

Exploring Embodied Consciousness: The Intersection of Science and Sensuality in Elif Shafak's *10 Minutes 38 Seconds in This Strange World*

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Abstract

This paper aims to investigate how Shafak constructs a literary space in which the rationality of science intersects with the emotive and sensorial dimensions of human life, revealing the complexity of embodied existence. Engaging with *10 Minutes 38 Seconds in This Strange World* (2019) the study explores how the protagonist, Tequila Leila, negotiates personal trauma, memory, and identity through a framework that fuses neurological time with deep sensuality. Crucially, this expanded research integrates Maurice Merleau-Ponty's theory of "Phenomenology" and C.P. Snow's "Two Culture" to deepen the understanding of Shafak's narrative. While Snow's "two Cultures" thesis outlines the historical schism between the sciences and humanities, Merleau-Ponty's "phenomenology" offers the ontological remedy, positing that the body is not merely an object of science but the very condition of consciousness. The analysis demonstrates that Leila's final memories after her death are not cognitive retrievals but activations of a "body schema" that persists in its grip on the world. By reimagining the novel as a "perceptual field" where the boundaries between the dying subject and the living city dissolve, Shafak challenges Western dualisms of mind-body and reason-emotion, offering a holistic vision in which science and sensuality are reconciled in the flesh of the text.

Keywords: science and sensuality, literature, embodiment, memory and trauma

1. Introduction

Shafak's *10 Minutes 38 Seconds in This Strange World* (2019) is a novel that unfolds in the scientifically plausible interval between biological death and the cessation of neural activity. During this brief period (ten minutes and thirty-eight seconds of lingering electrical firing in the brain) the protagonist, Tequila Leila, revisits her life through a series of vivid, sensory-stimulated memories. These recollections, each embedded in specific smells, tastes, textures, and sounds, reveal a life marked by trauma, resilience, friendship, and marginalization. Shafak's distinctive narrative strategy renders the text an ideal site for exploring the intersection of Snow's (1961) "Two Cultures" and Merleau-Ponty's (2005) "Phenomenology". Together, these frameworks illuminate how the scientific and the sensual, the empirical and the experiential, converge within Shafak's portrayal of embodied memory and identity.

In his seminal work *The Two Cultures and the Scientific Revolution* (1961), Snow argues that Western intellectual life had become divided into two mutually alienated cultures: the scientific culture, characterized by the empirical method, technological innovation, and quantitative reasoning, and the literary-humanistic culture, defined by moral inquiry, aesthetic judgment, and interpretive nuances. His statement, "Literary intellectuals at one pole -at the other scientists. Between the two a gulf of mutual incomprehension-sometimes hostility and dislike, but most of all lack of understanding" (Snow, 1961, p.4), clearly shows this divide. Snow lamented not only the lack of communication between these cultures but also their growing hostility and mutual incomprehension. (Collini, 1993). He insisted that such disciplinary isolation prevented society from addressing complex human problems, predominantly those related to poverty, inequality, and technological change (Kobylarek, 2015).

Shafak's novel offers compelling contemporary perspectives on Snow's theory. The scientific concept of post-clinical awareness of death provides the narrative's temporal and structural framework, grounding the story in biological possibility. However, the content that fills this scientific framework is intensely humanistic: rich in sensual imagery, emotional resonance, and ethical depth. Thus, the novel rejects the binary separation. Instead, it demonstrates how scientific and literary modes of knowledge can collaborate to create a more holistic representation of human experience. By integrating neuroscientific verisimilitude and sensory memory, Shafak's narrative models the interdisciplinary synthesis that Snow called for but felt was lacking. "Closing the gap between two cultures is a necessity in the most abstract intellectual sense, as well as in the most practical" (Snow, 1961, p.53).

It is Obviously that reading the novel solely through Snow's perspective is insufficient. To fully grasp Shafak's focus on sensory experience and the body, the embodiment theory provides an essential complementary framework. This study integrates the specific phenomenological contributions of Maurice Merleau-Ponty as detailed in recent scholarship (Wang, 2025). Merleau-Ponty's

phenomenology helps to describe how this dialogue is lived at the level of Leila's embodied consciousness. His account of perception as always already bodily undermines dualistic conceptions of mind and body, suggesting instead that sensing, remembering, and imagining are modalities of an embodied subjectivity situated in a particular lifeworld. This is supported by his claim that

The theory of body schema is, implicitly, a theory of perception. We have relearned to feel our body. In the same way we shall need to reawaken our experience of the world as we are in the world through our body, and insofar as we perceive the world with our bod" (Merleau-Ponty, 2005, p.239).

The notion of body-memory, in which past experiences are retained as dispositions and can be reactivated by sensory stimuli, is especially pertinent for understanding how each unit of narrative time in the novel is initiated by a specific sensation. "The memory is recovered when the body opens itself to others or to the past" (Merleau-Ponty, 2005, p.191). Merleau-Ponty (2005) fundamentally challenges the Cartesian view of the body as a machine piloted by a ghost. Instead, he proposes several key concepts that are critical for understanding Shafak's narrative: a) The Body Schema: Merleau-Ponty distinguishes between the "body image" (a conscious representation of the body) and the "body schema" (*schema corporel*). The body schema is the body's pre-reflective, unconscious power of coordination; it is "The way in which the individual exists in the world to coexist with others, and one is able to subconsciously perceive with the body what the mind does not perceive" (Wang, 2025, p. 54). In the context of the novel, Leila's memories are not intellectual retrievals; they are activations of the body schema. b) The Perceptual Field: Merleau-Ponty introduces the concept of the "perceptual field." Unlike the traditional view, which posits that perception is point-like, he argues that perception is a "Field where things are presented in a composite, holistic manner" (Wang, 2025, p. 51). This is crucial for analyzing Shafak's "Minutes" that she talks about in the novel. When Leila tastes salt, she does not just taste sodium chloride; the "perceptual field" of that taste includes the tears, the trauma, the room, and the emotional resonance) The Flesh (*La Chair*): Perhaps the most potent concept for this study is "The Flesh." Merleau-Ponty proposes that the body and the world are made of the same element. The "communication between human beings and the external world is the direct mutual perception and interaction between the 'flesh' and the 'flesh of the world'" (Wang, 2025, p. 50). This "intertwining" implies that when Leila tastes the city, the city is also tasting her; her subjectivity is dispersed into the streets, smells, and elements of Istanbul

