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Technical Narrators and the Possibilities of Cognitive Assemblages in Kazuo Ishiguro's *Klara and the Sun*

Narradores tecnológicos y las posibilidades del ensamblaje cognitivo en *Klara and the Sun* de Kazuo Ishiguro

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Abstract: This research aims to add to the critical discussions of Kazuo Ishiguro's novel *Klara and the Sun* by bridging the disciplines of narratology and cognitive science. First, the article traces the presumed voicing of Klara's robotic cognitive processes, connecting her machine vision to the idea of a non-anthropocentric self and the fictional possibilities of nonhuman un/consciousness. Secondly, it looks at the cognitive-affective interdependencies in the assemblage that artificial intelligences create with the humans in the novel. Drawing on N. Katherine Hayles's idea of cognitive assemblages and Marco Caracciolo's theorisation of *strange* narrators, this research considers how Ishiguro's novel invites readers to navigate interpretive tensions when engaging with nonhuman perspectives, while exploring whether the text participates in a paradigm shift from a human-centred cognitive subject towards a relational configuration that bridges the ontological divide between human and nonhuman "minds."
Keywords: Cognitive literary studies; first-person narrator; cognitive assemblage; affect; Kazuo Ishiguro.
Summary: Introduction. Cognition beyond the Human: Assemblages, Affects, and Narratology. Assembling a Technical Self in *Klara and the Sun*. Conclusion.

Resumen: Esta investigación, que pretende tender un puente entre las disciplinas de los estudios de narratología y las ciencias cognitivas, tiene como objetivo contribuir a los debates críticos sobre la novela *Klara and the Sun* de Kazuo Ishiguro. En primer lugar, el artículo se centra en el análisis de la voz narrativa y en las capacidades cognitivas de la robot Klara, conectando su visión artificial

con la idea de un ser no-antropocéntrico, así como en las posibilidades ficcionales de la (in)consciencia no-humana. En segundo lugar, este estudio examina las interdependencias cognitivo-afectivas en el ensamblaje que las inteligencias artificiales crean con los humanos en la novela. Utilizando la idea de "ensamblaje cognitivo" de N. Katherine Hayles y la teorización de Marco Caracciolo sobre "narradores extraños", esta investigación considera cómo la novela de Ishiguro invita a los lectores a navegar tensiones interpretativas al adentrarse en perspectivas no-humanas, mientras explora cómo esta participa del cambio de paradigma desde un sujeto cognitivo centrado en el ser humano hacia una configuración relacional que supera la tradicional división ontológica entre "mentes" humanas y no-humanas.
Palabras clave: Estudios literarios cognitivos; narrador en primera persona; ensamblaje cognitivo; afecto; Kazuo Ishiguro

INTRODUCTION

Kazuo Ishiguro's novel *Klara and the Sun*, published in 2021, is an instance of an acclaimed text by the Nobel laureate which features a remote-to-reality setting, much in the same way as he did in previous works such as *Never Let Me Go* or *The Buried Giant*. Drawing upon the inherent structure and narrative techniques of speculative fiction and echoing in some ways what he achieved in *Never Let Me Go*, this novel covers a story narrated by a robotic Artificial Intelligence named Klara, which, much like Kathy H., "combines astute observation with deep naivete about the world" (Hayles, "Subversion" 267). Staying true to Ishiguro's "preferred narrative style," recognisable by his recurrent use of a first-person account with limited knowledge and a sense of outsiderness (Sen 91), *Klara and the Sun* (Ishiguro) is carefully built upon the artifice of Klara's retrospective narration. While this technique is also emblematic of Ishiguro's broader literary oeuvre, the novel adopts a singular resonance due to the nature of Klara's memory. In contrast to human memory, which is emotionally suffused and prone to distortion, Klara's recollection of the events is built upon robotic data retrieval, rendering it ostensibly more reliable, even if it too might be in part emotional—a process embedded as part of the very aesthetic fabric of the text. This circumstantial narrative dimension acquires additional complexity through the gradual technical deterioration, or "slow fade" (Ishiguro 329) that Klara begins to experience after her abandonment at the Yard once her "useful" life as a companion to Josie Arthur, an ailing child, has been completed. Although Klara repeatedly reasserts her sense of orientation and accuracy, the

narration gestures towards a potential instability that derives, not from distortion typical of human memory, but from indeterminacies of limited artificial recollection mediated by algorithmic processes, which invites reflection on the reliability of Klara's accounts in alternative ways (Xiao 357).

With a subtly described technologically advanced future as background, *Klara and the Sun* (Ishiguro) unfolds through a first-person narration that conveys what Marco Caracciolo terms a "strange" perspective or worldview (28). Providing an exploration of the algorithmic cognition of a humanoid Artificial Intelligence attempting to make sense of the world, the novel thus turns a central figure of genre fiction, namely "the innocent android" (Power), into a fully-fledged, complex, and cognitively nuanced character. Ishiguro's novel engages in this sense with the longstanding epistemological question—captured by Thomas Nagel in his renowned "What Is It Like to Be a Bat?"—regarding the (im)possibility, and even (im)practicality, of truly accessing the subjective textures of nonhuman experiences, a concern that sits at the intersection of narrative theory and cognitive science.

The phenomenological enquiry into Klara's nonhuman experience can be situated within a "standardised" mode of narrative unreliability, which invites readers to critically examine the constraints of an anthropomorphic narrator's "mind" and to juxtapose it to their own interpretive frameworks (Caracciolo 29). This dynamic engenders a sense of personal involvement and intimacy and positions the novel as an example of what Robert L. McLaughlin identifies as "post-postmodernist" fiction (212)—a literary mode that marks a shift away from the metafictional detachment of certain canonical postmodernist works (Timmer 360).[1] Consequently, the reader is situated in an intimate, yet

[1] Robert L. McLaughlin characterises post-postmodernist fiction as departing from the overtly self-referential and ontologically disruptive strategies of postmodernism, shifting instead toward narratives that preserve the suspension of disbelief while interrogating the mediated and constructed nature of reality (218–19). Post-postmodern narrators, unlike their postmodern counterparts, tend to be "media savvy" yet refrain from dismantling their own narrative frames, directing attention toward the mutable, contingent nature of what their characters perceive as real (McLaughlin 218). This evolution in narrative practice corresponds to what Marco Caracciolo identifies as a "more standard variety" of narrative unreliability in post-1990 fiction (29): less invested in metafictional play than in cultivating an intimate, character-centred illusion that fosters psychological engagement, affective identification, and, at times, quasi-therapeutic modes of reading.

cognitively dissonant space, as confronting the robotic, nonhuman experiences of Klara elicits both empathy and critical distance. Trying to understand the varied ways in which literature navigates those cognitive gaps and offers insights into other ways "of being," scholars in cognitive narratology generally explore how literary texts might simultaneously circumscribe and enable cognitive exploration, especially in the case of texts featuring nonhuman cognisers as main focalisers or as narrators.

Expectedly, and similar to other robot narratives, *Klara and the Sun* (Ishiguro) has awakened extensive critical interest among scholars who, attracted by the possibilities presented by Klara's inner and partial robotic point of view, have analysed the novel as a prime example of a text that works to dissolve the certainty of the anthropocentric (cognitive) subject. This article aims to add to this strand of scholarly research and to the critical discussions where the narratological aspect of Klara's autodiegetic accounts are examined, situating its analysis alongside recent research such as Guanghui Shang's work on mind-reading, Tyne D. Sumner's exploration of machine vision, face recognition, and affect, and N. Katherine Hayles's analysis of metaphoric vision and the human aura ("Subversion"). At the same time, it attempts to extend these discussions by considering how the novel represents the systemic effects of technological innovation, particularly observing the ways in which such developments reconfigure the lives of the human characters in the speculative setting envisioned by Ishiguro.

