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Toward a Quantum Poetics: Entanglement, Superposition, and Observer Effect in the Poetry of Anne Carson

نحو شعرية كميّة: التشابك، والتراكب، وتأثير المراقب في شعر آن كارسون

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Abstract:

This study explores the applicability of quantum theory as a conceptual and analytical framework for interpreting contemporary poetry, with a specific focus on the work of Anne Carson. It investigates how three foundational principles of quantum mechanics entanglement, superposition, and the observer effect can be employed to reinterpret the dynamics of poetic meaning. The study is grounded in the assumption that poetic language does not function as a fixed system of representation but rather as a dynamic and relational structure that continuously generates meaning through interaction. Within this framework, entanglement is understood as the structural and semantic interconnectedness of textual elements, where meaning arises not in isolation but through relational dependencies across images, voices, and narrative fragments. Superposition is used to describe the coexistence of multiple potential meanings within a single poetic structure, where interpretation remains open, layered, and non-exclusive until it is actualized through reading. The observer effect, in turn, highlights the active role of the reader in shaping and stabilizing meaning, suggesting that interpretation is not external to the text but constitutive of it.

Through a qualitative methodology based on close reading and theoretical analysis, the study demonstrates that Carson's poetry exhibits patterns of meaning-making that resonate strongly with quantum principles. Her poetic structures often resist linear coherence and instead operate through fragmentation, simultaneity, and shifting interpretive possibilities. This allows the text to function as a dynamic field of potential meanings rather than a singular, determinate message.

Ultimately, the study proposes that quantum theory offers more than a metaphorical parallel to literary analysis; it provides a structured epistemological model for understanding how meaning is produced, suspended, and transformed in poetic discourse. In doing so, it contributes to the development of "quantum poetics" as an emerging interdisciplinary approach that redefines the relationship between text, reader, and meaning in contemporary literature.

Keywords: Quantum Theory, Quantum Poetics, Entanglement, Superposition, Observer Effect, Contemporary Poetry, Anne Carson.

المخلص:

تستكشف هذه الدراسة قابلية تطبيق نظرية الكم بوصفها إطاراً مفاهيمياً وتحليلياً لتفسير الشعر المعاصر، مع تركيز خاص على أعمال آن كارسون. وتبحث الدراسة في كيفية توظيف ثلاثة مبادئ أساسية من ميكانيكا الكم، وهي: التشابك، والتراكب، وتأثير المراقب، لإعادة تفسير ديناميكيات المعنى الشعري.

تنطلق الدراسة من فرضية أن اللغة الشعرية لا تعمل كنظام ثابت للتمثيل، بل بوصفها بنية ديناميكية وعلاقاتية تولد المعنى باستمرار من خلال التفاعل. وضمن هذا الإطار، يُفهم التشابك على أنه الترابط البنيوي والدلالي بين عناصر النص، حيث لا ينشأ المعنى في عزلة، بل عبر علاقات اعتماد متبادلة بين الصور والأصوات والشذرات السردية. أما التراكب فيستخدم لوصف تعايش معانٍ متعددة محتملة داخل البنية الشعرية الواحدة، حيث يظل التأويل مفتوحاً ومتعدد الطبقات وغير حصري إلى أن يتحقق عبر فعل القراءة. في حين يسلط تأثير المراقب الضوء على الدور الفاعل للقارئ في تشكيل المعنى وتثبيتته، مما يشير إلى أن التأويل ليس خارج النص، بل هو جزء مُكوّن له.

ومن خلال منهجية نوعية تعتمد على القراءة الدقيقة والتحليل النظري، تُبين الدراسة أن شعر كارسون يُظهر أنماطاً في إنتاج المعنى تتقاطع بشكل واضح مع مبادئ الكم. إذ غالباً ما تقاوم بنياتها الشعرية التماسك الخطي، وتعمل بدلاً من ذلك عبر التفكك، والتزامن، وتعدد إمكانات التأويل. وهذا ما يجعل النص يعمل كحقل ديناميكي للمعاني المحتملة، لا كرسالة واحدة محددة ونهائية.

