing some of the traditional discriminations against them in education, law, and the family. However, especially towards the end of the eighteenth century, Russian political life was characterized by intrigue and rivalries fermented in Catherine's court and in the fashionable salons presided over by powerful aristocratic women. This fuelled traditional male prejudice against the dangerous influence of feminine guile and treachery and provoked hostility to what was seen as its origin: the corrupting influence of western culture and political fashions upon the traditional values of Russian life.

Nevertheless, women's position continued to improve into the nineteenth century. During the 1830s and 1840s, Russian male intellectuals began actively supporting women's claims for greater equality. The future that of the 1850s and 1860s was to be more extremist in its political perspectives, particularly after the disappointment and rout of Russia in the Crimean War (1856). Regulations were passed restricting spouses to beat or disfigure their wives, albeit the propensity for wife beating among the workers was as yet endorsed by standard regulation a point Bazarov remarks upon brutally in the book. The rights of women were linked to the emancipation of the serfs in a more material sense than that of a common political ideal. Women were allowed to go to university lectures with men in 1859, but in 1861, the government ordered that they could no longer do so. Made up relationships became well known, by which hopeful young ladies who felt caught inside the commonplace familial home were safeguarded by young fellows who proposed to wed them so they could procure the fundamental records and consent to move to Moscow or St. Petersburg or to Zurich, Paris or Heidelberg to concentrate on the groundbreaking thoughts. Without a doubt, a portion of these young ladies were sold out, yet there is definitely not a lot of proof to recommend that Bazarov's sexual negativity was the common mentality among the male revolutionaries of the 1860s.

OBJECTIVE

The objective of this study is to evaluate, re-read, analyze and draw an interpretative conclusion and observations on how the female characters are portrayed, what lines does the story get in the hands of Turgenev in general and the justification of the themes of love, youth and pressure of time in particular in the



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Russian novels, specifically Turgenev's novels. the selected novels of Turgenev. The study includes Turgenev's chosen novels.

DISCUSSION

Russian readers are as familiar with the names and personalities of Turgenev's women as they are with the names and personalities of real-life female acquaintances. They are expounded on in Russian analysis - and somewhere else - as though they were depictions of genuine ladies.

The novel What Is To Be Done (1863) by Nikolai Chernyshevsky emerged from the discussion regarding the woman's question. Chernyshevsky was a main representative for the extreme educated people during the 1850s and 1860s and his novel became one of the most renowned and powerful in Russian writing. It was perused by Lenin, who pronounced it 'can fire one's energies for a lifetime' (cited in Andrews, Ladies in Russian Writing, 1988: 155), and he titled one of his own political works after it. Who is the protagonist of What Is To Be Done? is the champion, Vera Pavlovna, who splits from every customary job and biases about a lady's life and requirements. Her marriage is not the typical conclusion of the plot. All things being equal, she weds two times and lays out connections of comradeship and regard with her two spouses. All the more significantly, she seeks after a progression of dynamic vocations, setting up a model sewing co-employable that upholds her as well as permits her to free different ladies into an autonomous life. In the long run, Pavlovna trains as a specialist, tracking down a satisfying proficient life for herself. The book came to be known as 'the book of scriptures' for all Russian ladies with goals towards freedom, and it enlivened numerous ladies to leave their folks, spouses, even kids and move into the urban areas to join a circle, co-employable, or community of similar ladies. The more politically extremist of these young ladies became known as nigilistki (female skeptics). It is remarkable that, in the decades leading up to the Tzar's overthrow and the 1917 revolution, women in Russia were more numerous than women anywhere else in Europe and played a much larger and more significant role in the many subversive political movements.