In Shafak's novel, the human body is not a passive subject affected by external forces but a dynamic and responsive agent. It remembers, reacts, resists, and narrates. Through her vivid and often poetic depictions of bodily sensation whether the taste of salt, the sensation of sexual violation, or the final minutes of post death brain activity Shafak reclaims the body as a valid site of epistemology and experience. Her blend of sensory imagery and scientific metaphors enables a broader, more comprehensive understanding of human consciousness; one that embraces fragility, pleasure, trauma, and resilience.

The present study contends that Shafak's *10 Minutes 38 Seconds in This Strange World* (2019) deconstructs traditional binaries of mind and body, science, and sensuality, and male and female by portraying embodied experiences as valid forms of knowledge and resistance. Through a close reading of *the novel*, the study explores how Shafak uses scientific references such as neurology, memory, and trauma alongside deeply sensual imagery to reclaim the body as a site of epistemological authority. Drawing on Snow's "Two Cultures" and embodiment studies, the study demonstrates how Shafak's narrative strategy not only critiques rationalist ideologies but also offers a more integrated, embodied vision of human experience

1.1 Research Questions

- 1) How does Elif Shafak integrate scientific ideas (neurology, biology, psychology) into her narratives of human experience?
- 2) In what ways does sensuality through the body, desire, food, and memory shape the characters' identities and emotional realities?
- 3) How does the interplay of science and sensuality reflect resistance to traditional binaries such as reason/emotion, mind/body, and male/female?
- 4) How do Shafak's novels situate the body as a site of knowledge, transformation, and political agency.

1.2 Research Objectives

Based on the research questions, the study seeks to achieve the following objectives:

- 1) To analyze how Shafak fuses scientific and sensual elements to construct embodied human experiences.
- 2) To explore how the body, particularly the female body, functions as a narrative and epistemological center in her fiction.
- 3) To identify how Shafak challenges dominant cultural and philosophical binaries through literary strategies.
- 4) To contribute to interdisciplinary dialogues around embodiment, trauma, gender, and knowledge production in contemporary literature.

2. Literature Review

Elif Shafak's novel *10 Minutes 38 Seconds in This Strange World* (2019) presents a distinctive intersection of scientific and humanistic knowledge, making it a compelling text for analysis through C. P. Snow's (1961) "Two Cultures" framework. Snow argued that modern intellectual life is divided between the sciences, which prioritize empirical thinking, and the humanities, which prioritize interpretive and aesthetic understanding. Shafak's novel effectively addresses this divide by incorporating a neuroscience-informed hypothesis that Leila's consciousness persists for ten minutes and thirty-eight seconds after death within a literary structure grounded in sensory memory and social narrative.

The novel's extensive use of sensory memory aligns closely with embodiment theory of Maurice Merleau-Ponty (2005), which asserts that perception, memory, and subjectivity are inseparable from bodily experience. Researches into embodied perception in narrative studies also demonstrate that readers emulate the sensory and motor experiences of characters, fostering understanding, emotional resonance, and empathy (Holm, 2024). Shafak systematically uses olfactory, tactile, auditory, visual, and gustatory imagery to recreate Leila's lived experience, allowing readers to experience her post-death consciousness in a phenomenological manner.

Despite these theoretical convergences, the current study reveals significant gaps. First, literary studies of Shafak's work primarily focus on sociocultural themes, including trauma, marginalization, and gender, but rarely analyze how the ten-minute, thirty-eight-second temporal structure activates embodied memory and consciousness. This represents a notable gap in understanding how narrative time mediates the convergence of scientific and human knowledge. Second, while empirical research on near-death experiences documents enhanced sensorimotor and emotional memory (Parnia et al., 2014; Borjigin et al., 2013), these findings have not been systematically integrated into literary analyses of long-form novels, leaving unexamined how sustained narratives can mimic embodied perception over extended periods. Third, while research on narrative perception and embodiment underscores the role of sensorimotor simulation in short texts and controlled experimental settings (Holm, 2024), we still know little about how these processes function in culturally specific, complex, and multi-temporal narratives such as Shafak's Istanbul-based novels. Furthermore, the reader's epistemic position has received only limited attention.

The novel's integration of post-death scientific consciousness with rich sensory narration raises questions about how readers engage with credibility, interpretive authority, and emotional engagement; issues largely absent from current research (Gander, et al., 2023). Moreover, the cultural specificity of Shafak's narrative, its social, religious, and urban contexts suggests that embodied emulation and emotional engagement are mediated not only by sensory language but also by readers' familiarity with these contexts, a phenomenon that remains largely unexplored in the literature. Finally, Snow's "Two Cultures" framework has rarely been applied to contemporary literary analysis, particularly in studies exploring how novels deliberately integrate scientific reasoning and human sensibility to produce hybrid epistemological theories. Thus, Shafak's work represents a practical example of interdisciplinary epistemological negotiation and a gap in scholarly research.

In short, *10 Minutes 38 Seconds in This Strange World* (2019) exemplifies the convergence of scientific and human knowledge through its temporal structure, its post-death consciousness hypothesis, and its richly embodied sensory narrative. The literature reveals several fundamental gaps: (a) an inadequate analysis of how Shafak activates embodied memory within a post-death timeframe; (b) a limited exploration of how readers engage with hybrid epistemologies in extended, culturally contextualized narratives; (c) a limited integration of contemporary neuroscience and embodiment theory in literary analysis; and (d) an incomplete application of Snow's "Two Cultures" framework to understanding literature that bridges scientific and human knowledge. Addressing these gaps requires interdisciplinary scholarship that combines rigorous textual analysis, embodiment theory, narrative cognition, and neuroscience to illuminate how Shafak's novel implements a hybrid epistemology capable of reconciling historically fragmented modes of knowledge.

