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An Affirmation of Coexistence between Artificial Intelligence (AI) and Human Intelligence (HI): An Inquiry into the Structure of Kazuo Ishiguro's novel, *Klara and the Sun*

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Abstract

A narrative reflective of the perils and promises of automation entering the subjective realm of humankind, Kazuo Ishiguro's latest novel, *Klara and the Sun*, confronts us with the notion of coexistence between artificial intelligence (AI) and human intelligence (HI) by uncovering a robust structure arising from the contestation amidst a host of binaries: Human versus machine, AI versus HI, self versus the other, science versus nature, and the list goes on. Although a vast majority of analytical inquiries into this novel uncover the incoherence of human identity and consciousness in the society deeply invested in affordances of the fifth industrial revolution, a structuralist intervention into the narrative brings into visibility the fact that AI and artificial friends (AFs), regardless of their claim to universal decipherability, ultimately remain unable to plumb the depth of human heart. In this novel, Ishiguro confirms that the unpredictable vagaries and volatility of the human heart are eternally indecipherable to AI and AFs. Human nature is hieroglyphic to AI. For example, Klara's failure to rightly assess the future course of Josie and Rick's romantic affinity serves as demonstrative textual evidence. Taken on its terms, the successive navigation of these binary oppositions leads to identifying the narrative structure wherein the coexistence between AI and HI achieves its endorsement. These twin purposes of the narrative—the unconquerability of the human heart by AI and the coexistence between AI and HI—ascend to the centrality of meaning, governing other binaries and producing a compelling rendition of the structure.

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Kazuo Ishiguro, a revered figure in literacy circles, consistently introduces profound intellectual realms through his literary oeuvre. Acutely aware of critical challenges people at large are surrounded with, Ishiguro endeavors to present compelling solutions that, while possibly unsettling to entrenched human sensibilities, invariably leave an indelible and resonant impact on countless hearts. Famed for striking harmony amidst the discordant impulses of an inquisitive intellect and a curious heart, many of his novels jostle to ignite fervent discourse, immediate reflections, and critical analyses. These narratives delve into the intricate web of societal norms, illustrating humanity's formidable challenge in adapting to a society straddling the threshold of tradition. The nuanced portrayal of human emotions amidst multifaceted transitions spanning societal and technological spheres is central to many of his works.

Ishiguro's latest novel, *Klara and the Sun*, stands as a testament to the pursuit of resolution by minds and hearts embroiled in turbulent societal currents that imperil the seamless continuity of civilization. In the narrative, Klara is portrayed as a second-generation AF owned by a frail girl in her teens, Josie. Despite belonging to a second generation, Klara has already gone sentient. She is potent enough to display living human behaviors, capable of precise observation and emotional intelligence. This unassuming and compliant AF, devoid of

threatening implications for human existence and intellect, elicits audiences' attention, whether or not they are familiar with the literature on AI. A strand of interpretation posits that Ishiguro's work, *Klara and the Sun*, explores the concept of an AI-powered (AF), functioning as a nurturing entity capable of tending to the health of a frail young girl. More poignantly, through this portrayal of AF as a sentient capable of empathy and cognition, the novel comes up with a new perception of AI: A posthuman perception that challenges the conventional notion of AI as a machine devoid of emotions¹. While the novel does contain sufficient evidence to support this point, some other interpretations treat the novel differently by basing a viewpoint on humanism. From a humanistic point of view, the novel raises some pertinent questions about human beings: Their love, their joy, their pain, dreams, and aspirations².

Needless to say, the spirit of humanism, in its languishing state, has always been a moot point in a majority of Ishiguro's narrative. This point is further reinforced by other inquiries that legitimize any reading that presents this novel as a series of reflections on the illusions of mastery³. If this reflection on the illusory makeup of mastery is pushed further, it does become a critique of techno-optimism. In this line, the core tenor of Ishiguro's narrative comes to push us to reckon with our anxieties about the future of emerging technologies and confront deep questions about

¹ Ajeesh & Rukmini, "Postmodern Perceptoin of AI", 853.

² Bavetra & Ravi, "Hope, Faith & Love", 295.

³ Sun, "Post/Human Perfectability", 504.

the nature of dignity, existence, and humanity⁴. Whereas all these thematic possibilities and flexibility tilt in favor of the subjective realm, this interpretive frame does not cease to catch us completely off guard by disclosing a wealth of thought-provoking messages if it is approached with a pragmatic frame of interpretation. On the one hand, the dynamic interplay between human beings and machines as the bastion of the narrative entices every serious reader of the novel⁵. On the other, the novel matters meaningfully to those who want to do a political reading of the novel.

If viewed from a window of disciplinary power, the novel does foreground a complex disciplinary system in which the human gaze constantly reifies technological other and internalizes practices of self-discipline⁶. The novel's interpretations encapsulate posthuman, postmodernist, and dystopian tenets of thought. These perspectives navigate the narrative's amorphous and accommodating structure, which favors the fragility of human identity, the fluidity of consciousness, the visceral ascendancy of technology, and the inherent humanness of humanity. However, I propose an alternate assertion that challenges the manifest meanings of the novel: Multiplicity of identities, fluidity of consciousness, human vulnerability, and disruptive technology. With deliberate pacing and unwavering certainty, the novel traverses various binaries and dualisms in

a remarkably straightforward yet striking manner. Its ultimate essence rests not on the interplay of opposed parameters but a robust structure. This structure asserts that, despite a claim to omniscience on the part of the superintelligent nature of AI and AF, there exist fantasies, fancies, and a wild wonder buried deep within the human heart, impervious to precise decoding. Consequently, the optimal resolution emerges from the coexistence between AI and HI. Klara, possessing enviable observational skills and unshakable faith in the nurturing prowess of solar energy, remained steadfast in her conviction that Josie would recuperate from her terminal illness. Throughout Josie's portrait-making, her consciousness was downloaded into Klara, enabling a profound understanding of Josie's impulses and stimuli. Klara's assurance in Josie and Rick's budding romantic relationship and future matrimony spurred her tireless efforts toward Josie's recovery.