In almost every way, Arina Vlassyevna, Bazarov's mother and "a real Russian noblewoman of earlier times" (145), is portrayed as Kukshina's opposite. She is addressed as oddly strict and suddenly close to home. Despite being married against her will, she has devoted herself to her husband's well-being and allowed him complete estate management, despite never having read a book. Past this she loves her child, tracking down her whole personality and satisfaction in this maternal job. The logical type of the storyteller's remark: 'Such women are now rare. God knows whether one ought to be happy of that reality!' (146) suggests that you're open-minded, but the way the text compares the new and old schools of women makes it clear where the text places its values

The depth and maturity of Turgenev's approach may be what initially catches the attention of the majority of readers. What is most hitting in the examination with English composition of a similar period is Turgenev's general opportunity recorded as a hard copy about the sexual connections between the characters, and their sexual sentiments, mentalities, and encounters. It is reviving to find a lady who is physically full grown, who has proactively been hitched, and who isn't guiltlessly energetic, believed intriguing to the point of being the courageous woman of the work. Turgenev is by all accounts worried to address his vitally female person as a fascinating character with regards to her own right.

Russian nineteenth-century authenticity seems ready to offer more valid ladies characters than the English practice. Turgenev has not gotten away from analysis regarding cliché portrayal. It has been argued that the women in his novels always fall into one of three recurring categories, with their physical beauty—or lack of it—being the most important factor and indicator. In very different ways, the first two polarized types are beautiful: there is the unadulterated youthful courageous woman simply rising up out of young ungainliness into bashful sexual mindfulness and the more established femme fatale who looks to draw in men by her adult sexuality however isn't herself enthusiastic, for sure is frequently icily unequipped for adoration. The third kind is the ugly or monstrous lady who is introduced as ludicrous; particularly would it be advisable for her she attempt to attempt to draw in men. The representation of each individual female can be the primary focus here. The degree to which Turgenev's depiction of women is "true" or authentic is an important underlying question. We've been conditioned in particular by feminist critics to the way women are frequently constructed as "other" to male norms. Rather than being seen as personalities by their own doing, ladies characters will quite often work as areas for male longings, fears, and nerves about the female. The portrayal of ladies in writing comprises generally of varieties upon the cliché pictures of virgin and prostitute, mischievous witch and kid like honest, Eve and Magdalene, spouse, mother and paramour. It was recommended that when you come to understand Fathers and Children you could get a kick out of the chance to consider how important this discernment is to Turgenev's treatment of female characters.

- ⇒ How would we assess Turgenev's ladies?
- \Rightarrow What are some of the positive outcomes of his imaginative construction of the experience and personality of a feminine being?
- ⇒ Have they been actually made, or are they just a prototype?

Women participate in scholarly discussions with men, and appear to respect nature from a realist and logical



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perspective, however have no inclination for it as a wellspring of life. At the same time, their minds are inquisitive and indifferent. They produce the amusing lined up between the youthful skeptic and the evident adversary. Turgenev was more creatively involved than he realized with female characters.

Notwithstanding ladies' situation and capability inside the construction of the plot, it is critical to consider comparable to the ladies characters the impact of the novelistic gadgets of centralization, 'appearing' and 'telling', which are vital to the manner in which an essayist shapes comprehension per user might interpret and reaction to characters. The space committed to ladies' own story inside the text is surely very short in examination with that distributed to the super male characters.

- ⇒ What is the equilibrium of centralization utilized for the male and female characters?
- \Rightarrow Is it true or not that we are offered similar knowledge into ladies' sentiments and insights as into those of men?
- ⇒ How does the switch between "showing" and "telling" relate to these characters?

The solution to these inquiries help per users cautiously examines the impact of these three novelistic gadgets. These are some of the novel's most vividly imagined and written pages. The storyteller 'tells a considerable amount about the two characters however there is an issue of the distinction in the nature of the 'telling'. The authoritative tone and manner in which the narrator speaks give the impression that she is providing us with a comprehensive understanding of her evasive mix of desires and timid conformism, which goes far beyond any self-awareness that the character might have. This legitimate information even appears to envelop ladies all in all, as though the way that they are ladies makes such summed up insights about their characters conceivable. Likewise with 'telling', 'appearing' as the characters' own discourse is conveyed sensibly equitably among female and male characters, yet again there is a distinction. Overall, the lady communicates puzzlement about her sentiments and goes to any male person for clarifications of her and of life, which, all around, he feels ready to supply. Notwithstanding the storyteller's inferred guarantee to full information on female characters, her driving forces and character stay to the peruse, something of a riddle. While use of 'appearing', 'telling' and centralization coordinates the peruses compassion and understanding towards the legend, the strange picture of a lady torment the text. It is critical that it is through the lady character that this opening is uncovered, not through the apparent progressive skeptic. It appears to be that since parts of female are left unexplained, the texture of authenticity is at absolutely no point ever totally quit for the day the future.