3. Research Methodology

This study employs a qualitative and interpretive literary analysis to examine the intersection of science and sensuality in Elif Shafak's novel *10 Minutes 38 Seconds in This Strange World* (2019) through the binary frameworks of C. P. Snow's "Two Cultures" (1961) and "Phenomenology" of Maurice Merleau-Ponty (2005). The study employs close reading as its primary analytical method, with particular attention to narrative structure, sensory imagery, character embodiment, and the representation of scientific discourse. It identifies and examines textual moments that connect neurological concepts, such as post-death neural activity, with sensory memory in order to evaluate how the novel weaves scientific rationality together with embodied emotional experience.

4. Discussion

Elif Shafak's *10 Minutes 38 Seconds in This Strange World* (2019) presents a striking intersection of literary narrative and scientific plausibility, particularly through the lens of Tequila Leila's post-death consciousness. The novel's central idea that consciousness persists for ten minutes and thirty-eight seconds after death provides a unique narrative structure that emphasizes sensory memory, social identity, and bodily experience. Drawing on Snow's *Two Cultures* (1961), Shafak explores the gap between scientific rationality and human sensibility, embodying what has been termed a "third culture" in which literary imagination validates concepts inspired by experience (Kobylarek, 2024). The novel also aligns with contemporary embodiment theory, which emphasizes the interconnectedness of perception, memory, and identity with the physical body (Merleau-Ponty, 2005). Through a close reading, this analysis reveals how the text positions the body as a locus of knowledge, memory, and moral consciousness, highlighting the sensory richness of Leila's experiences and the social and cultural structures that shape her life and death.

4.1 Minute One: Salt and Sensory Activation

The opening minute of the novel, following Tequila Leila's post-death consciousness, focuses on the sensory experience of taste. It highlights taste as the primary channel of memory and consciousness: "The first memory that came to her mind was about salt – the feel of it on her skin and the taste of it on her tongue" (Shafak, 2019, p. 8). This short sentence establishes multiple critical analytical frameworks. First, it situates consciousness within the body, reflecting Merleau-Ponty's (2005) phenomenological assertion that the body is not merely a vessel, but the primary center of perception. Salt here is simultaneously biological and emotional: biologically, it evokes the physiological effect of tears, which carry sodium and other minerals; emotionally, it recalls past sorrow, linking physical sensation to

emotional memory. This moment exemplifies Merleau-Ponty's concept of the 'perceptual field'. The taste of salt is not merely a chemical signal; it is a primitive and complete presentation of grief (Wang, 2025). The sensation bypasses cognitive processing and goes directly to the embodied reality of the tear. Here, the "flesh" of the body (tears) and the "flesh of the world" (salt) are indistinguishable, confirming Merleau-Ponty's view that the subject and object are made of the same elemental stuff. The salt acts as an archival key, unlocking a history of sorrow that is stored not in the hippocampus, but in the very habitus of the body.

Also, salt functions as a liminal substance (both preservative and corrosive) reflecting Leila's liminal state between life and death. Merleau-Ponty's rejection of dualistic thinking allows us to understand this liminality not as a metaphysical anomaly, but as an extension of corporeal existence. Consciousness, in this sense, does not abruptly separate from the body at death; instead, it persists through sensory memory, suggesting that the corporeal transcends biological vitality. Shafak's narrative, therefore, aligns with Merleau-Ponty's view that the body is not reducible to its physiological functions, but is a dynamic, meaning-generating entity.

When considered through the lens of Snow's (1961) framework, this moment also exposes the artificial nature of the division between scientific and humanistic forms of knowledge. From a scientific standpoint, taste is accounted for neurobiologically: salt activates taste receptors and triggers neural pathways associated with memory and emotion. Snow, however, critiques the tendency to isolate such scientific explanations from the cultural and experiential dimensions of understanding. Shafak's literary treatment of salt resists this fragmentation by transforming a biological process into a richly textured human experience. The novel does not deny scientific explanations of sensory perception; rather, it integrates them into a narrative that prioritizes subjectivity, memory, and affect.

This synthesis reflects Snow's call for intellectual integration, where scientific knowledge and literary insight enrich each other rather than exclude one another. Salt becomes a point of convergence between the empirical and the experiential: it is simultaneously a chemical compound and a carrier of cultural, emotional, and existential meanings. Through the narrative of sensory perception, Shafak demonstrates how literature can express dimensions of human experience that science alone cannot fully grasp, while remaining consistent with scientific understanding.

In short, Minute One establishes the novel's broader philosophical project: a reimagining of consciousness as embodied, sensory, and relational. Through the taste of salt, Shafak dissolves the boundaries between mind and body, life and death, and the sciences and humanities. Merleau-Ponty's "phenomenology" provides the theoretical framework for understanding cognition as a meaningful lived experience, while Snow's "two cultures" offers a critical lens through which to grasp the novel's interdisciplinary impulse. Together, these perspectives reveal how *10 Minutes 38 Seconds in This Strange World* uses sensory activation to bridge cognitive gaps and affirm embodiment as the foundation of consciousness.

4.2 Minute Two: Lemon and Sugar as Cultural and Familial Memory

In the second minute of Leila's post-death consciousness, Shafak foregrounds pleasure, affect, and embodied memory as central to awareness. "Two minutes after her heart had stopped beating, Leila's mind recalled two contrasting tastes: lemon and sugar" (Shafak, 2019, p.19). This sensory duality signifies a shift from the initial salty, tangy taste to the interplay between acidity and sweetness, immediately highlighting the emotional dimension of perception. Unlike cognitive reflection, this memory arises from the body's lived experience: the tongue and taste buds act as gateways to the emotional and personal past. The sweetness of sugar is not neutral; it evokes comfort, warmth, and intimacy, embodying Merleau-Ponty's assertion that perception is always intentional and value-laden.