Ironically, Josie and Rick diverged from their passionate adolescent bond shortly after her complete recuperation, challenging Klara's belief in their enduring connection. This celebration of the unpredictable human heart, exemplified by Josie's post-recovery decisions and Rick's similar choices, contradicts Klara's conviction about their lifelong partnership—the basis for Klara's relentless pursuit of Josie's recovery. The novel's core message lies in

⁴ Mejia & Nikolaidis, "Through New Eyes", 303.

⁵ Yameen & Khalid, "Examining the Dynamic Interplay", 267.

⁶ Simonetti, "Mastering Otherness", 1.

acknowledging that neither an AF with sentient intelligence nor any machine culture can accurately fathom the depth of the human heart's enigmatic realm. This celebration of the human heart's inscrutability is the central theme, rendered compelling and relatable by the narrative's structuring. In what follows, I will outline prominent binaries that Ishiguro explored and will discuss how the steadily evolving structure finally purvey the message that the interiority of the human heart is beyond the comprehensibility of AI and AF—a message that serves as a bulwark against the disruptive proliferation of automation, AI, AF, and other detrimental consequences of the fifth industrial revolution.

Prior to unpacking some attention-drawing binaries inherent in the closed narrative structure of the novel, it makes perfect sense to move forward with the core insight that structuralism is “an activity of dissection and combination.”⁷ It is proverbial that structuralism's theoretical thrust has exceeded the bounds of literary criticism and art critique. In this respect, its potential as a methodological move is so pervasive that it gains the upper hand as “a systematic exploration of its intertextual, linguistic and epistemological limits”⁸ even in studying linguistics, anthropology, and philosophy. Its clarion call to pay attention to the system or structure that arranging a pack of meaning binaries, alters how humans perceive and analyze complex systems. It gained massive traction in

the early 20th century and offered a theoretical oasis for those who sought to step into challenging conventional thinking by emphasizing the importance of structure over individual elements.

In bringing forth new ways of thinking, structuralism postulates that elements in any system gain meaning and significance through their relationship within a larger, overarching structure—a structure whose effectivity comes to the surface if “hidden patterns, regularities, and underlying rules governing disparate phenomena are brought to the surface”⁹. As a site that makes room for a crystal-clear illustration of structuralism, linguistics is one of the pioneering domains that needs a brief discussion in relation to this inquiry at hand. Its application in the capacity of a mode of revitalized literary criticism draws on a postulation that “structuralism holds out the promise of the revitalization of criticism—a means of transforming literacy criticism into a mode of knowledge that goes beyond both limited types of formalism and a strictly interpretative approaches.”¹⁰

Ferdinand de Saussure, a prominent linguist, emphasizes the structural aspects of language, arguing that words derive meaning not inherently, but from their place within a system of language, like a chess piece's significance in the game's structure. For Saussure, language is “a fixed structure governed by rules. Individuals

⁷ Barthes, “The Structuralist Activity”, 19.

⁸ Sturrock, “Structuralism”, 15.

⁹ Todorov, *The Poetics of Prose*, 8.

¹⁰ Taghizaden, “Literacy Structuralism”, 286.

experience language passively rather than creatively as an existing system”¹¹. Another aim of the course was to propose that the discipline of linguistics should not only study languages as contained systems but also examine how language functions in human society. Full credit goes to Saussure for introducing the concepts of signifier and signified, and what makes his postulation so groundbreaking is the assertion that the connection between a word’s sound (signifier) and its meaning (signified) is arbitrary and established by societal agreement.

Saussure postulates that a systematic ordering of binaries gives rise to a structure wherein one element governs the structurality of the structure, relegating all other elements to a subordinate role. The prominent element’s centrality totalizes the structure. Moreover, the structure uncovers itself if an entity, discourse, or representation is dissected and recombined. With this insight into some specifics of application, structuralism appealed to literary critics and critical readers of literature and arts alike—who started drilling down into narrative structure and recurring patterns in storytelling—by exploring how the arrangement of elements within a text contributes to its meaning and significance. This approach revealed how narratives are not merely linear but interconnected webs of relationships between characters, events, and themes.

¹¹ Key & Noble, “An Analysis of Saussure’s Course”, 2.

One transdisciplinary exercise in the boundary-spanning power of structuralism can be found in anthropology. Structuralism began in “linguistics and was enlarged by Levi Strauss into a new way of thinking that views our world as consisting of relationships between structures we create rather than objective reality.”¹² Claude Levi-Strauss applied structuralist principles to understand cultures and societies, and proposed that cultural phenomena, such as myths and rituals, can be decoded by identifying the underlying structures governing them. According to him, unrelated cultural elements could be analyzed through binary oppositions, revealing universal structures of the human mind.

With this structuralist lens, let’s venture into the narrative of *Klara and the Sun*, which develops its central essence by dramatizing the tensions between humans and machines, HF and AF, lifted kids and unlifted kids, natural reproduction and clustered regularly interspaced palindromic repeats (CRISPR) Cas9- powered reproduction, automation and augmentation, vagaries of the human heart and the limit of AI. Put in crude but compelling terms, the binary pairs and conflicting parameters are intensified so prominently in the novel that the narrative builds its structure progressively, with each successive pair of the binaries explored

¹² Kurzweil, “The Age of Structuralism”, 256.

authentically, thereby assisting the novel in getting its robust structural backbone.

Simply stated, the structure of the narrative achieved totality when Klara's unshakable faith in the permanence of Josie-Rick's flourishing romance eroded, having had to see Josie and Rick following their hearts' fancies at the cost of their budding adolescent romance. Specifically, Rick's utterances— "But now we are no longer kids; we must wish each other the best and go our different ways. It could not have worked out, me going to college, trying to compete with all those lifted kids. I have my plans now, and that is how it should be..."¹³ is compelling evidence that he was following the arc of his ambition in the post-recovery period of Josie, who, too, was following suit. Before Josie and Rick took this decision, Klara had naively believed that they would continue their relationship if Josie was cured of her terminal disease and that both would flourish as life partners. What led Klara to hold fast to this assumption is a case pertaining to both Rick and Josie doting on each other affectionately, passionately, and possessively in the face of Josie's hopeless fight against her terminal illness. Having seen the depth of Rick and Josie's affection for each other, Klara had decided to recover Josie anyhow from that imminent danger by doing everything in her power, but following her unprecedented recovery, Josie steadily turned her mind away from Rick, who also matured into a lad far more interested in exploring the perils and promises of the practical world rather than moving

forward with his adolescent infatuation with Josie.