The force of the portrayal gets to a great extent from the utilization of illustration to heighten the language by which they are addressed. In this they might be said to bomb one of the prerequisites of the pragmatist kind: they are not altogether persuading or real developments of ladies as unambiguous individualized characters. All the more decidedly, it very well may be said that they produce where the message surpasses the constraints of its illustrative conceivable outcomes as authenticity. The "novelness" that has been regarded as the defining characteristic of the novel genre is frequently provided by images of women in texts written by men. The lady in the text frequently gives the second when we get a brief look at future prospects.

Madame Odintsova (*Fathers and Sons*, also known as *Fathers and Children*) - Obviously, a considerable lot of the parts of the portrayal of Odintsova adjust to the femme fatale type. A femme fatale, at times called an apex predator or vamp, is a stock person of a baffling, wonderful, and enchanting lady whose charms catch her darlings, frequently driving them into splitting the difference, lethal snares. She is a paradigm of writing and workmanship. In spite of the fact that she purposely decides to draw in Bazarov, requesting that Arkady carry him to visit her and when he comes endeavoring to incite his advantage and effectively reassuring him to uncover his feelings, she is demonstrated to be without unmistakable inclinations herself.

The image of her in bed, intrigued by Bazarov but quickly falling asleep over "a silly French novel...all clean and cool in clean and fragrant bed linen" (106) reinforces this impression of her lack of passion. When Bazarov tells her that she probably isn't capable of love, it implies that she seeks him out of curiosity and boredom rather than desire. Albeit the genuine reason for his passing is a typhus disease, practically self-caused, the text suggests that Odintsova has lethally obliterated the power of life in Bazarov. Having perused in this light we could start to detect something severely clean in the unbending Odintsova forces on her family, barring all hints of immediacy or imperativeness. There is positively a vile component in the manner she appears to be unexpectedly ready to turn her attractions upon Arkady after Bazarov has recommended that the previous is enamored with her.

It is possible to interpret the sense that women are unfulfilled in the current social arrangement, of an unnamed emptiness or desire at the center of feminine life, as implying a mysterious and unknown force for change or the pressure of the future. The impact Odintsova has on Bazarov appears to be the novel's primary focus. Her capability is to create the amusing lined up between the youthful skeptic and his obvious adversary, the heartfelt blue-blood Kirsanov. After Bazarov's death, one might believe that Turgenev tells Odintsova her own story, including her subsequent marriage and its potential outcomes. Be that as it may, this is clearly too careless to even consider considering a story! Then again, the way that he incorporates it could recommend that Turgenev was more included innovatively with Odintsova than he understood.

Katya and Fenichka (Fathers and Sons) - Katya, obviously, is addressed as new, youthful, and virginal. She is known to blush and cry as a sign of her spontaneous emotional response, just like this type of character in



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Turgenev's novels. She seems quiet and reserved, but she has intuitive wisdom and insight; Katya grasps Bazarov's inclination all along. Turgenev's relationship with this kind of lady with a day to day existence rather than death is considerably clearer in his portrayal of Fenichka with her child. There are a few vile associations among them and the personality of Odintsova.

It appears to be that there are components of whatever negative or unfortunate view of ladies in the text. Notwithstanding, Turgenev's portrayal of his female characters is both more intriguing and more perplexing than this infers. Unquestionably, viewing at the characters in *Fathers and Sons* overall we should be struck by the magnificence, secret and strength of the ladies and the shortcoming and disappointment of the men. Once more to exhibit the intricacy of the ladies characters we want to arrange the original in its verifiable setting, however this time as far as its commitment with an energetic discussion resulting in Russia at the time upon 'the lady question'.