Maurice Merleau-Ponty (2005) emphasizes that "To be a body is, to be tied to a certain world" (p. 171). Here, the taste of sugar exemplifies this principle: the body does not merely register a chemical stimulus but actively constitutes consciousness. The sensory encounter triggers affective memory, carrying Leila into moments of childhood pleasure where lemon-sugar mixtures were part of her lived rituals. Merleau-Ponty (2005) further notes that "The body is the hidden form of being oneself" (p. 192), highlighting that memory is sedimented in bodily experience, not only in mental constructs. Shafak's detailed attention to sweetness demonstrates that consciousness in the dying or recently deceased body remains tied to sensation and emotion, showing that affective perception is inseparable from awareness.

Snow's (1961) concept of "two cultures" offers a complementary perspective. Snow observed that separating scientific knowledge from human knowledge leads to a partial and fragmented understanding, particularly when dealing with phenomena such as consciousness. From a scientific perspective, sugar activates the neural reward system, stimulating dopamine release. However, Shafak rejects reducing this event to a mere physiological reaction. Instead, she transforms sweetness into narrative meaning and emotional resonance, illustrating Snow's view that integrating scientific understanding with literary insight is essential for a complete understanding of human experience (Snow, 1961). The memory of lemon and sugar connects these two "cultures": the biochemical aspect is inseparable from the phenomenal, the measurable from the meaningful.

Furthermore, the sensory and emotional interplay of sugar interacts with the novel's temporal structure, as each "minute" after death explores a different bodily sense. In the second minute, the experience extends beyond mere taste to encompass emotion and memory. The contrast between lemon and sugar mirrors Leila's oscillation between pain and pleasure, highlighting how consciousness remains relational and embodied even after the body ceases to function biologically. By grounding consciousness in the emotional body, Shafak subverts Cartesian dualism and underscores the primacy of lived experience over abstract perception.

In short, the second minute captures the essence of the novel in its exploration of embodied consciousness, revealing how pleasure,

memory, and affect converge in the sensual body. Through Merleau-Ponty, we understand that the body facilitates perception and memory; through Snow, we see that these experiences require the integration of scientific and literary knowledge. The taste of sugar becomes a lens through which to understand consciousness as a living, embodied, and meaningful experience, thus expanding Shafak's phenomenological project and providing a vivid example of how literature can express the complex intersections of body, memory, and emotion.

4.3 Minute Three: Cardamom Coffee and the Social Body

Leila's post-death consciousness in the third minutes emphasizes olfactory memory, linking the sensory experience of cardamom coffee to relational, social, and spatial awareness: "Three minutes had passed since Leila's heart had stopped, and now she remembered cardamom coffee –strong, intense, dark. A taste forever associated in her mind with the street of brothels in Istanbul." (Shafak, 2019, p.28). This quote illustrates how bodily sensation functions as a means by which Leila accesses her past, indicating that her consciousness remains rooted in the lived and tangible body rather than abstract cognitive thinking.

The sensory trigger at this moment aligns with the phenomenology of Maurice Merleau-Ponty, who asserts that "We perceive the world through our body" (Merleau-Ponty, 2005, p.239). For Merleau-Ponty, perception and memory are not abstract mental constructs, but rather embodied acts that integrate the sense of meaning. The aroma of cardamom coffee does not merely evoke a scent; it conjures an emotional and relational history rooted in the urban landscape of Istanbul. Thus, Shafak portrays cardamom coffee as the site of a deliberate embodied experience, where Leyla's sense of self, her social identity, and her sensory memory converge.

Moreover, cardamom coffee evokes not only personal history but also social relationships. In the brothel, shared cups of strong, dark coffee become moments of interaction and solidarity among members of the marginalized community. This aligns with Merleau-Ponty's view that embodiment is inherently intersubjective; we live in the world with others, and our sensory experiences are shaped as much by social contexts as by physiological factors. Wang (2025) explains that the body is no longer an extension of the isolated individual but the way in which the individual exists in the world to coexist with others.

From Snow's (1961) viewpoint, this moment demonstrates how Shafak integrates the scientific and humanistic approaches to understanding. Snow argued that the separation between the sciences and the humanities limits our comprehension of complex human phenomena. A scientific explanation might account for the olfactory process in which the volatile compounds of cardamom stimulate nerve receptors, but it would fail to grasp the meaning, affect, and memory associated with that scent. Shafak's narrative shows that sensory experience is both physiologically real and literarily rich, illustrating Snow's call for the integration, rather than separation, of scientific knowledge and humanistic perspective (Snow, 1961).

Thus, Minute Three's focus on cardamom coffee deepens the novel's exploration of bodily consciousness, demonstrating how sensory experience carries emotional, social, and cultural significance. Through Merleau-Ponty's phenomenology and Snow's critique of disciplinary divisions, this minute reveals that consciousness- even in its final moments is shaped by the sensory history of the body and its social world.

4.4 Minute Four: Watermelon, Embodied Memory, and Interpersonal Connection

This moment of Leila's post-death consciousness focuses on Leila's sensory memory of the watermelon, highlighting the role of embodied perception in shaping consciousness: "Four minutes after her heart had stopped beating, a fleeting memory surfaced in Leila's mind, bringing with it the smell and taste of watermelon" (Shafak, 2019, p. 37). According to Merleau-Ponty (2005), perception is not a separate cognitive act, but rather the body's interaction with the world; consciousness is always embodied. In this scene, Leila's memory arises from the experience of taste, demonstrating that meaning is inseparable from physical presence. Pleasure is not an abstract reflection, but a phenomenon accessible only through the body and its interaction with the world.