It is evident to Klara that she was wrong in her conviction about the future of the budding, passionate affinity between Josie and Rick. Even with her observational capacity to comprehend everything related to humans that came closer to the compass of her comprehension, Klara failed to crack open the vagaries and volatility of the human heart, such as her failure to chart the course of the passionate bond between Josie and Rick. This central message is predicated upon a solid structure that evolves, along with each narrative act of pitting one binary against another, so that each binary's contribution to the structural foundation of the narrative could be lucid.

Just as the decomposition of a compound helps its underlying structure resurface, so does this analytical inquiry bring into light the structure by disassembling most of the striking binaries strategically pitted against one another in the novel. This structuralist act plays up the structurality of the structure that centralizes one meaning over several other meanings. The centrality of the meaning is that, despite having acquired a sentient identity and been imbued with extraordinary observational capacity, Klara remained unable to assess the unpredictable nature of the human heart in general and the hearts of Rick and Klara in particular. The question—what lurks in the dark recesses of the human heart?—is unanswerable for an AI-

¹³ Ishiguro, *The Klara and the Sun*, 288.

powered humanoid robot. This message—pure and simple—exerts its bearings on the reader only if supported by the structure. That is, the centrality of this meaning resonates in relation to the narrative structure, which is consolidated by plenty of binary pairs. In what follows, efforts are made to untangle major binary oppositions by dwelling on their pros and cons, as enumerated by Ishiguro. The principal analytical spotlight will be on how those binaries contribute to crystalizing the structure, playing up a point of view as the central element that impedes the assertiveness of other binary pairs, thereby rendering the structure closed and cohesive.

Human versus Machine

One conspicuous binary pair characterizing a bodacious contestation that underpins the narrative of *Klara and The Sun* is human versus machine. The initial part of the novel narrowed down the lacuna between humans and machines. As recounted in the novel, the young generation in the society adhering to the norms of the fifth industrial revolution feels ill at ease; they are intensely alienated from the erstwhile practices of coping with loneliness by befriending like-minded human friends, which is reflected in a remark of the manager: “A child like that, with no AF, would surely be lonely.”¹⁴ On the contrary, they choose AFs—AI-powered humanoid robots capable of displaying living human behaviors. These AFs have already become sentient and have guided their human friends in managing their human

counterparts’ public and private human affairs. At first, it appears that humans in the young generation are worrisomely dependent on AFs. Surprisingly enough, AFs have already gone sentient and have a talent for observation in an exceptional manner. The following extract attests to Klara’s observational tendency, which even human characters in the novel envy:

But I realized how much I’d grown used to making observations and estimates in relation to those of other Afs around me, and here, too, was another adjustment I had to make. In those early days, at stray moments, I’d often look out at the highway going over the hill—or at the view across the fields from the bedroom rear window—and search with my gaze for the figure of a distant AF before remembering how unlikely a prospect that was, so far away from the city and other buildings.¹⁵

There is no liminal line between human exteriority and interiority for AFs, with the implication being that they not only accompany their human friends within the domestic and interior realm of affairs, but follow their human counterparts wholeheartedly. Always mindful of giving human friends the privacy they deserve, these AFs have developed self-consciousness—a faculty of their cognitive structuration that alerts them to some limitations of their power and potential.

¹⁴ Ishiguro, *The Klara and the Sun*, 11.

¹⁵ Ishiguro, *Klara and the Sun*, 11.

By far, the most enviable hallmark of these AFs rests on their empathic sensibility. With their sentient neural network allowing them to be responsive to every new situation they face, they were already given to mimicking and emulating the thought processes of their human friends. Consequently, the AF has erased the boundary between humans and machines. However, upon an analytical dig into a few layers of the narrative in the novel, it is apparent that the dichotomy between humans and machines is conspicuously compelling. Human characters employed in the novel are enmeshed in their losses and nostalgia, whereas Klara is consecutively optimistic. At one moment in the narrative, the mother says, "It must be nice sometimes to have no feelings. I envy you."¹⁶ In response, Klara says, "I believe I have many feelings. The more I observe, the more feelings become available."¹⁷ With human characters in the novel plumbing the depth of despair owing to their inability to pull off the anticipated successes, they react to some impasse they go through in a mechanical manner. In essence, the net result of their struggles is one of being overpowered by challenges. More precisely, this gives us the insight that Klara seems intent on turning around every challenge that comes her way. In the wake of being indifferent to the subtleties of elemental forces, clean surroundings, and the sun's nourishing energies, the machine is

miraculously sensitive enough to perceive the healing effect of the elemental forces, including the nourishing energies the sun emits.

Pivotal to the novel are human characters striving for a breakthrough in the vertices of their entangled existences and managing their convoluted affairs. Equally seminal is Klara's caliber to cultivate hope even in the face of the looming threat of Josie's terminal illness. In fact, none of the human characters rival Klara regarding the power of observation and pattern detection. That is why Klara, in one of her monologues, concludes, "Humans could choose loneliness."¹⁸ The sensitivity, subtlety, and unbearable sense of commitment to keeping intact the goodness of the human heart characterize the way Klara does her job as an AF. Approached from this angle, the mother, Melania, the father, Vance, Capaldi, Helen, Josie, and Rick strikes us as being increasingly devoid of these vital qualities. Shrewdness and selfishness on the part of these human characters coexist with the gentle naivety of Klara, who pins her hope on the inevitability of the redemption of humans from their self-incurred maladies and malaises. This is one way the binarity between humans and machines is widened, with the thrust that "Relational ontologies are more suitable to subjectivity and personhood, in the particular case of interaction between the human and nonhuman"¹⁹. Ironically enough,

¹⁶ Ishiguro, *Klara and the Sun*, 97.

¹⁷ Ishiguro, *Klara and the Sun*, 98.

¹⁸ Ishiguro, *Klara and the Sun*, 152.