In my reading of the text, grounded in the recognition that we can never be bats, I aim to achieve two things. First, it is my aim to trace the narrative representation of Klara's cognitive abilities, considering how her perceptive faculties and machine learning abilities give rise to a form of subjectivity that is decentred from humanist frameworks. Although Klara's ontological status as an Artificial Friend (AF) precludes claims about consciousness in reality, Ishiguro carefully constructs a fictional rendering of artificial subjectivity that simulates a sense of what Antonio Damasio has called "autobiographical self" (*Self* 203–07).[2] This

[2] The prospect of artificial consciousness remains a highly contested theoretical issue across contemporary artificial intelligence research, philosophy of mind, and cognitive and neuroscience. Recent scholarship emphasises both conceptual and empirical obstacles, with neuroscientific analyses (Aru et al.) and theoretical reviews (Chella) highlighting the field's unresolved challenges. State-of-the-art assessments by David J. Chalmers and Butlin et al. conclude that current large language models, including OpenAI's ChatGPT, lack the key properties (such as embodiment, recurrent processing,

narratively sustained selfhood offers the structural and affective coherence necessary for a first-person narration, allowing readers to engage with the robotic perspective as affectively and intelligible resonant. In doing so, the novel expands the imaginative space for representing the fictional possibilities of nonhuman cognition. Secondly, I attempt to examine the social and political affective interferences that shape the "cognitive assemblage" (Hayles, *Unthought* 2) that artificial and biological cognitions jointly create. Thus, this research aims to illustrate how Ishiguro's novel can be read as an instance of a contemporary text that reconfigures the anthropocentric model of agency, caring, and control. By narratively enacting a hybrid cognitive ecology, *Klara and the Sun* (Ishiguro) further gestures towards the capacity of literature to bridge and renegotiate the ontological divide between human and nonhuman "minds."

1. Cognition beyond the Human: Assemblages, Affects, and Narratology

The once accepted idea that cognition, formerly "modelled via cognitive processes like attention, perception and memory" (Sampson, "Nonconscious Affect" 295), was constituted in its totality by higher-order consciousness and rational thinking has been gradually contested in what can be seen as a twofold critique. First, as observed by Tony D. Sampson, it has been supplanted by a new kind of neurological relation, one that sees consciousness as just the perceptible tip of an underlying, and more intricate set of cognitive processes embedded within the somatic dimension of human cognitive architecture ("Nonconscious Affect" 295, 297).[3] Second, an expanded view of cognition has been especially

self-representation, and unified agency) identified by leading consciousness theories as prerequisites for conscious experience.

[3] Cognitive sciences have undergone a fundamental reorientation as they have shifted away from models privileging higher consciousness and abstract, disembodied reasoning, towards the 4E framework (embodied, embedded, enactive, extended), which locates cognition in dynamic brain-body-world interactions (Carney 1–2). Rejecting the representationalist view of cognition as symbolic information processing (Fodor and Pylyshyn), 4E theorists argue that internal representations are inseparable from bodily actions and motor programmes. This reframing of cognition aligns with other trends that de-centre the human-exclusive, brain-specific model of mind, such as research into what has been called "minimal cognition" (Lyon) or "distributed cognition" (Hutchins).

propelled by advances in artificial intelligence, animal cognition, and cognitive biology, which have dramatically motivated a reorientation in the research focus towards a broader spectrum of cognitive capacities in the nonhuman world—ranging from the species-specific modalities of nonhuman animal cognition (Birch et al. 789) to the sensory attunement and signalling mechanisms of plants (Segundo-Ortin and Calvo 14).

The pressing urgency to understand cognition beyond the conscious rational mind, alongside the growing appreciation that humans might not be "that" special (Rossini 153) in cognitive terms, are two of the scholarly preoccupations that have infiltrated major debates in the humanities and social sciences' agendas. N. Katherine Hayles's *Unthought: The Power of the Cognitive Nonconscious*, which very notably stands as a crucial contribution to this shift, aims to reveal the transformative potential of an inclusive understanding of cognition by focusing on human interactions with complex technical systems. Her revision of cognition entails the proposal that, below the threshold of awareness, other neurological brain processes operate in humans' cognition to perform functions essential to consciousness, acting, for instance, as a filter to avoid its overwhelmedness or even its collapse from sensorial stimuli (Hayles, *Unthought* 50). These foundational cognitive processes are what she calls, drawing on the work of neurobiologist Antonio Damasio, "the cognitive nonconscious" (Hayles, *Unthought* 11).

Besides building the foundation for human higher consciousness to emerge, which gives rise to the "autobiographical self" essential to make sense of the verbal narratives that play in our heads (Damasio, *Self* 203–07), nonconscious cognition is, according to Hayles, also pervasive in complex technical systems, such as computational media. This form of technology, described as "cognitive" because of its strong evolutionary potential, exhibits what Richard Grusin first called "technological unconscious" (72). Self-driving cars, automated trading algorithms, or autonomous drones and other surveillance technologies are examples of cognitive technologies that demonstrate nonconscious cognitive capabilities, as they can "process information faster than consciousness, discern patterns and draw inferences" (Hayles, *Unthought* 11).[4] The

[4] Hayles conceptualises nonconscious cognition as a dynamic process by which an organism, or a technical system, discerns and interprets patterns within its context prior to, and independent from, consciousness. In humans, she defines it as "a level of neuronal processing inaccessible to the modes of awareness but nevertheless performing functions

emergence of these technical cognitions therefore signifies the "exteriorization of cognitive abilities, once resident only in biological organisms, into the world" (Hayles, *Unthought* 11), and their design supports human conscious processes, which range from everyday activities like driving to serious political and economic strategies like making war.

Considering the interplay between consciousness/unconsciousness (the modes of awareness) and the cognitive nonconscious, Hayles proposes her updated and more encompassing definition of cognition as "a process that interprets information within contexts that connect it with meaning" (*Unthought* 22). As she explains, this formulation treats cognition not as a static attribute, like intelligence is sometimes considered to be, but as "a dynamic unfolding within an environment" that requires contextual embeddedness, embodiment, and interpretive choice among alternatives—whether in a tree orienting its leaves towards the sun, a technical system executing operations, or a human brain (Hayles, *Unthought* 25). The emphasis on meaning-making, process, and context explicitly avoids the restriction of cognition to human mental life dominating conventional accounts, which describe cognition as "the use of conscious mental processes" (*Cambridge Dictionary*), "a function of consciousness" (James 13), or as "knowledge and understanding . . . developed in the mind" (*Oxford Learner's Dictionary*). Contrary to these consciousness-specific and anthropocentric takes, Hayles's definition broadens cognition by emphasising that situated meaning-making processes are operative in both biological and technical systems.

Acknowledging the cognitive agency of other biological and technical nonhumans is merely the starting point. The multilayered cognitive interactions and interpenetrations between different human and nonhuman "cognizers" (Hayles, *Unthought* 30) in complex networks have been

essential to consciousness" (Hayles, *Unthought* 9), supported by neuroscientific findings such as the integration of somatic markers into coherent body representations (Damasio, *The Feeling*), the synthesis of sensory inputs across time and space (Eagleman), rapid information processing beyond conscious capacity (Dehaene), detection of complex patterns beyond conscious discernment (Kouider and Dehaene), and inference-making that guides behaviour and prioritisation (Lewicki et al.). Crucially, however, Hayles extends this notion beyond the human to encompass all living organisms and computational media, emphasising that any system (whether biological or technical) that can process information, respond adaptively to environmental cues, and engage in pattern recognition operates within the domain of nonconscious cognition.

theorised into what Hayles has termed a "cognitive assemblage" (*Unthought* 115). Invoking Bruno Latour as well as Gilles Deleuze and Félix Guattari's systemic theory and practice of assemblages, Hayles uses the term "cognitive assemblage" to connote how agency and power in technologically developed societies become distributed in varied and complex ways. This point is particularly significant since seeing cognitive interactions as assemblages shifts the focus from isolated human individuals to the distributed agency that emerges from the interplay between human and technical cognitions. Such assemblages foreground ethical considerations by acknowledging not only that technical mediators have agential powers but also by signalling how responsibilities become decentralised and supersede the sole focus on individual actors (Hayles, *Unthought* 119).