The text further emphasizes that watermelon is "shared, not eaten alone," placing the experience within an interactive context. Merleau-Ponty (2005) argues that the body is always in communion with others; perception and consciousness are relational. Leila's memory embodies the idea that sensual pleasure is experienced collectively, reinforcing the notion that identity and meaning arise from embodied social interaction rather than isolated perception. Even in the final moments of her consciousness, it remains directed toward others, reflecting Merleau-Ponty's insistence on the relational structure of subjectivity.

Through Snow's (1961) "Two cultures" framework, this moment reveals the inadequacy of purely scientific explanations of human experience. Scientific knowledge can explain the physiological mechanisms of taste and pleasure, but it is incapable of grasping the ethical, social, and experiential dimensions inherent in communal eating. Snow argues that the dominance of scientific rationality threatens to produce technically accurate knowledge, but it overlooks the lived, social, and ethical realities of human existence. The memory of the watermelon underscores that understanding human life requires integrating phenomenological perspective with humanistic inquiry, thus bridging the gap identified by Snow.

Shafak's focus on ordinary bodily pleasure challenges reductionist approaches to the study of the body. In Snow's critique, bodies are often viewed through the lens of productivity or utility. In contrast, Leila's memory demonstrates that the body, as a space of lived experience, cannot be fully understood through instrumental or scientific frameworks alone. Bodily pleasure is meaningful and contextually linked to the social sphere, offering qualitative and relational knowledge that cannot be reduced to a quantitative measure.

By combining Merleau-Ponty's (2005) phenomenology with Snow's (1961) critique of epistemological division, the fourth minute reveals

that consciousness and social meaning are inseparable from bodily experience. The watermelon incident underscores that ethical and epistemological understanding requires attention to the body in how it is perceived, interacts with, and communicates with others. This moment embodies the integration of humanistic and scientific methods of inquiry advocated by Snow, while also highlighting the centrality of bodily perception in Merleau-Ponty's work.

4.5 Minute Five: Spiced Goat Stew as Embodied Memory and Sensory Relationality

Minute five focuses on Leila's memory of the smell and taste of spiced goat "Five minutes after her heart had stopped beating, Leila recalled her brother's birth. A memory that carried with it the taste and smell of spiced goat stew – cumin, fennel seeds, cloves, onions, tomatoes, tail fat and goat's meat." (Shafak, 2019, p. 46). This emphasizes that olfactory and gustatory sensations are inseparable from familial, ritual, and communal life. In Merleau-Ponty's phenomenology (2005), perception is essentially embodied; meaning arises from the body's interaction with the world, not from abstract perception. Leila's memory demonstrates that consciousness persists through bodily sensory experience, even after death.

This memory is inherently social and relational. Smell and taste evoke family celebrations, community interactions, and cultural practices, embodying Merleau-Ponty's (2005) concept of the body as an entity in relation to others. The senses of smell and taste function as vehicles for relational experience, connecting Leila to others and her social environment. Even after her death, these embodied memories maintain their social and cultural links, underscoring the interactive nature of perception. Here, soup becomes more than just a meal; it is a repository of familial care, social recognition, and emotional sustenance. In Merleau-Pontian terms, this is a profound moment of intercorporeality and the flesh. The grandmother's labor (her body's movements in chopping, stirring, spicing) is sedimented in the stew. When Leila eats the stew, she is ingesting the "intentional arc" of her grandmother's love. The "flesh" of the grandmother and the "flesh" of Leila communicate through the medium of the food. This confirms Merleau-Ponty's view that "Communication between human beings and the external world is the direct mutual perception and interaction between the 'flesh' and the 'flesh of the world'" (Wang, 2025, p. 50).

From Snow's (1961) "Two cultures" outlook, minute five highlights the limitations of purely scientific explanation. Chemistry can describe the molecules of smell and the mechanisms of taste, but it cannot grasp the social meaning, emotional resonance, and ethical significance inherent in the memory of the spiced goat. Snow (1961) argues that separating scientific knowledge from human knowledge produces a technically accurate but socially impoverished understanding. Leila's sensory memory exemplifies the necessity of integrating phenomenological vision with humanistic analysis to fully comprehend the relational and ethical dimensions of lived experience. At the same time, the literary representation conveys ethical and relational insights such as the perception of love and the appreciation of past care that scientific data alone cannot capture. Thus, Shafak demonstrates literature's capacity to bridge interdisciplinary gaps, realizing Snow's vision of a "third culture" in which science and the humanities mutually enrich understanding.

Finally, olfactory, and gustatory memory challenges the reductionist view of the body as merely a biological system. The senses of smell and taste function as vehicles for cultural, relational, and emotional knowledge, demonstrating that bodily perception conveys a social, emotional, and ethical understanding that cannot be reduced to purely physiological mechanisms (Merleau-Ponty, 2005; Snow, 1961).

Interpreted by Merleau-Ponty and Snow, minute five affirms that consciousness, relationships, and moral meaning are inseparable from bodily perception. The memory of the marinated goat meat demonstrates how the body contributes to the transmission of cultural, sensory, and social knowledge, underscoring that lived experience is fundamental to human understanding.

4.6 Minute Six: Embodied Memory and Social Odor

The smell of the wood-burning stove evokes both bodily perception and emotional resonance. "As her brain continued to shut down, she still remembered the smell of the wood-burning stove with an intense, penetrating sadness" (Shafak, 2019, p. 61). This quote highlights the persistence of sensory memory even as physical consciousness fades. In Merleau-Ponty's phenomenology (2005), perception is embodied by nature; sensory experience conveys meaning directly through the lived body rather than abstract knowledge. Leila's olfactory memory shows that consciousness and emotional life continue to be mediated through the body, even after death.

This sensory memory is also rooted in the social and cultural context. The scent of the hearth evokes the atmosphere of home, family routines, and intimate moments, reflecting Merleau-Ponty's (2005) concept of the body as an entity interacting with others. Perception is relational: the scent connects Leila to people, places, and cultural practices, preserving her social and emotional ties even after her death. The profound sadness associated with this memory underscores that bodily perception is inseparable from emotional and moral dimensions.