وفي النهاية، تقترح الدراسة أن نظرية الكم تقدم أكثر من مجرد موازنة مجازية للتحليل الأدبي؛ فهي توفر نموذجًا إبستمولوجيًا منظمًا لفهم كيفية إنتاج المعنى وتعليقه وتحوله في الخطاب الشعري. وبذلك، تسهم في تطوير ما يُعرف بـ"الشعرية الكمية" بوصفها مقارنة بين-تخصصية ناشئة تعيد تعريف العلاقة بين النص والقارئ والمعنى في الأدب المعاصر.

الكلمات المفتاحية : نظرية الكم، الشعرية الكمية، التشابك، التراكم، تأثير المراقب، الشعر المعاصر، آن كارسون.

Introduction

The recent development of quantum theory in the early twentieth century represents a significant epistemological break in the history of modern thought. Before this scientific revolution, classical Newtonian physics had created a perspective based on determinism, continuity, and objectivity. The universe, under this framework, was perceived as a closed system regulated by unchangeable laws, wherein all physical occurrences could, theoretically, be anticipated with complete certainty provided sufficient data were accessible. Knowledge served as a reflection of reality, and it was presumed that observation did not influence the events being examined.

This classical perspective transcended the realm of physics, influencing philosophical beliefs regarding causality, subjectivity, and representation. Truth was regarded as steady and certain, signifying as unchanging and obtainable, with the knowing subject perceived as apart from the object of knowledge. Recognized uncertainty was attributed to epistemic constraints rather than the inherent structure of reality (Heisenberg, 1958). Quantum mechanics severely undermined this foundation. Due to a series of theoretical interventions and experimental discoveries in particular the contributions of Planck, Einstein, Bohr, Heisenberg, and Schrödinger physics was driven to address phenomena that rejected deterministic interpretation. At the quantum level, particles displayed behaviors that defied conventional intuition, demonstrating wave-particle duality, probabilistic characteristics, and non-separable relationality. These discoveries required a fundamental redefinition of reality, wherein indeterminacy, probability, and relational interaction emerged as basic rather than exceptional (Bohr, 1949).

Furthermore, quantum theory transformed the function of observation. Measurement was redefined from a passive act of documenting existing attributes to an active process that contributes to the formation of physical phenomena. The observer could no longer be distinctly differentiated from the observed, and the division between subject and object became flexible. Bohr famously contended that physics pertains not to an autonomous reality "as it is," but to "what we can articulate about nature" within particular experimental frameworks (Bohr, 1949). The epistemological consequences of this transition reached well beyond the physical sciences.

Philosophers, cultural theorists, and literary critics progressively challenged the foundational assumptions of objectivity, wholeness, and stable meaning that had supported modern thought. The breakdown of deterministic certainty in physics echoed wider intellectual trends that highlighted contingency, plurality, and the constraints of representation. N. Katherine Hayles asserts that scientific paradigms not only mirror cultural transformations but also play a crucial role in molding them, fostering creative modes of cognition and perception (Hayles, 1999). These issues align significantly with postmodern thinking. Postmodernism arises, in part, as a reaction to the noticeable weakness of grand narratives whether they scientific, philosophical, or historical in addressing the complexity and fragmentation of modern experience (Lyotard, 1984). Similar to quantum theory, postmodernism opposes the concepts of singular truth, consistent subjectivity, and conclusive interpretation. Both theories emphasize relationality rather than autonomy, probability instead of certainty, and situated knowledge over universal assertions.

This chapter suggests that the intersection of quantum physics and postmodern poetics is not solely analogical or figurative, but rather structurally and philosophically generative. When rigorously outlined and applied, fundamental quantum concepts such as superposition, entanglement, uncertainty, and the observer effect can serve as precise analytical instruments for interpreting postmodern poetry. This approach stays away from limiting poetry to scientific representation or misusing physics; instead, it regards quantum theory as a conceptual asset that transforms our understanding of meaning, form, and interpretation. The chapter is divided into five sections.