As they gain or lose parts and undergo volumetric transformations, cognitive assemblages have "cumulative (and expanding) effects that significantly affect human social behaviours" (Hayles, *Unthought* 35), morphing "the context and conditions" where they operate, and connoting how any social formation is always a collection of fluid material and immaterial exchanges with consequential effects (Hayles, *Unthought* 120). It is here that affective forces within cognitive assemblages, as used first by Spinoza and then by Deleuze and Guattari to refer to the ability of bodies to form assemblages with other bodies (Protevi 68), reach beyond human responses "to the postulated responses of technical artifacts" (Hayles, *Unthought* 178). Significantly, the paradigm of the cognitive nonconscious and cognitive assemblages also maps "a more general and influential turn to affect" (Sampson, "Nonconscious Affect" 296), where nonconscious cognition, acting as a mediator between bodily responses, or somatic markers (Damasio, *The Feeling* 187), and the modes of awareness, is strongly linked to affective experiences. Within this theoretical context, assemblages have the ability to show how these affects circulate from the "molecular to the molar"—to use Deleuze and Guattari's analogy (213)—creating dynamic systems made of technical and human cognitions, as well as material processes, and how the diverse individual information and affective flows and exchanges are simultaneously infused and deeply intertwined with "social-technological-cultural-economic practices" (Hayles, *Unthought* 178).

In light of this, a second fundamental question arises in this research: How does literature, especially contemporary fiction, contribute to the understanding of the potentials of nonhuman cognition and of the specific

social, political, and historical dynamics of cognitive assemblages? One of the most widely employed narrative strategies that aligns with posthumanist frameworks involves granting other-than-human entities an imaginary subjective life and a distinctive narrative voice. Nonhuman narratives, which broadly refer to "the representation of [fictional] events with nonhuman entities" (B. Shang 59), have been considered an essential part of the so-called "nonhuman turn" in the social sciences of the twenty-first century (Colombino and Childs 355). Within such narratives, animate or inanimate nonhuman entities, which can be as varied as "an animal, a mythical entity, an inanimate object, a machine, a corpse, [or] a sperm" (Alber et al. 2), are not relegated as part of the setting but actively participate in the narrative, functioning either as characters or as the tellers of the story (B. Shang 63).

The phenomenon of nonhuman storytelling, from ancient Greek myths to contemporary science fiction texts, underscores the sustained interest of fiction writers in delving into perspectives that diverge from human cognitive and phenomenological experiences, which has prompted narratology studies to keep up with diverse conceptual frameworks to critically and productively read these texts beyond biased, cognitive anthropocentrism and anthropomorphism. As Hayles points out, however, these narrations—since they emerge from humans' conscious/unconscious states—do not reflect the actual cognitive life or the empirical reality of other nonhuman modes of awareness, but rather represent their "restaging within the theater of consciousness" (*Unthought* 211). Novels such as Matt Haig's *The Humans*, narrated by a nonhuman being from an alien species sent to Earth, or Sue Burke's *Semiosis*, partly recounted from the perspective of a nonhuman bamboo plant, move beyond the narrative confines of realism by imagining through a first-person perspective the cognitive experiences of nonhumans that, in one way or another, struggle to come to terms with the human-centred context that surrounds them.

Given that these fictional works offer a first-person account that breaks with the mimetic contract characteristic of realist fiction, the interpretive strategies demanded by them necessarily become more nuanced, summoning an experiential negotiation between readers and texts. In this context, Marco Caracciolo's analytical framework developed in his *Strange Narrators in Contemporary Fiction* provides a rigorous lens through which to examine the narrative tension elicited by nonhuman first-person narrators. According to him, the complexity of some of these novels lies in the distinctive interpretive strategies they elicit. Autodiegetic

narrations, he writes, call for strategies that are "not different—at least not *completely* different—from those we use to make sense of real people's life stories" (Caracciolo xiv). In engaging with these texts, readers are encouraged to "build a mental model of the narrator's fictional, but still narratively woven, self" (xiv), a process that underpins what Caracciolo calls "character-centred illusion," where readers experience the sensation of accessing a character's inner mental life as if engaging with a conscious being, despite the character's fictional status (37).

At times, and more acutely when the narrative is conveyed through a nonhuman voice, readers experience "feelings of strangeness" that, according to Caracciolo, compel a complex pattern of oscillation between a perception of familiar continuity, as the narrator "speaks in a human voice [evoking] images of everyday interaction, conversation, even intimacy," and a marked sense of deviation, which occurs when "what readers hear from the character is at odds—sometimes subtly, sometimes dramatically—with what they would wish or expect to hear" (Caracciolo xv).[5] This narrative tension, or "world disruption" (Herman, *Basic Elements* 133), emerges when readers are given access to the mental life of a first-person narrator whose cognitive framework differs in some aspect(s) from their own folk-psychological assumptions—the interpretive framework through which individuals make sense of other's minds and behaviours—creating a sense of "dissonance" that calls for two conflicting reception strategies (Caracciolo 35). On the one hand, readers are invited to "try on" the narrator's perspective "through narrative empathy," while, on the other hand, they resist that perspective because of the cognitive strangeness it elicits (Caracciolo 35). In such narrative circumstances, Caracciolo adapts Viktor Shklovsky's well-known term of

[5] Unlike many narratological approaches that locate the source of interpretive challenge primarily in textual features, Marco Caracciolo situates "feelings of strangeness" at the centre of his framework, explicitly treating them as reader-centred phenomena. These feelings, he argues, arise when readers encounter psychologically challenging first-person narrators and attempt to reconstruct their "deviant webs of selfhood" (Caracciolo xv). Rather than defining these feelings through specific shared traits, Caracciolo identifies an underlying *psychological structure* that is simultaneously situational, phenomenological, and cognitive. It is situational in that it emerges from readers' encounters that resemble everyday intersubjectivity, yet deviate from it in significant ways; phenomenological because it generates a lived tension between the reader's own self and the self-attributed to the narrator; and cognitive because it entails a "paradoxical interplay of empathetic closeness to the narrator and distanced incomprehension, or rejection, of his or her attitudes" (Caracciolo xvi).

"defamiliarization," reconfiguring it as an experiential and reader-centred effect that emerges from this psychological and experiential dynamic. In this reformulation, defamiliarization generates a "gray area" where readers vacillate between resisting the narrator's worldview, through a strategy Tamar Szabo Gendler calls "imaginative resistance" (55), and tentatively adopting it in acts of "empathetic perspective taking" (Caracciolo 48–49). Ultimately, and more broadly, this defamiliarization so characteristic of nonhuman first-person narratives is inscribed in a dialectical tension between the maintenance of the character-centred illusion and the recognition of the character's or narrator's strangeness (Caracciolo 49). As such, literary figurations of nonhuman cognition function not just as explorations of alternative, nonhuman lifeworlds, but also as critical renderings that highlight the "the overlap, and sometimes the clash" between those imaginary worlds and human experiences (Caracciolo 141).