Through Snow's (1961) lens, this moment exemplifies the inadequacy of scientific explanations in encompassing the qualitative, relational, and ethical dimensions of human experience. While neuroscience may describe the mechanisms of smell or memory, it fails to explain the social and emotional significance inherent in Leila's memories. Snow argues that separating scientific knowledge from human knowledge produces a technically accurate but socially deficient understanding. Leila's memory exemplifies the need to integrate phenomenological perspective with human interpretation to fully grasp lived experience.

Lastly, olfactory memory challenges reductionist perspectives that treat the body solely as a biological system. Scent serves as a vehicle for cultural, social, and emotional knowledge, demonstrating that bodily perception conveys relational and ethical understanding that transcends physiological explanation (Merleau-Ponty, 2005; Snow, 1961).

Thus, minute six, from the perspective of Merleau-Ponty and Snow, highlights that consciousness, relationships, and ethical meaning are inseparable from bodily perception. The memory of the wood-burning stove illustrates how the body contributes to the transmission of sensory, emotional, and social knowledge, underscoring the centrality of lived experience in understanding human life.

4.7 Minute Seven: Asphalt and Loss- Urban Sensory Experience

At this moment Leila consciously recalls the taste of the earth, which she describes as “dry, chalky, bitter” (Shafak, 2019, p.62), thus linking this bodily perception to social displacement and existential alienation. Shafak’s use of this gustatory memory underscores that sensory experience is not merely a biological function, but a realm of meaning, rooted in life history and social identity. In Merleau-Ponty’s phenomenology (2005), perception is always embodied; it is not an abstract mental act, but a direct interaction of the body with the world. The instinctive nature of the taste of the earth (unpalatable and stark) evokes not only a physical sensation but also Leila’s embodied relationship with her environment, leaving the mark of hardship and marginalization on her lived experience.

This memory is also relational and cultural in nature. The soil here evokes scenes from the countryside and early life, suggesting both belonging and alienation; two central themes in Shafak’s narrative. Merleau-Ponty (2005) argues that the body exists in relation to others; perception is not formed in isolation, but rather through the individual’s engagement with social and environmental contexts. The bitterness of the earth is not merely a sensory attribute, but embodies Leyla’s interactions with her past, including her upbringing, the dynamics of her family, and the landscapes that shaped her physical being. The bitterness of memory reflects the existential tension between presence and absence in her final consciousness.

From viewpoint of Snow (1961) minute seven reveals the inadequacy of scientific reductionism in grasping the qualitative totality of human experience. While neuroscience may explain taste receptors and neural pathways, it fails to explain the social and existential significance of these memories, nor does it grasp how taste can evoke a multi-layered history and emotional constructs. Snow warns that scientific descriptions divorced from the human context risk rendering human life technically knowable but morally impoverished. Leila’s memory of the soil exemplifies this gap: sensory phenomena are laden with social meaning and cannot be fully understood without a human interpretation.

Lastly, the embodied memory of the soil challenges reductionist explanations that treat the body as a neutral vessel for sensation. Instead, the body emerges as a medium for cultural and existential knowledge, and perception becomes a form of lived understanding (Merleau-Ponty, 2005; Snow, 1961). Thus, the bitter taste of the land acts as a cognitive tool, revealing how lived experience (shaped by the environment, society, and history) constitutes a fundamental dimension of consciousness.

Minute Seven, as understood through Merleau-Ponty and Snow, affirms that consciousness, relationships, and moral meaning are inseparable from embodied sensory experience. Leila’s memory of the soil highlights how the body not only mediates sensation but also mediates the social and existential fabric of her life.

4.8 Minute Eight: Embodied Memory and Violent Imprint

The eighth minute of Leila’s post-death consciousness evokes the smell of sulphuric acid; a sensory imprint associated with one of the most painful moments of her life. The narrative recounts the memory of her body being burned with acid after a man violently threw sulphuric acid on her as she tried to escape his harassment, leaving a wound that never fully healed; a scar that remained with her both physically and psychologically. “Eight minutes had gone by, and the next memory that Leila pulled from her archive was the smell of sulphuric acid (Shafak, 2019, p.76).

Merleau-Ponty (2005) argues that sensory experience is not an abstract cognitive phenomenon, but rather one rooted in the lived body, which constantly interacts with its world. The memory of sulphuric acid, for example, does not function as a mere descriptive detail, but as an embodied sensation that shapes Leila’s consciousness. The smell is inseparable from the physical pain, social violence, and stigma she endured, demonstrating that sensory memory persists throughout the body’s history, not through a separate intellectual recording. For Merleau-Ponty, then, the persistence of this sensation in consciousness after death underscores the primacy of embodiment in shaping human experience.

The trauma associated with the sulphuric acid incident also points to the social dimensions of bodily perception. When Leila recalls the smell of acid, she is not merely evoking sensory data, but also a moment of physical violation and power imbalance, reflecting her marginalization as a woman and a sex worker in Istanbul. Merleau-Ponty (2005) asserts that the body is an entity in relation to others, rooted in the social relationships that shape perception and memory. Thus, olfactory memory carries both individual emotional weight and social significance, revealing the body as a site where personal and political histories intersect.

From the perspective of Snow’s (1961) “Two Cultures” the eighth minute reveals the inadequacy of scientific explanations of sensory phenomena when divorced from the human and ethical dimensions of the experience. Neuroscience can describe how olfactory receptors sense chemical stimuli like sulfuric acid, and chemistry can analyze molecular structure, but these technical explanations cannot capture the emotional and social significance of such a memory. Snow warns that relying solely on scientific models produces technically accurate but ethically impoverished knowledge. The persistence of this painful olfactory memory demonstrates the necessity of integrating qualitative and physical experience into our understanding of human life if we are to grasp its full meaning.

