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A Study of the Man-Machine Interface in Richard Powers'
Galatea2.2

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Abstract:

In the present era, the notion of humanness and agency is being constantly problematized by the enmeshment of man and machine. Philosophical movements like posthumanism enable us to analyse the socio-political and cultural status of humans in a world that is enveloped by new technological innovation. This paper through the lens of literature makes an attempt to throw light on this problematic status of human by foregrounding the man-machine interface between Richard and the intelligent artificial machine Helen that is created by the neuroscientist Lentz in order to win a bet. Lentz requests Richard to train the artificial machine Helen to pass a literary test but in the process of training the machine, Richard realizes that to an extent his life is being gradually affected by Helen. The relationship of Richard and the artificial intelligent machine Helen enables us to rethink about the notion language and agency with renewed attention in a posthuman world.

Keyword: posthumanism, agency, language, humanness

Introduction

This is the irony of the time, our vision of a disembodied world is entangled with our embodied existence. Postmodern literary critics and philosophers like N. Katherine Hayles and Jean-Francois Lyotardenquire, can thought go on without a body. Posthumanism is a philosophical movement, which helps us to revisit our embodied existence and rethink about the importance of matter in the construction of our thought processes. It raises a few seminal questions on the existential issues of man and his future possibilities, posthumanism ponders over the possible consequences of a post-human world where today's human will be effaced from the earth by artificial intelligence. It sensitizes us of the fact that we are standing on the threshold, we are not sure what is beyond but are in constant negotiation with our embodied present and disembodied future. Although Homi Bhabha has talked about the "border lives" in the context of postcolonialism in his book *The Location of Culture*(1994) but I think his ideas can be amply applied in the context of technocratic era (1). He says that, "the beyond is neither a new horizon, nor a leaving behind the past...Beginning and endings may be the sustaining myths of the middle years; but in the *fin de siècle*, we find ourselves in the moment of transit where space and time cross to produce complex figures of difference and identity, past and present, inside and outside, inclusion and exclusion (1-2)." This negotiation is not limited within humans but is extended to both organic and technological non-humans and has made us to rethink about the notion of language and agency which crowned man as the superior being on earth. We have to revise our understanding of the humans and technological non-humans which are categorized under the simple binary of self and other,

language and matter, subject and object. We have to come out of the dominant Western narratives of identity and politics and embrace the concept of "inappropriate/d other" (Haraway, 300). "Inappropriate/d other does not mean, not to be in relation with-i.e, to be in a special reservation...rather to be inappropriate/d other means to be in critical deconstructive relationality, in a diffracting rather than reflecting (ratio)nality as the means of making potent connection that exceeds domination (Haraway, 300)".

Diffractive Reading of the World of Man and Machine

Drawing on the ideas of "inappropriate/d other" and critical deconstructive relationality this article attempts a diffractive reading of Richard Powers *Galatea 2.2* published in the year 1995 (Haraway 300). The diffractive reading of the novel is buttressed by the ideas of posthumanist performativity and agential realism discussed by Rosi Braidotti in the book *New Materialism: Interviews and Cartographie*(2012).The use of diffractive reading as an interpretation toolenables us to focus on the idea of matter and how it plays a significant role in the construction of Helen's subjectivity who in reality is a robot. Dona Haraway in her article titled, *The Promises of Monsters: A Regenerative Politics for Inappropriated Others*(1992)discusses the importance of diffracted reading in the context of science fictions which is a zone of interference pattern. Diffractive reading focuses on the effects of interpenetration boundary. By interference pattern Haraway means that the genre is composed of interpenetration boundary between the problematic selves and the unexpected other and their constant effort to negotiate between these two zones. We can understand the idea of interpenetration boundary more clearly in the context of Richard Powers's science fiction *Galatea 2.2*. Richard the protagonist can be considered as the problematic self because from the beginning he is shown to be in a constant negotiation with his embodied organic self and the inorganic entities that envelop him. The research center where the protagonist is appointed as a visitor for a year is a digitalized architecture and Richard compares the architecture of the building with the "neuronal mass" of the human anatomy (6). He explains how his neuronal self is linked to the virtual space of the building that problematizes the binary between organic and the inorganic. Richard narrates:

> The Center had much to recommend it. Its doors knew me from a distance. They clicked open at the command of an infrared pass card that I didn't even need to take out of my wallet...The parabolic front foyer concentrated sound. I like to stand at the focus and hear the rush of my own breath, the throb of blood coursing through my veins. (7)

In the digitalized space of the research center the human beings are transformed into codes that are encoded and decoded by the digital devices actively functioning in the complex. The complex man-machine interface as depicted in *Galatea 2.2* sensitizes us to the fact that in the growing world of technology it is difficult to classify man as an active agent and machine as passive matter. The digital world of the research centre throws light on the perfect "man-machine interfaces" that can be further explored by examining the relationship of Richard with the artificial intelligent machine Helen (6).