2. ASSEMBLING A TECHNICAL SELF IN *KLARA AND THE SUN*

Transcending the mimetic presuppositions of realist narratives and embracing the negotiation between human readers and the nonhuman experientiality conveyed in the narrative text (Herman and Vervaeck 112), *Klara and the Sun* is Ishiguro's literary experiment of a story engendered by algorithmic code and electronic data rather than by human phenomenology. Considering this idea, in what follows, I propose an examination of Ishiguro's novel as a text that, through the speculative representation of a first-person technical cognition, exploits the tension between imaginative resistance and empathetic perspective taking: first, readers are simultaneously invited to access Klara's robotic mind and her algorithmic way of experiencing the world while they confront the cognitive strangeness embedded in her programming. Klara's nonhuman perspective guides the reader's attention towards the artifice of her subjective self, exposing a fictional technical awareness that diverges from the human anthropocentric tendency—signalled by Hayles (*Unthought* 43)—to organise cognitive experience around a reified sense of self prone to "imperialistic" inclinations. Second, the human-machine relationship between Klara and Josie, which I will approach here as an example of a cognitive assemblage, illustrates the evolutionary processes through which nonhuman cognition and human experientiality enter into a relation of mutual dependence. This relationship simultaneously exposes both to forms of reciprocal vulnerability: humans, increasingly dependent on

technological systems, are compelled to relinquish certain aspects of control, while AI technologies such as Klara, far from assuming that control, remain contingent upon human acceptance and are susceptible to obsolescence or rejection.

2.1 An Artificial Friend with a Nonhuman Self

The opening section of *Klara and the Sun* (Ishiguro) is the first and most straightforward indicator that readers will be bound by partial views, as Klara herself begins her narration stationed at the remote corner of a store. With limited access to both the sun's pattern as source of energy and the chance to be chosen by a lifted [6] child to become their companion, Klara, as well as her fellow Artificial Friends (AFs), long for the moment of being displayed at the shop window. However, Klara's interest in being moved is mainly motivated by her inherent desire to be able to "see more of the outside—and to see it in all its detail" (Ishiguro 9). After a few pages, readers learn that Klara's fictional *umwelt*—the unique perceptual way in which she experiences the world—is mostly determined by her advanced machine vision and her "extraordinary observational ability" (Ishiguro 51). As a robot designed to take care and give company to human children, Klara's observations are mainly intended for the gathering and parsing of visual information, which is, more particularly, targeted towards the recognition of human facial and bodily emotional states. Notably, Ishiguro includes as part of Klara's nonhuman storytelling the manner in which her constant decoding of visual input takes place as a result of her design following a computational model of the mind. In this sense, the whole description of the mechanics of computational image-processing are included in her self-narration. This formal technique frames Klara's cognitive processes as "non-standard" when measured against anthropocentric expectations of consciousness and conventional literary

[6] Kazuo Ishiguro uses the term "lifted" to describe the genetic enhancement procedure that some children in the novel undergo to increase their cognitive abilities and improve their future educational and social prospects. The procedure itself is never explicitly detailed, leaving readers uncertain about its precise nature. What is clear, however, is that it enhances certain human cognitive capacities and has had a profound impact on society—for example, children no longer attend traditional schools but are instead educated at home. At the same time, the "lifting" process is depicted as controversial and risky, as it can result in serious health complications or even death.

depictions of interiority, contributing in this way to the construction of cognitive difference.

Klara becomes then a "narrator-presenter" (Hallet 150), demonstrating a metacognitive awareness of the perceptual mechanisms underpinning her computational visual processing—an awareness that contrasts with the general human unawareness of the cognitive operations underlying their own image processing. The explicit incorporation of how these visual elements are perceived contribute to create a "multimodal mindstyle" (Ghosal 40) that governs the representation of Klara's cognitive strangeness. To transpose her deciphering and cataloguing of the visual stimuli, Ishiguro has devised a simple yet potent defamiliarizing narrative technique. When Klara encounters a complex visual scene, her vision adapts to a rudimentary breaking down of the image components, transforming her visual perceptions into boxes that give her cues about physical dimensions, facial expressions, and gestural hints. Compelled to renounce the accustomed three-dimensional way of confronting these situations, readers unequivocally become aware of the strangeness in Klara's perspective and are directed to abandon "automatized heuristics . . . to find new pathways for thinking and perceiving" the fragmented visual description (Caracciolo 48–49). A prime example of this defamiliarizing effect is seen at the beginning of the novel:

> But my attention was drawn to the three center boxes, at that moment containing aspects of Manager in the act of turning towards us. In one box she was visible only from her waist to the upper part of her neck, while the box immediately beside it was almost entirely taken up by her eyes. The eye closest to us was much larger than the other, but both were filled with kindness and sadness. And yet a third box showed a part of her jaw and most of her mouth, and I detected there anger and frustration. Then she had turned fully and was coming towards us, and the store became once more a single picture. (Ishiguro 31)

Klara's fractal-geometrical optics readjusts the boundaries of conventional realism producing what Caracciolo terms "cognitive dissonance" (35). In this case, dissonance is summoned because Klara's visual description calls for two "dissonant" reception strategies: readers, on the one hand, experience cognitive strangeness and consequently resist Klara's perspective because of the "failure of their folk-psychological capacities" —that is, their difficulty in making sense of her visual experiences through

their usual interpretive tools that correspond to human patterns (Caracciolo 35); on the other hand, readers are invited to temporarily experience Klara's perspective through narrative empathy, as she recounts a scene recognisable within human experiential domains. In this oscillation, which is what Caracciolo calls "defamiliarization," readers enter a "gray area" where they experience a "challenge of their established (and in this sense 'automatic') response patterns" (48).

This narrative strategy is significant for both content and form. First, by granting a detailed description of how machine vision synthesises data, readers are compelled to distance themselves from their humanist comfort zone (Bernaerts et al. 69) and required to lean on the fact that Klara's visual engagement with the world diverges from humans' sensorial experiences. Her perceptual apparatus is designed for the targeted parsing and gathering of specific cues, particularly patterns in human emotional expression, tasks that human vision is certainly capable of performing, yet is neither evolutionarily specialised nor consciously attuned in the same deliberate way. In this respect, Ishiguro imagines a nonhuman subjective phenomenology that differs from humans' everyday embodied experiences with visual input. Second, readers are prone to believe that Klara's efforts to blend and assemble the contents from the different boxes showcases how she is not only cataloguing information but also trying to grant some interpretive meaning, which suggests a sort of "contemplative mind at work" (Sumner 8). One could even consider Klara's machine vision narration as more than a stylistic choice; it can also be interpreted as acting metaphorically, as this fragmented perceptual mode, while limited, ultimately emulates the inherently multifaceted nature of emotional interiority, both in humans and, as the novel suggests, in nonhuman entities.

Even if Klara's visual processing might signal towards an advanced cognition where computational interpretation records reality "as it is," her capacity to identify and interpret human emotional displays proves to be as subjective, and at times even more distorted than that of a human observer. As Hayles points out, current cognitive technologies similar to the fictional Klara "interpret ambiguous or conflicting information to arrive at conclusions that rarely if ever are completely certain" (*Unthought* 24). These automated technical devices are embedded in recursive loops that connect a variety of sensors with lower and higher-level interpretive systems, which then synthesise complex information to draw inferences or to perform actions in the world (Sarker 2). In this sense, Klara's synthetic

interpretation of human emotions differs fundamentally from humans', as it is dependent on coded parameters, or labelled datasets, that are reinforced through sensory observation, generalised in patterns, and used to make predictions (Sarker 1).