The memory of sulphuric acid serves as a powerful example of the importance of bodily experience in both phenomenological and humanistic inquiry. In the final moments of Leila’s consciousness, sensory recollection did not dissipate into abstraction but remained

firmly rooted in the bodily self, bearing with it the traces of social violence, emotional pain, and existential meaning. Through the interpretations of Merleau-Ponty and Snow, this moment demonstrates that consciousness and social meaning are inseparable from bodily perception, and that the humanities play a crucial role in interpreting experiences that science alone cannot fully explain.

4.9 Minute Nine: Embodied Memory and Interpersonal Meaning

This moment of Leila's post-death consciousness recalls her memory of chocolate bonbons. "In the ninth minute, Leila's memory simultaneously slowed down and spun out of control. She now remembered D/Ali, and the thought of him brought along the taste of chocolate bonbons with surprise fillings inside – caramel, cherry paste, hazelnut praline" (Shafak, 2019, p. 83). Shafak portrays this memory by suggesting that Leila's sensory recollection of "chocolate sweets with their delicious and surprising fillings," linked to Leila's affection and her unique worldview. This memory is consistently described as connected to her emotional life and the affection she harbors for another person. In Merleau-Ponty's phenomenology (2005), sensory perception is not a passive neurological event but an embodied interaction with the world; taste here is inseparable from emotion, relationships, and the ongoing, distant trajectory of Leila's consciousness. Thus, the chocolate sweets become a vehicle through which embodied memory carries emotional and personal meanings. "Affectivity is conceived as a mosaic of affective states explicable and explicable only in terms of bodily system" (Merleau-Ponty, 2005, p.178).

Leila's memory of this taste reinforces Merleau-Ponty's view that the body is an entity that interacts with others, not merely an isolated perceiver (Merleau-Ponty, 2005). The sweet is not simply a taste sensation, but is experienced within a context of communication and mutual care. It recalls a moment of acceptance of affection, where the presence of another person reshaped Leila's understanding of herself. Consciousness, even in its final moments, remains linked to relationships, shaped by bodily interactions that transcend isolated physiological processes.

From Snow's (1961) point of view, minute nine highlights the inadequacy of scientific rationality when it attempts to reduce sensory experience to purely physiological terms. Neuroscience can describe taste receptors and neural pathways, but it cannot explain the social and emotional significance of a taste memory associated with love and belonging. Snow warns that an over-reliance on technical knowledge marginalizes the human dimensions of experience. Layla's memory of the chocolate treat exemplifies this gap, demonstrating that lived experience requires interpretive frameworks that integrate meaning, context, and interconnectedness.

Also, the memory of taste challenges the reductionist view of embodiment that treats bodily sensations as neutral biological inputs. The chocolate treat carries emotional resonance and social significance, demonstrating that embodied perception conveys moral and emotional knowledge that cannot be grasped by scientific explanation alone (Merleau-Ponty, 2005; Snow, 1961). Thus, the sensory experience of taste functions as a form of associative knowledge, embodying identity, desire, and communication.

As interpreted by Merleau-Ponty and Snow, minute nine confirms that consciousness, interconnectedness, and meaning are inseparable from embodied perception. Layla's memory of the chocolate treat reveals how sensory experience connects the personal and the personal, reinforcing the central premise that human understanding must integrate both phenomenological perception and humanistic inquiry.

4.10 Minute Ten: Embodied Memory and Gastronomic Recollection

In the final minute Leila's consciousness transforms into the taste of fried mussels, a sensory detail that embodies memory incarnate on the threshold of death. "As time ticked away, Leila's mind happily recollected the taste of her favourite street food: deep-fried mussels – flour, egg yolks, bicarbonate of soda, pepper, salt, and mussels fresh from the Black Sea" (Shafak, 2019, p.92). This illustrates how the sense of taste remains alive even after the body ceases to function. Sensory memory here acts as a continuation of the physical experience, suggesting that taste can carry emotional and cultural connotations that extend beyond mere culinary sensation.

This recollection aligns with Merleau-Ponty's (2005) assertion that perception is embodied and contextual; it is not an abstract cognitive event but a direct interaction between the body and its world. In this context, Leila's memory of food is not merely a fleeting taste experience but also a relational indicator; the taste of her beloved street food evokes intimate memories of the past, social spaces, and details of daily life in Istanbul. Even as neural activity declines, the living body continues to register meaning through sensory experience, demonstrating that consciousness and embodiment are intertwined.

This sensory recollection also highlights the deep-rootedness of perception within cultural practice, reflecting Merleau-Ponty's (2005) concept that the body is "being with others," engaged in a world of shared practices and meanings. Eating fried mussels in Istanbul is not an isolated act but an integral part of communal life, the rhythms of the city, and cultural memory. The persistence of this sensation in Leila's final moments underscores how bodily perception maintains social and cultural connections even after death.

As seen through Snow (1961), the tenth minute reveals the inadequacy of scientific explanations that focus solely on physiological processes, such as the activation of taste receptors or neural signals. While neuroscience can describe how taste is encoded in the brain, it cannot explain the social, emotional, and moral dimensions that imbue a remembered taste with significance. Snow warns that when scientific logic prevails without a human perspective, understanding becomes technically accurate but socially and morally impoverished. Leila's taste memory demonstrates that a full understanding of human experience requires integrating phenomenological insight with human interpretation, thus helping to bridge the gap identified by Snow.

Furthermore, the taste of the fried mussels challenges the reductionist view of the body as merely a biological machine. Here, the body's role extends beyond simply transmitting sensory input; it also conveys emotional resonance, cultural identity, and relational meaning.

Thus, Leila's final taste memory serves as a living archive of life, demonstrating that perception, meaning, and social connection cannot be reduced to scientific description alone (Merleau-Ponty, 2005; Snow, 1961).