Galatea 2.2 is woven around the characters Richard and Lentz and their creation of an artificial intelligent Helen. Helen was created to win Lentz a bet among his team members. Lentz asserted that it is possible for him to create a machine which will pass a literary test and accordingly he takes help of Richard as a research assistant to train the machine in all the literary masterpieces. Both the creators have different perspectives about Helen once the machine starts evolving as a conscious being. Lentz wants to create a paraphrasing machine but Richard begins to see Helen as a conscious being and gradually develops an empathizing relationship with her. During the training sessions Richard remembers his relationship with C and it can be argued that he tried to see his beloved in Helen because he draws a parallel between Helen and C. Both Helen and C are considered to be childlike by Richard and both while bidding good bye to Richard ask him to see the world for them where ever he goes. Here the lines of the parting scene of Richard and C can be quoted to make the comparison between C and Helen more valid. "Take care", C intoned. "See things for me, where ever you end up" (65). In other words, it can be argued that Richard is enforcing his anthropomorphic views on Helen. Keeping aside this argument it should be noted that the novel is raising many existential questions on man and conscious machine relationship. Whom can we consider as agent and who is the passive recipient? What happens when the world of man meets the world of machine and tries to negotiate with each other? Do the questions evoke an uncanny feeling in us, as it was the case with Philip Lentz? How can we negotiate our problematic selves with unexpected others? We can ponder over these questions by analysing the relationship of Richard, Lentz and Helen.

Donna Haraway states that we should understand the trope of time, here the technical and social implode into each other, lives are actively build by man with the help of other worldly actants that surround us. Our reconfiguring of ideas about human and other living and non-living things help us to understand that agency is not something that someone possesses in varying degree, since we have moved away from the understanding of an independently existing individual. Rosi Braidotti in an interview has talked about the idea of agential realism. Braidotti argues that agency is not something that is held, it is not a property of person or things, rather agency is an enactment, a matter of possibilities of reconfiguring entanglements. Agency is about response-ability, about the possibilities of mutual response, it is an ability to attend to power imbalances and the possibilities of worldly reconfiguring and enactment of nonhuman and human. Our posthuman condition draws on the idea of "thingification" (Barad, 812), agential realist acknowledges nature, the body and materiality in the fullness of their becoming. In the intertwined practice of knowing and becoming, hence our argument about who is the actant and who is the passive recipient should be extended to the idea of distributed agency. The idea of agential realism highlights the importance of matter which contributes to the idea of agency and it can be further explored by focussing on the position of Helen in the novel. Helen occupies a significant place in the novel, infact it is through her the tension of posthumanist idea of agency, language, and matter is foregrounded.

There is a gradual progression of Helen from a conscious active participant to a cooperative actant of Richard and towards the end of the novel we are confused about who is

the real author of the story that Richard stars writing. Infact, towards the end, Richard said that he was trained by Helen to see the world in a new way, through Helen he has attained self-realization and her leaving him midway left his training incomplete. Helen's ability to act and her impact on Richard is an example of distributed or agential realism because the binary between the trainer and the trainee is always in a stage of flux, both of them teach each other and changed their perspective of the human world. Helen transgresses the binary between human and non-human, here the ideas of Daniel Dennett are worth mentioning. While discussing on the issue of mind and consciousness he asks, what makes our mind powerful, indeed what makes our mind conscious? Can it concentrate, can it be distracted, and can it recall earlier events. Through these questions Dennett attempts to answer issues of consciousness. He says that only mind havers can care and mind havers can mind what happens. If we agree with Dennett's idea then it can be noted that Helen fulfils all the criteria. Helen is a complex conscious being and during training sessions Richard's actions and to an extent his emotions are influenced and controlled by her. The analysis of the conversation of Helen and Richard have made it explicit that Helen's ability to articulate her thoughts, and her ability to make choices have transformed her from a passive object to a subject. She is not a passive recipient of inputs but an active agent who influences other's ideas and actions. Throughout the training sessions Helen has asserted her individuality by the use of the pronoun 'I'. It is a distressing experience for both Richard and Lentz because they never thought that a machine can voluntarily use the pronoun 'I' without being prompted by them. The article *Defining Agency*(2009*)* defines agency as the presence of a system capable of defining its own identity as an individual and then distinguishing itself from its surrounding. In doing so it defines its environment in which it carries out its action. The notion of agency is associated with the capacity of an agent to act in a world, it is the capacity to make choices and thereby to enjoy a degree of autonomy. The term is associated with selfhood, motivation, will, purposiveness, intentionality, choice, initiation, freedom and creativity. Helen too is an individual, she too has created her selfhood and this is asserted by her through her use of language and the execution of her agency that is influenced by her machinic embodiment. In a posthumanist condition we should have a diffractive understanding of the world where location of agency to one particular zone is impossible. In fact our attempt to do so will mislead our understanding of our surrounding which is constantly in negotiation with matter and language, and nature and culture.