¹⁹ Li & Eddebo, "Humanity of the Non-Human," 1.

it is sentient AI-empowered Klara who strikes us as more human than human friends and human characters in the novel, who behaves like a machine, reacts to every bit of unexpected situations sporadically, and feels untethered from the axis of the fecund faith in the face of feckless future. To be more precise, while Klara possesses grit, gut, and gumption, the human characters, such as Josie's father, Josie's mother, Mr. Kapaldi, Miss Helen, and her ex-flame, are gratuitously gullible. Their existences are gored to fragments, and they are vulnerable to precarity and some forces apparently out of their control.²⁰ All these deeper differentials between AFs and HFs foil the conspicuousness of binary opposition between humans and machines, dispelling at one sweep the sought-after parity between human friends with natural cognitive networks and sentient AFs with human neural networks.

Another shocking dichotomy slowly unveils the gap between what the novelist Ishiguro calls "lifted " and "unlifted" kids."²¹ Throughout the novel, Ishiguro does not explicitly reference "the blatant fallouts of gene-editing technology CRISPR Cas9", a leading-edge technology largely deemed as the holy grail of genetic engineering.²² The heart of the novel, so to speak, deals with the bleak prospect of both the affordances and agonies stemming from the application of this gene-editing technology. As the novel recounts, the

society riding high on the fifth industrial revolution feeds on a host of practically untested innovative ideas on the biotechnological revolution and genetic engineering. Because of the breakthrough in genetic engineering with the invention of CRISPR Cas9, the notion of "a genetic supermarket came into being," along with the incipient practice of getting the genes for the babies to be edited.²³ It is not much of an exaggeration to say that Ishiguro had observed the far-reaching repercussions of the ethically questioned practice of lifting the kids with their genetic makeups edited, using CRISPR Cas9, hoping that the kids with edited genetic setups would acquire superior intelligence, talent, passion, and penchant²⁴. The practice of begetting babies with edited genetic structures was expensive; consequently, only the kids of affluent parents were able to afford it. Moreover, lifted kids outperformed unlifted kids²⁵. At the acceleration of this proclivity, it was hard for unlifted kids to compete with lifted kids. In relation to this bleak prospect, the binary between lifted and unlifted kids—and all that goes with it—constitutes the underlying structure of the novel. On this point, one of the original semblances of the novel's structurality is informed of the void in the society Ishiguro so deftly addressed in the novel. For instance, Rick is an adolescent acutely aware of the problem resulting from the applications of emerging biotechnological tools and the latest gene editing technology.²⁶

²⁰ Asai, et al., "Desperate Mothers", 77.

²¹ Ishiguro, *Klara and the Sun*, 82.

²² Banerjee, "Just Fabric", 1.

²³ Singer, "The Genetic Supermarket", 309.

²⁴ Gungor, "A Eugenic Attempt", 1523.

²⁵ Ishiguro, *Klara and the Sun*, 271.

²⁶ Ishiguro, *Klara and the Sun*, 211.

It is of particular interest that Rick comes from a single-parent family. He lives with his mother, Miss Helen. There is no reference to his father in the novel. An unlifted kid, Rick feels inferior. Part of the problem is that he always felt embarrassed in the group of other lifted kids. Once, Josie, Rick's sweetheart, threw a party in her home and invited many of her friends, both boys and girls, who were all lifted. Since Rick was also invited, he joined that gathering, despite his self-incurred grudge and qualm. At the gathering, Rick was paid so much attention by other lifted kids attending the party that he felt deeply flustered. Some lifted girls took a dig at Rick when he said he was in the habit of watching a movie in the theatre with his mother. The following extract serves as evidence of how unlifted Rick was treated as a figure of fun in a gathering at Josie's party:

Hey, another girl said behind me. 'He is saying he goes to the movies with his mom. That's kinda cute. Does your mom not like you going with your friends?' It is not like that exactly. It's just... it's something my mother and I like to do. Did you go and see *Gold Standard*? 'No way his mom would like that!' Josie now stepped forward in front of Rick. 'You know what?' He spoke not to Josie but to all the others, 'I like movies in which horrible things happen. Insects coming out of

people's mouths, things of that nature.'²⁷

The lifted kids at the party got so curious about Rick's habits, passions, quirks, and choices that they appeared to be nosy parkers. In turn, Rick, too, felt unaccommodated, unaccepted, and unrecognized in that gathering, in which the voice of the lifted Kid got the upper hand. Still more serious, some lifted girls openly laughed at Rick's anxiety about his plan. At one point in the gathering, decency and civility fell apart. Conversely, a parental intervention mitigated and managed the friction in their friendship, which was dreadfully disappointing.

Similar contestatory dynamism occupies the binary opposition between a new generation thriving on the affordances of cutting-edge genetic engineering technology and the societal status quo. The society that Ishiguro depicted in the novel has witnessed an enormous chasm traceable to an outgrowth of social governance where leading-edge technology reigns supreme.²⁸ This yawning chasm posed a threat to social integrity. The severity of this chasm is further highlighted by Rick's "inability to get admission to Atlas Brookings"—an institution, perhaps a university college, that admits only lifted kids in its promising, popular, and powerful program.²⁹ Out of hundreds of applicants, merely two percent of applications—dropped by unlifted applicants—stand to

²⁷ Ishiguro, *Klara and the Sun*, 74.

²⁸ Fenclova, "The Ethics of AI", 1.

²⁹ Ishiguro, *Klara and the Sun*, 129.

be accepted at Atlas Brookings. This is a painful indicator of how tough it was for an unlifted kid like Rick to get admission to prestigious institutions like Atlas Brookings. Because of the students with enhanced talent attributable to a radical program of genetic restructuring, the students without the affordances of altered genetic makeup had already lagged in that competition, which is nowhere as reflected as in this short chunk of Josie's snide remark about Rick, "You could at least try more. You could do as we said. Study harder. Try Atlas Brookings. What is the point in talking about Alas Brookings? I do not even have an outside chance?"³⁰ Since Rick was left behind in competition with other lifted kids, he felt alienated. At one point, his faith in the university's power eroded.