In the case of the "emotional-machine" Klara embodies (Chen and Liang 189), once these emotional correlative datasets have been defined, such as "when a person cries, that person is sad," the Artificial Friend has major difficulties interpreting more nuanced expressions of human emotional reactions. A particularly representative moment takes place when, still at the store, Klara struggles to comprehend why some passersby, which she classifies in a sort of categorical abstraction as "Coffee Cup Lady and Raincoat Man" (Ishiguro 26), display signs of happiness while they also seem upset. Only through the Manager's guidance can she understand that "[s]ometimes . . . people feel a pain alongside their happiness" (Ishiguro 25), something that brings awareness towards the utter complexity of the task of emotional data processing and cataloguing she has been assigned with. However, this challenge only awakens more curiosity in the Artificial Friend, who then tries to imagine and recreate how these conflicting emotional responses would feel, demonstrating not only her profound interest in understanding the complexity of human affect, but also her technical desire to amplify her own emotional repertoire. Klara's observational capacities are then not just her primary, and fundamental access to the world, but they also allow her to create her own "emotional interiority," which predictably creates a dynamic of "visual-thinking" (Shaw) in which her visual interpretations of her surroundings transform into a growing awareness of her own subjectivity. As she is purchased and taken to live with fourteen-year-old Josie Arthur, her mother Chrissie Arthur, and Melania Housekeeper, Klara's cognitive complexity deepens, but still, she sees her own robotic capacity for experiencing complex emotions as a skill learnt through observation—knowledge that "become[s] available" to her (Ishiguro 98)—rather than something more intimately and less self-consciously experienced.

Klara's struggle to identify the level of intricacy of her own emotional awareness becomes apparent in the section containing the trip to Morgan's Falls. During this trip, where Chrissie and Klara embark without Josie, Ishiguro subtly opens up another layer of Klara's fictional cognitive life: her own kind of technical unconsciousness. This effect is achieved through a heightened deployment of cognitive strangeness, where Ishiguro

deliberately reorients the reader's attention from the character-centred illusion back to the computational nature underlying Klara's fictional subjective experience. Her initially strange, machinic perspective becomes gradually more accessible over the course of the novel, presenting empathetic perspective taking as a nuanced phenomenon susceptible to gradations—which Jens Eder conceptualises through the metaphor of "being close to characters" (68). This progression relies mostly on readers' imaginative simulation of the emotional dimension of Klara's perspective, positioning her as an affective, emotional narrator. As a result, readers engage in a process of empathetic "identification" with her narrative voice (Gaut), which alleviates some of the initial cognitive tensions underlying their imaginative resistance provoked by early defamiliarizing sections, such as the depiction of Klara's box-like visual mechanics.[7]

Through this empathetic perspective taking, readers lean towards a character-centred illusion whereby continuous exposure to Klara's distinct naïve vocabulary, her child-like syntax, and the unconventional explanations of her inner mechanics renders her narrative perspective less "strange," allowing these features so characteristic of her narration to be understood as markers of Klara's fictional cognitive interiority. In this process, readers are—using Caracciolo's words—"seduced by [Klara's] ways of thinking" (45–46), responding positively to what social psychologists call "mere exposure effect" (Caracciolo 46) or the "familiarity principle" (Zajonc). Nevertheless, the text appears to deliberately disrupt this comfort by strategically reintroducing cognitive strangeness through the deployment of symbolic imagery—most notably through the figures of the bull and the sheep—which transitions the reader towards a deeper exploration of Klara's nonhuman "psyche." Ishiguro's symbolic insertion invites a renewed interpretive distance both from the narrative itself and from the character-centred illusion constructed through

[7] Building on Berys Gaut's account of "identification" with characters, Caracciolo further elaborates five distinct aspects of another person's (or character's) perspective that readers may imaginatively simulate: (1) somatic, involving bodily awareness and movement; (2) perceptual, relating to sensory experiences; (3) emotional, encompassing feelings akin to those of the character; (4) epistemic, concerning beliefs and knowledge about the world; and (5) axiological, involving the character's motivations and values. This framework highlights that empathy in narrative engagement extends from relatively basic somatic and emotional responses to more complex cognitive processes that presuppose familiarity with language, concepts, and cultural contexts (Caracciolo 39–40).

Klara's perspective. This narrative technique underscores, through a cyclically increasing and decreasing of readers' distance from the narrator, that although Klara's accounts are anthropomorphic, she remains fundamentally different from conventional human cognitive models.

Literary experimentation with Klara's nonhuman unconscious unfolds upon their arrival at Morgan's Falls, where the imagery of the bull first appears. Seen through Klara's eyes, this animal evokes an uncanny sensation:

> I'd never before seen anything that gave, all at once, so many signals of anger and the wish to destroy. Its face, its horns, its cold eyes watching me all brought fear into my mind, but I felt something more, something stranger and deeper. At that moment it felt to me some great error had been made that the creature should be allowed to stand in the Sun's pattern at all, that this bull belonged somewhere deep in the ground far within the mud and darkness, and its presence on the grass could only have awful consequences. (Ishiguro 113)

The presence of the bull, on the surface signalling Klara's fear and astonishment, suggests, however, a deeper, more figurative significance that extends beyond the literal content of her narration. Functioning as a formal device, the bull momentarily interrupts the character-centred illusion of unmediated access to Klara's inner world. The sudden introduction of this symbolic imagery compels a pause, a moment of strangeness where readers recognise that Klara is not merely reporting an encounter but perceiving and experiencing it in a way that diverges from readers' habitual expectations of cognitive and emotional engagement with reality. It is at this juncture that the text foregrounds its own artifice, reminding us that Klara's perspective is not transparently available, but an "illusion" mediated through textual fabrication. Precisely at this point, cognitive estrangement is reintroduced: readers must take interpretive distance, acknowledging the fictionality of Klara's "mind" in order to apprehend the symbolic resonance of the bull. This dynamic aligns with Caracciolo's theorisation of how identification with "strange" narrators is continually counterbalanced by imaginative resistance, producing a psychological dissonance that stimulates interpretation (224). In Ishiguro's novel, then, cognitive estrangement does not simply unsettle but productively defies readers' folk-psychological competencies (Caracciolo 56), guiding them to confront the partial limitations of Klara's

robotic perception while engaging with the figurative dimensions that exceed it.

Paradoxically, the interpretation of this symbolic insertion nevertheless depends on the mechanism of empathetic perspective taking. In order to ascribe meaning to the bull, readers must imaginatively inhabit Klara's position and speculate about what she, as an emotional robotic entity, might be feeling. In this way, the symbolic figure simultaneously fractures and sustains immersion, as it foregrounds the artifice of the narration while also soliciting affective identification. Ishiguro thereby stages an interpretive oscillation that impossibly blends "similarity and otherness" (Bernaerts et al. 72), in which readers must negotiate the tension between empathy and distance, illusion and awareness of fictionality, an oscillation that ultimately conditions the possibility of attributing meaning to Klara's perceptions. The "strangeness" of the bull's description prompts readers to see it as an unconscious response to Klara's first internal conflict, as she feels heavily divided between a newfound sensation of pleasure from being the sole focus of Chrissie's attention for the first time, and a simultaneous sense of guilt for having left Josie behind. This emotional struggle further intensifies when Chrissie tests Klara's capacity to impersonate Josie—an emotionally and ethically disorienting demand that destabilises the AF and that gives rise to divergent "stranger and deeper" feelings in her (Ishiguro 113).