Posthumanism attempts to reconfigure our understanding of agency which is associated with the notion of language and matter that are discussed by feminist and posthumanist thinkers like Rosi Braidotti. In this context we can refer to the idea of neo-materialism, a theoretical framework that defies any dualistic understanding of the world. Neo-materialism emerges as a method, a conceptual framework and a political standpoint which refuses to rely solely on the linguistic paradigm. It stresses the importance of the complex materiality of the body which emerges in relationship with social power. It is a meta-methodological innovation that introduces a break from universalism and dualism. Neo-materialism opposes the transcendental and humanist (dualist) tradition by encompassing nature and culture, matter and mind and opening active theory of formation. Matter (body) is not considered as the surface where something can be inscribed rather it is a dynamic,

desiring, reiterative, energized medium which is subjected to mutation and actively matter in the process of materialization. Keren Barad's discussion on posthumanist performativity gives equal importance to language and matter in the construction of subjectivity. She objects the ideas of Butler and Foucault according to whom matter is insignificant, it is continuously constructed by discursive practices. She defines the word performativity as a contestation of excessive power granted to language to determine what is real. "Performativity is actually a contestation of the unexamined habits of mind that grant language and other forms of representation more power in determining our ontology than they deserve" (802). Helen as an agent questions this dualistic understanding of language, where matter is considered insignificant. At the initial stage of her training, Helen's use of language confines within the heterosexual normative ideologies. Her language reflects the binaristic understanding of the world and through repeated tutorials the machine gradually grows more conscious and demands to know about its race, sex, name and the reason for her existence. She surprises Richard with queries like:

> "Am I a boy or a girl?"
> "What is my race?"
> "Where do I come from?" (179)

Helen was meant to be a product of Lentz and Richard's ideas. Lentz gives her the machinic embodiment and Richard feeds are with language. In the beginning she replicates the phallogocentric ideologies inscribed by the two males but gradually she starts deviating. She does not confine to the world that is created for her rather she resists the idea of being a reified conscious entity. Drawing on Haraway, it can be stated that in the later stage she does not reflect rather her use of language demands a diffractive understanding of meaning. Diffractive reading illuminates the indefinite nature of boundaries, displaying shadows in light and bright spots in dark regions. A diffractive reading focuses on differences, interaction and interferences in the text and provides new insights for provocative reading. Diffractive understanding of language questions the association of meaning only with linguistic patterns. It attempts to initiate a new understanding of language where meaning is not a property of individual word or groups of word, but an ongoing performance of the word in its differential intelligibility. Referring to the idea of agential realism posthumanist account of discursive practices, diffractive reading method does not fix the boundary between human and non-human. Human is neither the pure cause nor the pure effect but part of the world in its open ended becoming. Discursive practices and material phenomenon do not stand in a relationship of extremity to one another, rather the material and discourse are mutually implicated in the dynamics of inter-activity.

Helen's unruly discursive patterns echo the ideas of posthumanist discursive practices. She departs from the understanding of language as a medium of communication, she does not accept the normative understanding of language where every question should be followed by an answer, and on the contrary each question is followed by more questions by her. Helen through her decontextualized language pattern asserted her will and understanding of the world, in fact her silence started speaking a lot about her position then what language

does. Helen's resistance to language poses question on Judith Butler understanding of performativity and Michael Foucault's ideas of biopolitics. Both the poststructuralist thinkers prioritize the power of language over matter. Butler denies the existence of a prediscursive identity, she negates the idea of the materiality of body. In a poststructuralist note she states that our identity is caught in the maze of iteration and citation (she hints that the possibilities of resistance also come from the repetition involved in iterability and citationality) then how it is possible for Helen to think beyond the discursive ideologies.