In *Home of the Gentry*, Natal'ya Lasunskaya, also known as Natasha, is the seventeen-year-old daughter of Dar'ya Mikhailovna. She is intelligent, observant, and well-read, but she is also very secretive. Her mother does not discourage her from having intellectual conversations with Rudin because she believes that they "improve her mind." Natasha appreciates Rudin, who trusts to her his thoughts and "secretly gives her books", and before long falls head over heels for him. She likewise frequently urges him to apply his abilities and act. Natasha is many times considered the first of 'Turgenev house keepers' to highlight in Turgenev's fiction. Like another Turgenevan lady, she is again a lady with a reasonable and solid person.

The pretty and charming 19-year-old daughter of a widow, Maria Dmitrievna Kalitine, is Liza Kalitin (*Home of the Gentry*). Vladimir Nikolaevich Panshin, a 28-year-old ambitious man, notices her. Saturated with a sensation of obligation, with a feeling of dread toward culpable anybody, with graciousness and submission of heart, she cherished the entire world and nobody specifically; God alone she adored jubilantly, modestly, softly. Lavretsky was the primary individual to upset her quiet inward life. Liza was such, a total resistance or a supplement to the male piece of the book.

Irina Pavlovna Osinin (Smoke) - Irina is a lovely lady from a laid out honorable, however ruined, family; she is the lifelong companion and afterward life partner of an extremely youthful Litvinov; she suddenly severed her relations with Litvinov a decade prior to the primary story happens, tempted by the potential outcomes of high society; she meets Litvinov once more, presently as a wedded lady, in Baden. Unique is Irina; because Turgenev has perfected her character to the point where she is a fascinating and subtle destroying witch. The extraordinary victory of her creation is that she joins that careful harmony among great and abhorrent which makes great ladies appear to be lifeless close to her and terrible ladies unnatural. She is also, by her very nature, irresistible, and the situation she creates between Litvinov and herself makes her even more so to the imagination. In addition, she is shielded from all influences of evil that she does not intentionally employ by virtue of her beauty, wit, and scorn. Such a lady is as old and as interesting a sort as Helen of Troy. It is most prevalent among the great mistresses of princes, and Turgenev modeled Irina after a mistress of Alexander II. As always, Turgenev conveys these heartfelt nuances with the utmost care. He presents another person, Potugin: he, as well, is enamored with Irina, however he is surrendered to his enthusiasm staying unfulfilled; also, he chases after Irina and her better half any place they go, requesting nothing, and getting nothing. He is a picture of what Litvinov may himself one day become: Turgenev was aware that human passion has no reason or logic, no matter how much we praise it, and that it can be deeply humiliating. When we take away the legislative issues from this novel - and it is handily stripped away - what remains is another miserable and delicate romantic tale. Mixing up this as slight would be simple. The caprices of the human heart are dependably significant, and consistently worth returning to.

Tatiana (Tanya) Petrovna and Marianna (*Smoke*)- Tatyana is a shocking example of Turgenev's expertise in drawing a total person with about six strokes of the pen. The peruser appears to have known her personally for his entire life: her everyday life, her girlhood, her decency, and individual approaches to the littlest detail: Nevertheless, she only speaks two or three times. Wherein the abrupt privileged young lady Marianna with whom Litvinov becomes hopelessly enamored when he is coaching in the fantastic place of the longwinded liberal Sipyagin, is pretty much as guiltless as he, yet she is the new sort of little kid. She is a renegade who has trimmed her hair, and (intriguing when one recollects Turgenev's dated propensities) she has a place with the age who has likewise surrendered hand-kissing. Marianna is not a revolutionary; rather, she is a rebel who is eager to leave her class, serve others, and sacrifice herself.

The story's host, Madame Sipyagin (*Smoke*), is excellent, clever, and not ill-tempered. She is actually the more amicable of the two, but she is fundamentally cold and indifferent, and she could not stand the thought of anyone remaining indifferent to her. Ladies like Sipyagina energize and work upon unpracticed and energetic qualities; as far as they might be concerned, they like routine and serene life. Tease cost Sipyagina little; she was very much aware that there was no risk for herself and never could be. With what a cheerful grin she resigned into herself, into the cognizance of her unavailability, her invulnerable prudence, and with what benevolent haughtiness she submitted to the legitimate hug of her very much reproduced life partner. However, dramatic scenes are only introduced by Turgenev in the second volume. She is by all accounts an improvement of Madame Odintsova of Fathers and Children yet finished in corrosive.