Read in this light, the symbolic presence of the bull emerges as an externalised projection of Klara's repressed longing for love and belonging within the family, a desire incompatible with her primary function as an Artificial Friend and therefore displaced into what may be termed her "technical unconscious." Evocative of Carl Jung's psychoanalytic "shadow" (Perry and Tower 1), the bull represents precisely those impulses that Klara vaguely perceives yet cannot reconcile with the normative duties of her machinic "ego ideal," hence her assertion that "the bull belonged somewhere deep in the ground" (Ishiguro 113). This affective disruption, which is exuded through her distinctive cognitive-emotional architecture, demonstrates a machinic analogue to unconscious repression, where discomfort manifests precisely through symbolic perception. Readers are prone to believing that Klara's anxiety subsides once they leave Morgan's Falls, when the ominous image of the bull is replaced by the image of a group of sheep grazing. This visual scene "filled [Klara] with kindness—the exact opposite to the bull" (Ishiguro

121), a symbolic shift that indicates how, after her earning of a closer position to Chrissie, this emotional friction has been eased.

Klara's reliance on her particular visual-metaphoric engagement with reality is also determinant for her gradual transformation into a sort of "AI martyr" (Straus 187). Drawing on both her solar-powered design and her observation of the sun's apparent effect on a convalescent "Beggar Man and his dog" (Ishiguro 185), Klara develops a form of ordinary morality or faith (Straus 185), concluding that the sun's "special nourishment" (Ishiguro 3) holds healing powers that can be applied to humans.[8] This reasoning prompts her to presume that Josie's health will be restored if she similarly receives this help. This straightforward formula is a reflection of her machinic capacity for problem-solving, which relies on her ability to draw causal inferences from data and extrapolate generalised solutions through these correlations. Damasio's research has precisely called attention to how systematic decision-making and efficient problem-solving are not only dependent on conscious cognition, but these capacities are heavily rooted in and shaped by other bodily-nonconscious cognitive processes tied to emotions—which in humans are strongly linked to somatic markers arising from physiological changes in the body (*The Feeling* 217). A key aspect of this fictional scenario lies in Klara's incapacity to engage in what Sampson calls "corporeal thinking" ("Nonconscious Affect" 298), which refers to the embodied and embedded mode of cognition that utterly defines human decision-making. This cognitive limitation leaves Klara "overly swayed by the promise of immediate reward or a simple solution to a complicated problem" (Denburg and Hedgcock 79), which manifests more explicitly in her conviction that a human ailment such as the one that Josie experiences will disappear through exposure to the sun. Her commitment to this belief propels her into an act of quasi-religious devotion: determined to save

[8]Faith constitutes a crucial thematic thread in *Klara and the Sun*. For Klara, the sun assumes the status of a healing force, embodying a quasi-religious object of devotion. In contrast, human characters increasingly direct their faith towards technology: the creation of Artificial Friends cultivates the belief that these beings can access knowledge or capabilities beyond human understanding. Still, this idea comes to the fore more strongly through the character of the pseudoscientist Mr Capaldi, who functions as the principal advocate of faith in technology within the novel. He encourages Chrissie to maintain confidence in the potential of Artificial Friends, portraying them as more than mere replicas and suggesting that they can provide comfort and continuity in the event of Josie's death.

Josie, Klara decides to traverse an open field to make a direct plea to the sun on Josie's behalf.

Remarkably, Klara's reciprocal bargain with the sun, which reimagines the process of receiving solar energy through the principles of sacrifice and compromise, is made on the basis of her commitment to give something in return:

> I know how much the Sun dislikes Pollution. How much it saddens and angers you. Well, I've seen and identified the machine that creates it. Supposing I were able somehow to find this machine and destroy it. To put an end to its Pollution. Would you then consider, in return, giving your special help to Josie? (Ishiguro 186)

Klara's nonhuman stance offers a crucial lens through which to understand her appeal to the sun. Unlike most human characters in the novel, whose "rational ego-consciousness" is the centre of gravity that structurally dominates external social, cultural, and economic systems (Raud 114), Klara engages with the world, and the sun, from a position that resists dominant Western logics. As such, Klara's plea to the sun emerges as something more than robotic problem-solving: it may be understood, on the one hand, as a form of religious offering or sacrifice, and as an act of devotion that frames her appeal as a ritualised or ceremonial gesture of recognition of the sun's powers; on the other, this position resonates with certain Indigenous philosophies that emphasise "relationality, reciprocal generosity and respectful care" (Bignall and Rigney 162). While the diversity of Indigenous traditions resist homogenisation, many share a commitment to "being-more-than-human" and to posthumanist forms of knowledge grounded in the "natural laws of interdependence" (Bignall and Rigney 162). More concretely, her sacrificial appeal recalls Robin W. Kimmerer's philosophy and practice based on "reciprocal, mutualistic relationships with the earth" (317), insofar as it exposes a sense of engagement that moves from exploitative models and utilitarian logics (Lochery 5) into forms of symbiotic co-participation. In this sense, Klara's robotic cognition not only defamiliarizes Western modes of knowing but actively reorients them, inviting readers to face an "expansion of the domain of subjectivity" (Herman, *Narratology* 43) and to glimpse alternative ways of "being" and relating. Her nonhuman narrative accounts, as well as her reciprocal relation to the sun, "destabilize anthropocentric ideologies" (Bernaerts et al. 74–75), and, as such, they

demonstrate that what initially appeared to be a partial limitation has revealed itself to be a unique lens through which to observe other truths that might elude dominant Western worldviews.

2.2 Transformative Companionship and Affective Interdependencies

Klara's relational mode of engagement with the world, marked by her attentiveness to care, is especially relevant if we consider not only her own cognitive nature but also how she forms relations with the humans around her, particularly Josie. *Klara and the Sun* (Ishiguro) intricately weaves the relationships between technical and human cognitions, to the point that they have come to deeply depend on one another, evolving together in the cognitive ecology of this future speculative setting. However, although humans may have created these technologically mediated social systems, they appear to have lost control of how they operate, mutate, and evolve, giving way to unintended forms of co-dependency that reach beyond humans' primary intentions, an outcome that Hayles identifies as particularly substantial in the context of technologically developed societies (*Unthought* 172). Even though Ishiguro does not offer a detailed background about the precise workings of this speculative social order, it transpires through the narrative that artificial intelligence and significant advances in biotechnology shape its structural underpinnings, influencing the conditions in which human-technical dependencies unfold.

This is particularly evident in the complex assemblage Klara and Josie create, which represents an imaginary futuristic pattern of human-machine interdependency that transcends mere functionality. Josie's genetic editing procedure—an allusion to CRISPR-Cas9 genome editing technology, which enables scientists' manipulation of DNA (Ishiguro and Knight)—functions as a symbol of humanity's technological advancement and transhumanist desire for superiority and control. Paradoxically, however, this intervention renders her, and by extension these generations of lifted children, more dependent on Klara's artificial companionship. The AFs robotic presence proves to extend beyond the fulfilment of a utilitarian impulse, and way beyond technological emancipation: they become essential agents embedded in the socio-affective fabric of this posthuman society. In this sense, Klara and Josie can be considered mirror images of technological breakthroughs. While one is an accomplishment of artificial intelligence, the other is a result of genetic modification. Still, both are

cognitively reliant on each other to fill in the consequential gaps that these biotechnological advancements have brought.

Their relationship, and the cognitive assemblage they constitute, illustrate the entangled existence of human and technological conditions, demonstrating how informational and affectual exchanges, open to the robotic nonhuman in this context, connect and mediate a sense of vulnerability and mutual care between Josie and Klara (Dodds 182). Such entanglements resonate with theoretical approaches to care that pay attention to the ethical significance of the nonhuman within webs of relationality. María Puig de la Bellacasa understands care as an "affective force" that is always happening in between (162), which she associates with "love, the recognition that something is important, as well as responsibility and somehow "concern" for another's well-being" (Puig de la Bellacasa 162). Crucially, her conceptualisation frames care as an "a-subjective notion" that demands an ethical imagination capable of recognising "the many ways in which nonhuman agencies are taking care of many human and *nonhuman* needs" (Puig de la Bellacasa 161).