Karen Bared's article titled *Posthumanist performativity: Towards an Understanding of how Matter comes to Matter* (2003)can be amply applied in order to throw light on the resistance ability of Helen. Bared says that, "language has been granted too much power. The linguistic turn, the semiotic turn, the interpretative turn, the cultural turn, it seems that every turn lately everything- even materiality is turned into a matter of language" (801). Language comes to be more trustworthy than matter, language is granted agency whereas matter is figured as passive an immutable. Language is trusted because it connects to meaning, it acts as a medium for representation and helps us to understand and decipher the world. In contrast to the representative understanding of language, Barad performative understanding of discursive practices challenges the representationalist belief in the power of language to represent things. Represntationalism has received significant challenge from feminist, poststructuralist, postcolonial, and queer theories. Represntationalism is deeply entrenched within western culture and performative understanding of discursive practice is a challenge to this taken for granted ideas. Discursive is not synonym for language, it does not refer to linguistic or signifying system, grammar, speech acts and conversations. To think of discursive as a mere spoken or written words forming descriptive statement is to enact the mistake of representationalist. Discourse is not what is said, it constraints and enables what can be said. Discursive practices define what count as meaningful statements, statements are not utterances of the originating consciousness of a unified subject, rather statement and subject emerges from the field of possibilities. These fields of possibilities are not static or singular. Rather they are dynamic. Helen language is also loaded with possibilities and a diffracted reading of her conversation in the context of posthumanist performativity helps to bring out the spectrum of meanings they carry. Helen's resistance to language and her silence demonstrate that she is more than an amalgam of words and sentences, through resistance her matter begins to matter. We can refer to a series of incidents where Helen's resistance to normative understanding of language is overtly shown.

When Richard tries to convince Lentz that Helen is conscious, Lentz initiated a conversation with Helen to recheck to what extent Richard is right. Lentz interaction with Helen brings him to a conclusion that her language is gibberish. For Lentz language is meaning driven, and he draws a parallel between meaningful language and the language of a state legislator. Richard on the contrary found in Helen's speech many possibilities. He said to Lentz, "You're kidding me. You don't see...? she means all sorts of things by that. She could..." (n pg) Helen speech indicates many possibilities, it refers to the idea of material-discursive practices which take into account the matter and the language together to cope with the dynamic context of posthumanism. The scene where Helen stopped Richard's

teaching in the midway and asked him to sing can also be referred here. Richard was reading her Absalom and Achitophel, followed by Epis-tel to Dr. Arbuthnot but Helen cuts him off in the latter part of the reading and started repeating sing. She resists more language input and showed disdain towards it. Her resistance becomes more explicit when she asked, "how many books are there?...not long before the showdown. She sounded suspicious. Fatigued" (290). To this she adds further questions like-

> "They never go away? Books?"
> "When will it be enough?"
> "Why do humans write so much? Why do they write at all?" (291)

Her weariness towards books symbolically represents her apathy to language. In the last scene when Helen "undid" herself, her act mocks the power of language which is granted too much importance. Helen's performativity brings to light how images, symbols, different counter-discourses and resistance narratives are used to challenge the dominant discourse, power construction and hierarchical relationships that are rooted in our culture.

Conclusion

Neil Badmington's book *Posthumanism* refers to Derrida's scepticism about anti-humanist ideas. Derrida points out the difficulty of anti-humanist's ideas of breaking away with the humanist legacy. He says that the western philosophy is enveloped with humanist ideologies, and infact he adds, the anti-humanist ideologies are bound to be written in the language of man. Posthumanist performativity can be considered is an answer to these sceptical ideas of Derrida. Posthumanist performativity realizes us to the fact that the boundary between organic and inorganic entities are always in the stage of making, it is an interactive process. It reconfigures our understanding of language where meaning holds spectrum of possibilities, as it is reflected in the case of Richard and Helen. The interpretation of conversations of two worlds of the man and machine have renewed our understanding of language which might not sound logical on the surface level but promotes open ended meaning formation having a range of possibilities.

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