Irrespective of Rick's sustained interest in drone science, there were only a few within his circle and connection to appreciate his passion and penchant for drone science and robotics. As previously touched upon, everyone emphasizes getting admitted to Atlas Brookings as a shining token of success in education. Much to Rick's chagrin, those in conversation with Rick emphasized conformity over creativity and the institutionalization of individuals over an uninhibited passion for exploring areas of interest. This corporatization and ideology of automated neoliberalism contributed to forming Ishiguro's narrative structure.³¹ Being at odds with the

societal push to yield to tech-friendly forces and corporatization, Rick stands to be counted as a pariah. This is to say that the path he contemplated choosing was slated to emphasize the fact that Rick is a failure, but, to be honest, he is a squire peg in a round hole. The society he was part of, a microcosm of the fifth industrial revolution, tried to put Rick in the procrustean bed of automated neoliberalism, speaking figuratively—one of the fulcrums of the fifth industrial revolution.³² In some cases, having seen Rick's exhaustion, even Josie got into a heated argument against him over his being imbecile in a race to go well in the external competition with other lifted kids, because he does not want to keep himself out of the shadow of his mother's influence. The following excerpt concerning the heated discussion between Josie and Rick illustrates the point:

'It all gets in the way, Ricky. Gets in the way of our plan for one thing. 'Looks, I am doing my best...' 'But you are not doing your best, Ricky. You keep talking about our plan, but what are you doing? As each day goes by, we get older, stuff keeps coming up. I am doing all I can, but not you, Rick'. 'What am I not doing I should be doing?' you could at least try more. You could do as we said. Study harder. Try for Atlas Brookings'.³³

³⁰ Ishiguro, *Klara and the Sun*, 129.

³¹ Birch, "Automated Neoliberalism", 10.

³² Jung, "Artificial-Friends and Becoming-Machine", 161.

³³ Ishiguro, *Klara and the Sun*, 129.

As the divide between the lifted and the unlifted kids loomed large on the horizon, its ripple effects resurfaced precariously, alarming those genuinely concerned about this formidable challenge. To be explicit, Helen had seen no chance of Rick being accepted to Atlas Brookings. Digging a bit deeper, she finally decided to use her secret weapon—her ex-flame Vance, who is on the admission committee at Atlas Brookings. She arranged a meeting with him, in which Rick also joins.

Much to Rick's chagrin and embarrassment at the meeting, Helen and Vance reminisced about their love that failed decades ago due to Helen's sudden apathy to Vance's repeated phone calls and emails. Over the course of the conversation, Vance spoke out at the fact that Helen was asking for a favor with him for having Rick admitted to Atlas Brookings—which is expressed in one of Vance's utterances, "If you are not seeking favoritism, then why am I sitting here in front of you now?"—even though Rick had made a nice move at the beginning of the conversation by stating that his goal of meeting Vance is not to solicit a favor, but to discuss with him something about his growing interest in drone science and some progress he has already made.³⁴ That conversation, which started in a business-like manner, proved utterly embarrassing to Rick, and near the end of the conversation, it appears that Vance might be willing to offer a modicum

of his magnanimity to save Rick from his precarious future. This conversation and the attendant challenge Rick encountered throughout the competition with lifted kids emblemizes the widening binary opposition that virtually threatens to trigger new forms of inequality ascribable to the limitless exploitation of humans' faith in scientific optimism and tech utopia. Even more importantly, the dark undertow of the ongoing projects on biotechnology and genetic engineering has metonymically come to the forefront of the narrative to gain more traction here and put the point in a more contemporary framework³⁵. For certain, the mention of a scrap of tragic textual evidence is relevant: "Sal...passed away."³⁶ Sal died of an unknown complication arising from her genetic structure edited in anticipation of possessing talent matchless and monumental.

The unfathomable binary resurfaces when Klara asks about Sal during her expedition to Morgan's Falls with her mother and Josie. Sal had long been afflicted with a terminal illness—an illness that comes off as "a side-effect of getting our natural genetic order altered, edited, and enhanced in the hope of acquiring extraordinary and exceptional talent."³⁷ To put the matter as directly as possible, Ishiguro made his narrative universe populated by kids who scramble in a race to accumulate uncommon talent reserved exclusively for those

³⁴ Ishiguro, *Klara and the Sun*, 271.

³⁵ Javaid, "Ethics, Genes Editing and Digital Immortality", 247.

³⁶ Ishiguro, *Klara and the Sun*, 102.

³⁷ Ishiguro, *Klara and the Sun*, 105.

who follow the cult of gene editing or for those who would buy the finest gene of their choices from the genetic supermarket. Quite possibly, his narrative universe is prone to some detrimental effects, such as kids with edited genetic codes developing a terminal illness of an unidentified type that is supposedly incurable. In this regard, Josie's sister Sal typifies this lethal phenomenon—as encapsulated in the mother's insistence, "Sal passed away, it was a great tragedy, and we shan't play foolish games with her memory"—which amounts to saying that with the application of gene editing comes not only extraordinary talent but also an invincible peril of contracting disease leading up to the untimely demise of those who allowed themselves to be genetically super-enhanced via the application of CRISPR-CAS9.³⁸ Overwhelmed by this vogue of hacking the superintelligence inherent in their genetic code via gene editing, they left no stone unturned in cherishing their faith in CRISPR-CAS9 as a bestower of blessings hitherto unimagined by humanity.

The narrative elements above elucidate the pros and cons of tapping into every sliver of affordances that could arise from an uncritical application of cutting-edge technology the revolutions in biotechnology and genetic engineering have brought forth. In line with this development, Ishiguro's narrative progresses, having a binaries-packed structure predicated on the

contradiction between the lifted and unlifted kids, the mystery of Sal's untimely death and human supineness, the mother's every effort to get Josie's recovery and Josie's terminally languishing health, Klara's desperately altruistic move to have the sun nourish Josie's recuperation and impasse thereof.