This perspective illuminates how Klara and Josie's interactions establish a reciprocal and ethically charged form of care that transcends conventional human-technology conceptualisations. An indicative example of their relationship occurs when, despite enjoying a rare conversation with Chrissie, Josie interrupts the moment to prioritise Klara: "Mom, that's just great. But do you mind if Klara and I go up to my room for a minute? Klara just loves to watch the sunset and if we don't go now we'll miss it" (Ishiguro 62). Josie's gesture of concern for Klara's visual pleasure is also mirrored at the end of the novel, when Klara has been retired to the Utility Room, before she is finally sent to the Yard, and cannot access the small window to look outside. Josie then creates a space for Klara to reach and enjoy the views, saying: "you should have told me before . . . I know how much you love looking out" (Ishiguro 326). These moments are indicative of how Josie and Klara's relationship is not simply based on one-sided dependencies, or "only [on] a bilateral relation between user and companion" (Van Oost and Reed 16). They suggest what Ellen van Oost and Darren Reed have called "*distributed emotional agency*" (16), or interactions that transcend the conventional hierarchies separating human and nonhuman experiences, attesting how theirs is an emotional bond forged in mutual recognition and affective companionship (Innola 70).

The relationship between Klara and Josie, nevertheless, is not based on equal proportions of affective exchanges. In this assemblage, Klara's cognitive existence runs through intensive and pervasive interconnections with Josie, and in that sense, she seems to comply with Hayles's prediction that these technical systems, if ever conscious, would "see humans [as] part of *their* extended cognitive system" (*Unthought* 216). Klara's belief in their mutual dependency fuels her profound desire to become not just her owner's companion and friend, but also to assume the position of Josie's primary caregiver and to seek solutions to solve her health issues, even at the expense of her own technical and operational integrity.[9] The affective attachment that Klara professes for Josie manifests as a literal sacrifice of a part of her own robotic body in order to destroy "the hideous Cootings Machine" (Ishiguro 32) and keep her promise to the sun.[10] However, this act of sacrifice appears ineffective since Josie's condition deteriorates, which prompts Klara to confront the limitations of her initial assumptions about reciprocity and the nature of her exchanges with the sun.

Klara comes to realise that something beyond a purely transactional exchange is required, and she conjectures that only something as potent as the genuine love that Josie and Rick—her "unlifted" best friend and apparently prospective boyfriend—have shared since childhood would appeal to the sun's compassion. This second plea for Josie is made upon the premise of this more profound emotional bond, rather than on benefiting or material exchanges, a plea that even calls out an effort for favouritism:

[9] Klara's role as primary carer resonates with other robot-as-carer narratives, such as Andromeda Romano-Lax's *Plum Rains*, Carole Stivers's *The Mother Code*, or Jake Schreier's film *Robot & Frank*, which explore affective bonds between humans and artificial agents. However, Klara's attachment to Josie is distinguished by its culmination in a literal sacrifice of a part of her robotic body, a gesture that extends beyond symbolic or functional care.

[10] The "Cootings Machine" is the term Klara uses to describe a construction vehicle she observes during roadworks. The machine emits large clouds of smoke that obscure the sun's rays, leading Klara to perceive it as a threat to the sun's power. The name "Cootings" is visible on the machine's side, prompting Klara to adopt it as its identifier. In her quest to fulfil her promise to the sun and aid Josie, Klara believes that destroying the Cootings Machine will restore the sun's favour. However, when she discovers another, larger machine replacing it, this not only renders her effort futile but also illustrates the limits of her comprehension of the world and the complexity of cause-and-effect relationships in her environment.

> I know favoritism isn't desirable. But if the Sun is making exceptions, surely the most deserving are young people who will love one another all their lives. Perhaps the Sun may ask, "How can we be sure? What can children know about genuine love?" But I've been observing them carefully, and I'm certain it's true. They grew up together, and they've each become a part of the other. Rick told me this himself only today. I know I failed in the city, but please show your kindness once more and give your special help to Josie. (Ishiguro 305)

The passage brings out how Klara's cognitive and emotional maturity culminates in the recognition that the unique love shared between Josie and Rick—an emotional connection she is able to interpret and treasure—is sufficiently potent to motivate the sun to intervene on Josie's behalf. Yet, this second appeal also demonstrates that Klara's understanding of love does not remain limited to her observations of human relationships from the outside. She herself becomes deeply embedded in this affective domain through her acts of care for Josie, revealing her own capacity to engage with the "affective energy of love" (Toye 94). This suggests that, even if her responses are partially guided by her programming as a robotic companion, Klara's practices of care situate her within wider affectively charged assemblages, where both human and nonhuman generate and maintain complex "webs of relationality" (Puig de la Bellacasa 166). In this view, *Klara and the Sun* (Ishiguro) offers an expanded conception of love and affective engagement, one that operates across entities as a relational force that manifests in multiple and often contradictory forms, where care, whether human or nonhuman, emerges as one of its most enduring expressions.[11]

[11] Affection, love, and care in *Klara and the Sun* manifest in ways that are often contradictory, exposing its ambivalent and multi-layered nature. For instance, Rick's profound attachment to Josie is complicated by jealousy and possessiveness: although he appears deeply committed to her, he also desires to preserve her unchanged and insists that she conform to their shared plan. A similar tension characterises the maternal devotion of Josie's mother, Chrissie, whose attachment is especially ambivalent: her love motivates Josie's genetic lifting but is also entangled with a desire to secure her daughter's social advantage, despite the procedure's life-threatening risks. This stands in sharp contrast to Rick's mother, Helen, who rejects the lifting procedure out of concern for her son's well-being, even at the cost of his diminished social prospects. Even Klara embodies this paradoxical dynamic, as her devotion to Josie is shadowed by an

The generous, open, and benevolent form of affect that Klara manifests for Josie, which ultimately culminates in her readiness for self-sacrifice, starkly contrasts with the complicated and contrived attachments observed among the human characters, especially between Josie and her mother, Chrissie. Their daunting relationship, laden with friction and unspoken dissidences, is marked by other types of affective intensities, ones that translate as nervous control and selfish overprotection. Chrissie's affection for Josie, for example, is permeated by a desire to place her in a socially accepted and prestigious situation, which is what motivates her resolution to have Josie undergo the genetic editing procedure referred to as "lifting," despite the risk of the side effect of terminal illness or death, and, more importantly, despite the traumatic loss of her older daughter, Sal, to the same biotechnological process. Furthermore, the combination of the selfish fear of solitude and the desperation to avoid the sense of grief she experienced before instigates Josie's mother to devise her daughter's substitution plan, which involves Klara's inhabiting of Josie's replica. Following the assumption that Klara does not possess a genuine sense of self, and that Josie's individuality is in fact something that can be reduced to a set of data points that can be decoded and reproduced, both human and nonhuman are conceived as entities "subject to entirely transactional controls," transforming into something interchangeable and reified within the system of value of the techno-capitalism in the novel (Straus 200).