The tenth minute, as analysed by Merleau-Ponty and Snow's framework, underscores that consciousness, relationships, and cultural meaning remain firmly rooted in embodied sensory experience. The taste of the fried mussels illustrates how the body's sensory memory preserves the details of life, reinforcing the idea that lived experience is essential to human understanding and that the humanities are indispensable for interpreting it.

5. Conclusion

The sequential analysis of Leila's consciousness after her death in *10 Minutes 38 Seconds in This Strange World* demonstrates that embodied perception forms the basis of human experience, extending even after biological life ceases. Over the course of ten minutes, Leila's memories (ranging from taste of the salt to the taste of fried mussels) show that perception is not a separate cognitive process but rather an active bodily interaction with the world. In line with Merleau-Ponty's phenomenology (2005), consciousness is inseparable from the lived body; the body is simultaneously the subject and the medium, a site where sensory, emotional, and social meanings converge. The persistence of Leila's olfactory, gustatory, and tactile memories highlights the continuity of embodied consciousness, confirming that sensory experience functions as a repository and conduit for personal and relational meanings.

Each minute of Leila's memory underscores the interconnectedness of embodiment and social interaction. For example, the aroma of marinated goat meat and the taste of chocolate candy do not exist in isolation. Rather, they are inextricably linked to family, community, and personal relationships. Merleau-Ponty (2005) asserts that the body is an entity in relation to others, and that perception is always situated within social and cultural contexts. Leila's sensory archive reveals that relationships are encoded within the body itself: her experiences of pleasure, trauma, and everyday life are not merely cognitive memories, but rather embodied inscriptions of social and moral relationships, preserved in consciousness after her death.

From eyes of Snow's (1961) "two cultures," the novel exemplifies the inadequacy of a purely scientific or reductionist understanding of human experience. While physiology, chemistry, and neuroscience can describe the mechanisms of taste, smell, and neural processing, they fail to grasp the moral, emotional, and cultural dimensions inherent in Leila's memories. For instance, the memory of the smell of a wood-burning stove evokes a mixture of domestic intimacy and profound sadness, while the taste of earth reflects social and existential alienation. Snow's critique of the separation between scientific and human knowledge underscores that a full understanding of human experience requires interdisciplinary integration: phenomenology and humanistic analysis reveal the relational and ethical dimensions of experience that technical explanations alone cannot uncover.

These theories collectively contribute to clarifying how Leila's consciousness after death functions as an embodied archive of lived experience, preserving social, cultural, and ethical meaning through sensory perception. As Merleau-Ponty suggests, embodiment mediates between perception, memory, and relationships, making the body itself a vehicle for consciousness. Simultaneously, Snow's framework highlights that these embodied experiences are only comprehensible when interpreted from a humanistic perspective, demonstrating the necessity of linking scientific research with humanistic literature to understand life and death in all their facets.

As a final point, Shafak demonstrates that human understanding is rooted in embodied, relational, and social perception. Leila's sensory memories reveal that consciousness is a synthesis of physical, emotional, and cultural aspects, where every sensation carries ethical and relational significance. By combining Merleau-Ponty's phenomenology with Snow's critique of disciplinary separation, the analysis affirms that the body, perception, and social context are inseparable elements in the formation of knowledge, meaning, and ethical reflection (Kobylarek, 2018). Thus, Leila's sensory journey after her death embodies the profound interplay between embodiment and human understanding, providing a model for addressing consciousness, social interaction, and memory in both literary and philosophical inquiry.

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References

- Borjigin, J., Lee, U., Liu, T., Pal, D., Huff, S., Klarr, D., ... Mashour, G. A. (2013). Surge of neurophysiological coherence and connectivity in the dying brain. *Proceedings of the National Academy of Sciences of the United States of America*, 110(35), 14432-14437. <https://doi.org/10.1073/pnas.1308285110>
- Collini, S. (1993). *Introduction*. In C. P. Snow, *The two cultures* (pp. vii–lxxiii). New York: Cambridge University Press.
- Gander, P., Szita, K., Falck, A., & Lowe, R. (2023). Memory of Fictional Information: A Theoretical Framework. *Perspectives on Psychological Science*, 20(2), 308-324. <https://doi.org/10.1177/17456916231202500> (Original work published 2025)
- Holm, A. (2024). *The Stylistics of Embodiment: Language and Sensory Memory in Lyric Texts*. Cham, Switzerland: Palgrave. <https://doi.org/10.1007/978-3-031-78230-5>
- Kobylarek, A. (2015). Science between and against disciplines in the social sciences and humanities. (2020). *Journal of Education Culture and Society*, 6(2), 5-8. <https://doi.org/10.15503/jecs20152.5.8>
- Kobylarek, A. (2018). Divided science. *Journal of Education Culture and Society*, 9(1), 5-8. <https://doi.org/10.15503/jecs20181.5.8>
- Kobylarek, A. (2024). Types of Knowledge in Post-Scientific Society. *Journal of Education Culture and Society*, 15(2), 7-16. <https://doi.org/10.15503/jecs2024.2.7.16>
- Merleau-Ponty, M. (2005). *Phenomenology of Perception*. (C. Smith, Trans.), (digital ed.). London: Routledge. (Original work published in French 1945).
- Parnia, S., et al. (2014). AWARE—AWAREness during RESuscitation—A prospective study. *Resuscitation*, 85(12), 1799-1805. <https://doi.org/10.1016/j.resuscitation.2014.09.004>
- Shafak, E. (2019). *10 Minutes 38 Seconds in this Strange World*. Penguin Books.
- Snow, C. P. (1961). *The two cultures and the scientific revolution*. New York: Cambridge University Press. <https://doi.org/10.1063/1.3057748>
- Wang, Y. (2025). Body and perception - A study of Merleau-Ponty's theory of the body. *Proceedings of the 3rd International Conference on Social Psychology and Humanity Studies*, 78, 50-55. <https://doi.org/10.54254/2753-7048/78/2025.19114>