Automation versus Augmentation Binary

At the heart of the narrative of *Klara and the Sun* lies an unbridgeable binary opposition between automation and augmentation. Beyond a shadow of a doubt, "automation has started taking hold in the manufacturing and industrial sectors," which typifies the spirit of the fifth industrial revolution.³⁹ Upon examination of the pervasive hold of automation in significant sectors of the fifth industrial revolution, an unconventional phenomenon is bound to crop up, one that comprises a growing tendency to depend on automation while managing our affairs, emotions, and relationality.⁴⁰ If argued in line with the core narrative content of the novel, it confounds us to come to terms with the preferences of the young generation: A generation of kids such as Josie, Rick, and the long-armed girl prefer having the latest generation of AFs. The AF store manager's opinion, "There are many children out there who would love to be able to choose Afs...A child like that, with no AF, would surely be lonely," is a pragmatic reminder of this trendy vogue of having an AF.⁴¹

³⁸ Ishiguro, *Klara and the Sun*, 148.

³⁹ Xiao, "Emotional Repression", 354..

⁴⁰ Stenseke, "The Morality of AF", 1.

⁴¹ Ishiguro, *Klara and the Sun*, 11.

In bringing forth an oasis for those affected by loneliness, the AFs provided a satisfactory level of friendliness to their human friends who chose them. In what is for me, one of the strengths of AFs, Klara helped Josie cope with the dread and dreariness her terminal illness incurred. In keeping Josie's monotony and misery at bay, Klara's encouraging presence proved incredibly helpful. For the sake of managing Josie's private life, emotions, hope and despair, present and future, Klara played a prominent part loyally and kindly. Slowly, almost imperceptibly, she patched a misunderstanding between Josie and Rick by bringing them closer to understanding when they were distanced and estranged. Following a heated argument, Josie blamed Rick's mother for his ineptitude at the party she had thrown in her home.⁴² The young characters in the novel allow for the management of their personal lives to be automated with AI-empowered robotic friends. The AFs they chose did all types of chores, ranging from accompanying human friends to shopping and outings to negotiating with natural friends, including the natural friends' disappointed boyfriends. It seems the human-machine bifurcation and binary are increasingly narrowed because how AFs operate approximates humans' natural operationalization process, and AFs, such as Klara, have already become sentient. In spite of the successive play with distance and proximity between the binary pair, what stuns the readers to bits is an impression that the

dichotomy between humans and machines has been rendered less emphatic and blurred as it gravitates toward the finality of the narrative progression. Yet, this is a deceptively simple impression every reader of the novel must come up with.

To proceed along similar lines, the binary opposition between man and machine is affirmed and extended with a nuanced rendition. Along the way, the duality of automation-augmentation keeps gaining the upper hand, letting the binary differences play out, sometimes getting constricted and dilated in equal measure. If this formalistic thrust was to be limited to the narrative context, Klara inched closer to embodying some of the paradigmatic attributes native to humans. The following extract from the narrative of *Klara and the Sun* illuminates how Klara muster her ability of assessment:

If this were so, I knew my best course was to work harder than ever to be good AF to Josie until the shadows receded. At the same time, what was becoming clear to me was the extent to which humans, in their wish to escape loneliness, made maneuvers that were very complex and hard to fathom, and I saw it was possible that the consequences of Morgan's Falls had at no stage been within my control. As things turned out, however, I had little time to dwell on the Morgan's Falls shadow because Josie's health

⁴² Ishiguro, *Klara and the Sun*, 131.

collapsed several days after the outing.⁴³

Arguing in line with a specific narrative moment from the novel, when all of Josie's relatives and parents were in deep despair concerning Josie's critical health, Klara came to the forefront as a redeemer. At that critical juncture, she brightens the last ray of hope for Josie's recovery, when all of her parents, relatives, and friends had almost lost all hope.

On this positive note, it stands to reason that no matter to what extent Klara was confined to the role of automating friendship, she left no stone unturned in keeping intact the languishing prospect of Josie's longevity through means aplenty: By resorting to dismantling the Cootings Machine, by her visit to Mr. MacBain's Barn, by beseeching and supplicating the sun to shower nourishing energy on Josie, by seeing through the game and gimmicks of Mr. Capaldi, and the list goes on.⁴⁴ Contradictory as it may sound, what was programmed to automate has started augmenting those who designed them to that end. At times, the targeted goal of automating human emotion and intimacy happened to augment the loveliest display of friendship.

Along similar analytical lines, the automation-augmentation binary is explored from a closer perspective of nonduality and sometimes from the perspective

shaped by dualism and binary in equal measure. This process of allowing for the payout of the structurality of the narrative structure in the novel throws a spotlight on how a shifting treatment of dominant binary opposition between automation and augmentation makes a good case of the structuralist inquiry into *Klara and the Sun*.

It is of particular interest that Josie and the mother exercised their prudence judiciously in choosing Klara, a second-generation AF whose "extraordinary observational ability" is legendary.⁴⁵ Over the course of Josie's gradual alignment with Klara, the mother was unhappy with Josie opting for a trendy vogue of automating her need for friendship by having an AF. Even Josie's housekeeper, Melania, behaved suspiciously and rudely with Klara, as recounted in the early section of the narrative's part two: "When at last she turned angrily around to me and shouted, quit following me AF get lost!"⁴⁶ During the initial phase of Josie's friendship with Klara, Josie chided Klara; in being introduced to Rick, Helen, the father, and the others, Klara had to face not-so-welcoming gestures, which wholly dispels the idea of augmenting human efforts to enjoy affordances and comforts. The worst narrative component that dilates the binary opposition between automation and augmentation is one related to Mr. Capaldi's sporadic arrival at the mother's house to dismantle Klara so that he could ease the

⁴³ Ishiguro, *Klara and the Sun*, 114.

⁴⁴ Ishiguro, *Klara and the Sun*, 221.

⁴⁵ Ishiguro, *Klara and the Sun*, 45.