This narrative of one-for-one substitution, which assumes that one "thinking mind can replace and substitute another" (Holmes 136), contrasts sharply with Klara's unique symbiotic and collaborative approach that draws instead on a "collective thinking through the nature of sacrifice" (Holmes 136). Sustaining the complicated tension between control and vulnerability, the novel is framed in the crossroads between these two competing visions of human-technical relations: one governed by principles of vulnerability and affective reciprocity, and the other governed by the illusion of computational cognitive replication. The tension is particularly palpable in Chrissie's complete dependency on technology, not only to ensure Josie's wellbeing and survival but also to prolong her own feigned fantasy of happiness, which indicates how agency and power relations, in this technologically mediated social context, are shifting their configurations. As such, human autonomy has become

underlying yearning to assume a daughter-like role in the Arthurs family, revealing an intermingling of care and self-oriented longing.

increasingly entangled, and contingent upon, nonhuman systems of technical support. In mirroring the current, highly technological societal structures of the Global North, the speculative America devised by Ishiguro reflects what Hayles observes in *Unthought*: that the notion of "control"—as a synonym for power here—has slipped from individual human hands to become something diffused across different, both technical and human, cognitions in broader distributed systems (117).

In this context, Josie's substitution plan—unveiled midway through the novel—functions as a central organising device. It testifies to the latent ethical tensions between the susceptibility of the human fantasy of unmitigated control through technology and the material reality of a world in which human-technological interdependencies have fragmented and diffused control across both human and nonhuman cognitive actors. In Ishiguro's speculative scenario, where human characters such as Chrissie are heavily dependent on technological systems—as exemplified when she "asks" Klara to "be" her daughter—the text foregrounds a reflection about the multifaceted tensions embedded in cognitive assemblages. Examples such as this one underscore the non-neutrality of these configurations, which, far from being exclusively functional, are inherently political enmeshments structured around questions of power, agential capacities, and ontological recognition (Hayles, *Unthought* 178). Yet, Klara resists the ideology of substitution by prioritising Josie's life over her own desire for familial belonging (Holmes 143), which establishes the conditions for a relational ethics that refuses the "me versus you" rationale (Gergen xiv).[12] Though she is offered the possibility of becoming Josie, which would grant her love and recognition, Klara avoids this path, undertaking a second plea to the sun on her friend's behalf. In doing so, Klara enacts a subjectivity predicated on being and thinking *with* others rather than

[12] Kenneth J. Gergen's relational philosophy, as formulated in *Relational Being*, offers a conceptual framework that extends beyond the simple "me versus you" dichotomy. For Gergen, the self is not a pre-existing, autonomous entity but is constituted through ongoing relationships; ethical responsibility emerges from the interconnectedness of selves rather than from isolated individual decisions. This perspective is analytically productive for understanding Klara's approach to substitution: by prioritising Josie's life over her own desire for familial belonging, Klara enacts a form of relational being in which ethical obligations are inseparable from the networks of care and mutual constitution in which she participates. Gergen's philosophy provides a lens to interpret her actions as more than moral choices; they can be read as expressions of an intersubjective ethical orientation.

assuming the logic of thinking *for* others, affirming the distinction between human and Artificial Friend while sustaining a relational ethic grounded in care and responsibility.

Ethical and affective concerns in *Klara and the Sun* (Ishiguro) coalesce to connect individual human-technical assemblages with the "ecosocial matrix" (Protevi 50) of the novel's broader landscape. This creates a sense of connection in which assemblages are not restricted to humans and computational media's one-to-one interactions, but they also expand into the inclusion of multilayered and infrastructural technological mediation (Hayles and Sampson 75). Described subtly, attentive readers can discern narrative connections between what happens in the domestic setting of Josie's home and the socio-political dynamics of the novel. The theme of substitution can be recognised as the guiding thread of both the personal and the socio-economic realities of characters, bringing out more evidently how "[t]he global, the national and the local are all effects of more or less dense connections" (Müller 35). This suggests that phenomena at any level—economic, social, or political—emerge from overlapping and interdependent interactions across multiple scales, so that local or domestic events impact and are influenced by national policies, which in turn shape and are transformed by global dynamics. A product of these thick interconnections is reflected through the situation of Mr Arthur, Josie's father, an engineer who has been "substituted" in his job at a clean energy plant by what we assume to be an AI (Ishiguro 112). As the novel progresses, it is finally disclosed how his was not an isolated case but rather a fact that many professionals who had previously earned good salaries "solving difficult technical problems have now been replaced by algorithmic systems" that carry out their tasks more efficiently (Hayles, "Subversion" 269).

The reality of the substitutions and the emergence of technical cognitions that have rendered humans "obsolete" have also given way to the creation of a new social order, one where some of these substituted individuals have been "pushed" to reframe their lives in ways that allow them to continue their previous social prestige. This is the case of Mr Arthur, who now lives in an enclosed community of "all white people and all from the ranks of the former professional elites . . . [who] came the same road as [he] did" (Ishiguro 257–58). The pending vulnerability and fear of losing the uniformity and uncontested nature of their previous privilege have also led them to "arm [themselves] quite extensively against other *types*," which Ishiguro affirms is turning towards "the fascistic side"

(275). This technological apartheid has resulted in the reinforcement and sharpening of systemic inequalities, guiding the social and political landscape of the novel towards polarity and precarity, rather than the opposite as many transhumanist thinkers optimistically promise. Instead of forging connection, cognitive technologies as well as biotechnological genetic developments have intensified divisions, reshaping affective and ethical relationships from the micro to the macro levels of society. The speculative world created by Ishiguro can thus be read as a call to action on the part of readers. Representing an extended form of our current "techno-capitalism" (Sampson, "Affect" 2), the novel encourages us to adopt more inclusive and considerate perspectives where both humans and nonhuman cognitive and affective experiences—as well as the assemblages they constitute—are recognised and, most importantly, taken seriously.

CONCLUSION

The critical analysis of Kazuo Ishiguro's *Klara and the Sun* has substantiated the multiple possibilities of rethinking the idea of cognition beyond the physical boundaries of the human brain. The novel, challenging the humanist endeavour to place human subjectivity at the centre, productively imagines the "leaps triggered by the extension of consciousness and agency" into the fictional humanoid Klara (Colombino and Childs 360). This research has mainly focused on two central narrative aspects that relocate cognition within a broader, more encompassing landscape. First, it has observed how Klara's autodiegetic accounts work as a persuasive experiment that destabilises human-centred cognitive ideologies. Achieving a cyclical oscillation between empathetic perspective taking and cognitive dissonance, Klara, considered here an example of a narrator that elicits "feelings of strangeness" (Caracciolo xv) through her partial, machinic perspective, compels readers to abandon their customary point of view and usual cognitive engagement with reality to develop instead a sense of empathy and cognitive estrangement attuned to her artificial nonhuman reality. In this view, the novel opens the door to the recognition of both continuity and differentiation, as suggested by narratologists Bernaerts et al. (74–75), between human and nonhuman cognitive forms of thought and experience.

Further, the novel offers a speculative exploration of agency, care, and control as processes diffused and distributed among different cognisers,

both human and nonhuman. *Klara and the Sun* (Ishiguro) depicts human-machine interactions based on informational and affectual exchanges across different types of cognitive entities. On a micro level, affective forces like love or care circulate between Josie and Klara, each influencing the other in deep and intimate ways. Yet, beneath this linkage, there are darker undertones that also connect their bond to the substitutive, perfectionist, and competitive impulse that, at a socio-political dimension, shapes the novel's speculative world order. As the frictions and interpenetrations of human and technology intensify in the novel, control and agency become increasingly distributed across cognitive assemblages, highlighting how human-machine interactions, at every level, carry ethical implications that demand careful attention. The text speculatively suggests that such assemblages supersede the capacity of individual human control, while they concurrently interconnect human and nonhuman entities in a shared sense of vulnerability and cognitive co-participation.

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