Turgenev is an expert at bringing relationships that have been damaged politically to light. At the conclusion of



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the first section of the book, there is a wonderful scene in which Markelov begins to resemble a tragic figure. As a praiseworthy individual, foolish and unequipped for disdain or desire, not interested in foes, and not hoodwinked, Markelov doesn't extra his host. What's more, when Markelov is captured toward the finish of the book he is obstinate and doesn't atone. It is one of Turgenev's strengths that he is consistent with the essential person of individuals. Markelov is a serious warrior when he thinks about his double-crossing.

Turgenev is difficult to continue in current realities of the connivance: One of the shadow figures is well drawn, but there are too many hints and shadows. Turgenev inserts shrewd prophecy into the mouth of this walking disaster. Palkin safeguards Solomin to whom the scholarly progressives are presently cool: Russia needs tough, unpleasant, dull men of individuals.

Rudin's Natalya is idealistic and eager to take action. She is ready to take on Rudin's extreme thoughts and follow him. Yet, Rudin's refusal to wed frustrates her and she weds another. Marriage is also the ultimate goal for her. Liza in Home of the Upper class is a genuine strict leaning sort who falls head over heels for a wedded man and turns into a religious recluse in outcome. Odintsova is an interesting character in Fathers and Sons. Scholarly and instructed, she makes two favorable relationships without. love. She looks for tranquility and inner harmony. Pretty much, the Turgenevian female characters live inside the family circle.

CONCLUSION

The degree of social movement of ladies ascends as one goes from old times to current times. In antiquated times socially dynamic ladies was the special case as opposed to the standard. As the hundreds of year's progress, ladies start to consider social action, they start to act, and a bigger number of socially dynamic ladies show up. After the Insurgency, more ladies become socially dynamic. This is reflected in writing as well as ever. Today, the woman who does not participate in social activities is more of an exception than a rule. The tables have been totally turned.

Subsequently, one might identify a few phases of development of social action of ladies in Russian writing. In the principal stage-the oldest - lady shows up as a genuine spouse who is dedicated to her better half. She eggs him on to progress, favors him, herself not partaking in public activity. It is interesting to note that Russian literature contains a number of works at this stage in which women achieve recognition for their intelligence, resourcefulness, and even the affection of their loved ones; they have impact on his character and on society. In the second phase of the development of social movement of ladies, scholars and writers admire the model spouse. They perceive that a lady is likewise an individual, who, similar to all individuals has the option to cherish, to joy. Active interference in social life is a characteristic of the third stage. The expression of women's most active lives during the Great War and after it is the fourth and final stage. Ladies carried on their delicate shoulders the entire weight of war. They constructed the post-war life- - coordinated kolkhozes, ventures, worked in schools, directed logical work, guided planes, and flew into space. Just sure friendly action is remembered for this work.

Indeed, Turgenev's portrayal of female characters differs in form and content from his portrayal of male characters. While his legends are built as creating individual accounts, his ladies are portrayed as static pictures and in the principal, they capability figuratively or emblematically in the text. However, this does not necessarily imply a complete rejection of Turgenev's female protagonists. They frequently have a far greater impact on the imagination of the reader than the male characters do. In contrast to the "everydayness" of the male characters in Fathers and Sons, the female characters—Katya, Fenichka, and especially Odintsova—do serve to suggest a mysterious "otherness." For Turgenev, this ladylike newness might be said to recommend fears and wants that can't in any case effectively or whatsoever be enunciated inside the shows of authenticity, to the extent that such shows expect to stay consistent with the 'present time and place', material truth of life. In a period of extraordinary social change and vulnerability, similar to the 1860s in Russia, when requests were being made that would upset throughout the entire lifestyle; it isn't business as usual for find fictitious female characters working figuratively to recommend male debilitation and even demise. However, Turgenev's portrayal is brave and even more ambivalent than this.