⁴⁶ Ishiguro, *Klara and the Sun*, 51.

growing fear of the public about humanoid robots that are intent on not only overtaking humans but also driving them into obsolescence.⁴⁷

Self versus the Other

Much ink has been spent writing on the binary opposition between self and the other. Ishiguro has experimented with a nugget of proverbial wisdom that self exists because of the other. In this experimental scenario, it makes sense to conceive of Klara as a sentient rendition of self because she, like humans, has developed a sentient identity and is capable of emotional intelligence and empathetic sensibility. In addition, she communicates smartly by perceiving external hints, codes, instructions, and context-specific stimuli. Hence, There is—and should be—every reason to believe that Klara is capable of “mature thinking, fecund feelings, and compelling altruism.”⁴⁸ Endowed with these human attributes, Klara Strikes us as a living embodiment of self on par with humans, regardless of the fact that she belongs to not the third but the second generation of AFs. Foundational to this form of imagination on Klara’s end is “a generational continuity and the symbolism of the child, a trope of a new generation as a promise of the future, or rather, a better human future.”⁴⁹ Undoubtedly, having sentient faculty is a ground-breaking achievement for a machine. In this context,

primarily, readers may develop this impression if they read just the novel’s first part, but the experience of digging into the narrative betrays clues and inklings that are contrary to these expectations. Heedless of being endowed with a sentient self, rational prowess, and observational capacity, Klara desperately yearns for human recognition before inwardly achieving a holistic sense of completion at being chosen and owned by Josie. Precisely as such, there are a few scraps of evidence as to if other AFs also developed the same intense hankering after recognition or not. This extract from the narrative, “By mid-afternoon, though, I realized how unreasonable this idea was. I stopped looking for Josie out in the street and concentrated instead on learning more about the outside,” expresses Klara’s growing restlessness and desperation for Josie’s arrival so that she could buy her.⁵⁰ She used to have an intense feeling of being chosen by a human friend – that is, being bought by a human friend and then taken to their home. Seeing the latest generation of AFs being bought and taken to their homes from the store unleashed her longing to be chosen by the buyers of AFs.

Ample textual elements prove that the profundity of Klara’s longing for human acceptance is nowhere as touchingly documented as in a moment following the first visit of Josie and the mother to the AFs store. They visited the store once and

⁴⁷ Ishiguro, *Klara and the Sun*, 294.

⁴⁸ Ishiguro, *Klara and the Sun*, 85.

⁴⁹ Sako & Falcus, “Futurity, the Life Course”, 121.

⁵⁰ Ishiguro, *Klara and the Sun*, 13.

found themselves unsure of which AF to buy. Coming out of their indecisiveness, they promised the store manager they would return to the store after some weeks. Even their first visit to the store ignited in Klara a hope of being bought by Josie in days to come.⁵¹ Over a few weeks, as the mother and Josie did not return to the store to buy Klara, her desperation grew exponentially in anticipation of being bought by Josie.

Even a cursory look into the structure of the narrative of *Klara and The Sun* digs up the fact that even AFs feel that their success lies not in their sentient identity of being independently capable of responding to external situations and of exercising emotional intelligence, including observational power, but in being purchased and then employed by human friends for the gratification of humans' emotional needs, friendly support, and pragmatic guidance. Notwithstanding her sentient self, Klara depends upon humans for her inner sense of completion and self-worth. In light of this propensity of the humanoid, it is worth outlining briefly how the fifth industrial revolution uses "modern cutting-edge technologies, namely AI, IoT, big data, cloud computing, Blockchain, Digital twins, edge computing, collaborative robots, and 6G, and leverages human creativity and intelligence."⁵² In the narrative space of Ishiguro, many characters are placed and programmed to typify this zeitgeist of the fifth industrial revolution. In so

many ways, humans and those who favor automating industrial society with robotics, AI, IoT, and IoI—against which AFs such as Klara could affirm their sentient identity—explore their inherent potential for observational power exceeding that of humans, tap into their sprawling emotional intelligence, and assert their belief in truth.

If a machine builds its self-consciousness and identity in relation to humans, how do humans view themselves in the wake of virulently growing automation at which humans have connived voluntarily or by force? Do humans feel dethroned from their position of human exceptionalism? It is reasonable to raise these questions when reflecting on how human characters in the novel posit themselves vis-à-vis automation and the performances of AFs and robots. Ostensibly enough, human characters cannot handle so easily the fate of having been left in the lurch of automation forever; they appear slow to make use of the skeptical bent of their minds, with their existential conditions beset from all sides not only with immediate affordances and advantages of automation, accruing to those who rush to welcome cutting-edge tools and technology.⁵³

Let's take the mother to argue in the context of Ishiguro's narrative. She hoped against hope and did what she could to help her ailing daughter, Josie, get back to vigorous health. When the mother's

⁵¹ Ishiguro, *Klara and the Sun*, 11.

⁵² Humayun, "Industrial Revolution 5.0", 1.

⁵³ Dayal, "Artificial Flesh", 253.

endeavor to get her daughter to recover ignited no glimmer of hope, she ultimately decided that having at least a portrait of Josie in her home would be reasonable when Josie dies, but Mr. Capaldi thinks otherwise and is bent on capitalizing on this moment. Mr. Capaldi deviously tried to hack and hoard Josie's sensory, neural, psychic, cellular, and bio-physiological data while making her portrait to craft an excellent AF out of Josie.⁵⁴ In the same vein, Rick also found himself at loggerheads with automation, but tried to redefine himself in a new way by moving forward with some drone science projects. Ironically enough, the divided young generation with the labels 'lifted kids' and 'unlifted kids' did their level best in the context of defining themselves in relation to Atlass Brookings.⁵⁵ If rightly unpacked and understood, Atlass Brookings emblemizes the pinnacle of innovation—possibly an institutionalized manifestation of where the humans' relentless drive for innovation, invention, and discovery could reach.

If Atlas Brookings is viewed as the alterity, it won't be an exaggeration to contend that many lifted and unlifted kids are hard-pressed to define their identities and selves in relation to this institution. Those unlifted kids—left behind in the race to join Atlas Brookings because they have no enhanced genetic structural backup—seem to opt for online classes from their virtual teachers. More broadly, the case in point is Josie, whom her online professor

coached to prepare her for college. The same is true in the case of Rick, who, out of curiosity, cultivated his sustained interest in drone science and robotics, of which none of his friends and relatives spoke appreciatively. As a result, Rick was having a hard time surviving their condescending attitude toward him. In one way, it was a matter of tacit stigma for not being super bright enough to hack the inherent superpower of human genes through the application of CASPR-CAS9.

Science versus Nature

Ishiguro is immensely popular for his compelling and controversial treatment of how scientific breakthroughs and technological innovations must be put at the service of human beings. To this end, he already had a handful of narratives that darkly reminded us of how a few people can “abuse innovative insights, ideas, and breakthroughs to their advantage.”⁵⁶ No novel is more successful in accomplishing this normative goal than his thought-provoking, controversial, and widely discussed novel, *Never Let Me Go*. In light of the much-discussed binary opposition between science and nature, Ishiguro proposes a new perspective on ensuing debates and discussions on the subject of the science versus nature dichotomy. Realistically, the novelist not only challenges the long-held assumption that science exists to “conquer nature for the more significant

⁵⁴ Ishiguro, *Klara and the Sun*, 207.

⁵⁵ Ishiguro, *Klara and the Sun*, 279.

⁵⁶ Griffin, “Science and Cultural Imaginary”, 645.

benefit of human beings.”⁵⁷ Since this assumption favors an aggressive ideology of exploiting nature to the extent of putting the integrity and harmony of human existence at risk, Ishiguro always frowns upon this aggressive ideology. In the structure of this traditional thinking on the binary between science and nature, “science and its practitioners come under the rubric of aggressive and colonial agents that treat nature as a vulnerable and fragile entity.”⁵⁸ This binary dominating our structuralist thought was picked up by Ishiguro in the novel under discussion, and then innovatively hammered out these binary differentials.

This line of playing hide-and-seek with binaries, germane to Ishiguro’s narrative construction, is further elaborated by the novel’s very title, which works as a metonymic reference to the dichotomy between science and nature. To concentrate on a character who epitomizes the roaring spirit of innovation, Klara is an enviable product of the ongoing drive toward innovation in robotic science and AI—a practice growing in popularity that engineers and automates the fifth industrial revolution. It goes without saying that Klara embodies “the sublime and the superlative that the science of artificial intelligence and robotics is proud to come up with.”⁵⁹ Already armed with sentient faculty in her neural network, she tended to surpass humans in observational power, emotional intelligence, and receptivity to context-

specific stimuli from the objective world. As an embodiment of science, she hardly has an aggressive attitude toward nature, as represented in the novel by the sun. Solar energies power Klara. And she quickly detected a pattern the falling sunlight created on the surface, walls, and anywhere.

Let’s tweak the analytics a bit. While in the store, Klara saw an old man and a dog by the side of a large building right across from the store she was in. Thereafter, she thought both the dog and the man were dead, but to her surprise, they awoke to life the next day, which was sunny, warm, and exhilarating.⁶⁰ Driven by her naïve and natural curiosity, Klara conjectured that life’s restoration stemmed from the bountiful energies emanating from the sun.

In acknowledging the sun’s role as a source of nourishment, it is imperative not to readily accept Klara’s interpretation without scrutiny. One more example might reinforce the claim. Prompted by Josie’s immature and exuberant assertion that Mr. McBain’s Barn housed the sun, Klara visited the barn and the surroundings around it. These impressions coalesced to foster Klara’s belief in the potential of the sun’s energies to alleviate Josie’s affliction. Over time, her faith took root so deep that it was unwavering. As a result, Klara perceived environmental pollution as an impediment to harnessing the rejuvenating

⁵⁷ Bacon, *The New Organon*, 3.

⁵⁸ Seth, “Putting Knowledge, 373.

⁵⁹ Singh, “AI & Digital Sentience”, 232.

⁶⁰ Ishiguro, *Klara and the Sun*, 19.

sunlight, culminating in her attempted dismantling of the Cootings machine.

The depiction of the sun within the narrative eschews a portrayal of the sun as an entity to be aggressively conquered or ruthlessly exploited, thus avoiding a dichotomous paradigm of science versus nature. Initially, the narrative accentuates the conspicuous dichotomy between assertive scientific pursuits and the susceptibility of nature. However, as the narrative progresses, this schism diminishes, paving the way for an emergent concept of unity that swiftly dissipates, replaced by a new instance of binary opposition that supersedes the preceding dichotomy, perpetuating the cycle of binary manifestations within the narrative.

This underlying game played under the banner of the novel's structurality, needs a backup from an argument rooted in the text. At the peak of this irreversible momentum, the sun heeds Klara's call—that verges on being a prayer—for Josie's recovery. Klara operates on solar power; in one sense, dismantling the Cootings machine is an act of supplication to and preparation for deserving the grace of the sun, and the sun's nourishing energies gave new life to Josie⁶¹. In this cycle of relationality, binarism constricts and dilates, augmenting the arc and acceleration of the narrative's structurality. None of these considerations is as effective and exemplary as the shifting public perception of Klara—one of the "exemplary and exceptional products of the science of

robotics."⁶² The social milieu in which Klara found herself was characterized by a pervasive climate of coldness, criticism, and, at times, contempt, as exemplified by Mr. Capaldi's evident antipathy towards artificial enhancement technologies. However, Klara's altruistic devotion to preserving the life of her terminally ill friend Josie serves as an edifying exemplar of how scientific knowledge and capabilities might be employed towards humane ends that transcend reductive moral frameworks. Her selfless actions to aid Josie embody an almost parabolic narrative that persuasively redeems the promise of science to ameliorate suffering when placed at the disposal of compassionate intentions and ethical discernment.

This redemptive arc points toward the conclusion that any promulgation of capacities beyond the natural human sphere should be circumscribed by conscientious attention to unforeseen detrimental consequences. The youths' incautious genetic self-transformation highlights the potential pitfalls of ambitious enhancement projects pursued without due moral examination. The tragic case of Sal stands as a poignant symbol of how the quest for superhuman talents contains within it the seeds of profound loss and adversity for the unprepared or unlucky.

To cut the entire matter short, the narrative architecture within *Klara and the Sun* achieves its resolution, coherence, and fulfillment by meticulously exploring pivotal

⁶¹ Ishiguro, *Klara and the Sun*, 279.

⁶² Kontoura, "The Relationship", 1.

instances embodying binary oppositions. The thematic pursuit of fostering a harmonious coexistence between AI and human intellect—facilitated through examining specific binary constructs—delineates a narrative that aligns favorably with structuralist discourse. These binary pairs, strategically arranged to underpin the narrative structure, impart a discourse rich in structuralist tenets, bearing messages imbued with a resolute contemporary ethos.

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