Rudin, Lavretsky, Bazarov, and others are not heroes; rather, they are symbols of their surroundings and represent the Russian people's version of cultural life in Europe. The unique explicitness of the Russian novel lies in that, in contrast to the writing of different people groups, from its very beginning it laid out aggregate intellectual elite as the carrier of individuals' social life. The Russian intelligentsia's strength was already felt by Pushkin and Lermontov, but Turgenev, who was known as a lovets dush (soul-catcher), captured the nation's soul.

Turgenev was always writing "pictures" of characters that were also "readings" of history, pictures picked out in relief from the ground of history. Turgenev was much of the time charged, especially by the more youthful age of Russian revolutionaries, for supposedly introducing in his books a 'look' which didn't convey the importance of history, for neglecting to offer what they viewed as a devoted image of the moderate and subterraneous powers at work in Tsarist society. *On the Eve, Fathers and Sons*, and *Virgin Soil*'s hostile reception by young Russian radicalism represented a politico-historical rather than artistic challenge to the





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artist's vision.

Turgenev was forced to argue his case in terms of causation outside of the artistic process when the hostile critics challenged him by saying that there was a higher reality and a higher necessity than imaginative art. Turgenev's utilization of the citation from *Hamlet*, and his emphasis on the novel as a narrative, appear to address an acknowledgment of the force of fact that is undeniably less obscure than James' discernment and translation of the manner by which 'the novel is history.

Turgenev's emphasis on moral situations and character portrayals rather than plot or story; his "ironic" distance; his work's distinctive quality of "poetic" realism and, in turn, its abstaining from naturalism's excesses; his directness; the reliably noteworthy moral person of his champions; his touchy treatment of the topic of disappointment and his male characters; also, to James, the one imperfection on his lord's generally unblemished record, his negativity.

REFERENCES

- [1] Kumar, S., & Bansal, L. K. (2008). The impact of mergers and acquisitions on corporate performance in India. Management Decision, 46(10), 1531-1543.
- [2] Orwell, George. "Inside the Whale". All Art is Propaganda: Critical Essays". Complied by George Packer. First Mariner Books: NY, NY, 2009, pp. 135.
- [3] Wittgenstein, Ludwig. Tractatus Logico-Philosophicus. Dover Publications: Mineola, NY, 1999, pp. 4.1212
- [4] Wiittgenstein, Ludwig. Philosophical Investigations, translation from the German by G.E.M. Anscombe. Wiley-Blackwell, 4th edition, 2009, pp. 199.
- [5] Godfrey-Smith, Peter. Philosophy of Biology. Princeton University Press: Princeton, NJ, 2014, pp. 11.
- [6] Gray, Jim. "Jim Grey on eScience: A Transformed Scientific Method". The Fourth Paradigm. Ed. Tony Hey, Stewart Tansley, Kristin Tolle. Microsoft Research: Remond, Wash, 2009, pp. XX XXI.
- [7] Hunter, David. Essentials of Discrete Mathematics. Jones and Bartlett: Burlington, MA 2010.
- [8] Hanson, Norwood Russell. Patterns of Discovery. Cambridge University Press: Cambridge. Reissue edition, 2010, pp. 11.
- [9] Strohman, Richard C. "Epigenesis and Complexity, The Coming Kuhian revolution in biology". *Nature Biotechnology*. Vol. 15 (March 1997) p. 195.
- [10] Woese, Carl R. "A New Biology for a New Century". *Microbiology and Molecular Biology Reviews*. June, 2004, p. 175. DOI: 10.1128/MMBR.68.2.173-186.2004.
- [11] Gerstein, Mark B.; Bruce, Can; Rozowsky, Joel S.; et al. p. 671
- [12] Quine, W.V. Philosophy of Logic, 2ndEd. Harvard University Press: Cambridge, MA. (1986) p. 100.
- [13] Orwell, George. "Inside the Whale". *All Art is Propaganda: Critical Essays"*. Compiled by George Packer. First Mariner Books: NY, NY (2009) at p. 135.