The initial section delineates the theoretical foundations of quantum theory essential to this research. The second analyzes essential postmodern theoretical frameworks focused on plurality, relationality, and indeterminacy. The final segment embodies the similarities between quantum and postmodern conceptions, converting abstract notions into actual analytical instruments. The fourth section delineates the theoretical framework behind the investigation, while the fifth elucidates the methodological techniques that organize the analytical chapters. Collectively, these parts create a rigorous and justifiable framework for a quantum-informed interpretation of modern poetry. This chapter outlines the theoretical and methodological framework that operationalizes quantum concepts as analytical instruments for poetic interpretation.

Problem Statement

Notwithstanding the increasing interest in interdisciplinary methodologies, the utilization of quantum theory in literary analysis is nonetheless constrained and inadequately advanced. Most current research depend on metaphorical allusions to scientific principles without methodically incorporating them into a cohesive analytical framework. Within the realm of modern poetry, especially in the oeuvre of Anne Carson, there exists a discernible deficiency in study that systematically applies quantum concepts to investigate the essence of poetic meaning. This gap limits the capacity for a more profound comprehension of how meaning functions in texts that defy definitive interpretation.

This study mitigates this constraint by suggesting a systematic use of fundamental quantum concepts entanglement, superposition, and the observer effect as instruments for literary analysis. It aims to transcend metaphorical application and adopt a more methodical and theoretically informed methodology.

Research Questions

In what ways might the principles of entanglement, superposition, and the observer effect function as analytical instruments in poetry?

In what ways does Anne Carson's poetry exhibit structures comparable to quantum systems?

In what manner does meaning arise through relational and observational processes inside the text?

Significance of the Study

This study advances multidisciplinary research by providing a direct link between quantum theory and literary analysis. It promotes the notion of “quantum poetics” as a paradigm that reinterprets the comprehension of meaning in poetic works. The study offers a more accurate and theoretically grounded method by concentrating solely on quantum principles, in contrast to wider interdisciplinary models. It illustrates that ideas like entanglement, superposition, and the observer effect are not only metaphorical but may operate as effective analytical instruments.

Moreover, the study deepens the critical comprehension of Anne Carson's poetry by elucidating the intricate processes through which meaning is created, disseminated, and altered.

Objectives of the Study

- To employ fundamental principles of quantum theory in the examination of poetry.
- To investigate the influence of entanglement, superposition, and the observer effect on poetic significance.
- To examine chosen poems by Anne Carson utilizing a quantum framework.
- To establish "quantum poetics" as a systematic analytical framework.
- To illustrate the significance of quantum theory in literary analysis.

Methodology

This research employs a qualitative analytical approach grounded in meticulous reading and conceptual interpretation. It utilizes fundamental ideas from quantum theory namely entanglement, superposition, and the observer effect as analytical instruments for scrutinizing literary works. The chosen poems are examined regarding their structural, grammatical, and semantic characteristics, focusing on how meaning is generated through interaction and interpretation. The study employs quantum theory not as a literal scientific application, but as a conceptual framework that elucidates the dynamics of poetic language. This method facilitates a methodical and cohesive examination while preserving the interpretive freedom essential in literary studies.

Literature Review

Peper Langhout's thesis, *Addressing Ash: Rituals of Translation and Grief in Anne Carson's Nox*, provides a significant perspective on the interplay between language, loss, and meaning. Langhout posits that translation and grief operate as analogous rituals, both embodying a mode of "groping" towards an unattainable or absent object. In Carson's *Nox*, the rendition of Catullus's Poem 101 functions as a structural "frame" that seeks to encapsulate the profound and tumultuous essence of loss. Langhout presents the notion of "elegy as a container," positing that although grieving is boundless, the process of translation offers a provisional framework for the processing of loss.

An essential element of Langhout's analysis is Carson's employment of fragmented and "exploded" dictionary entries, wherein each term of the Latin poetry is meticulously described and elaborated upon. This technique serves as a metaphor for Carson's endeavor to reconstruct her brother's life, which ultimately remains unfinished and ambiguous. The inquiry closes with the notion of "over take lessness," which denotes the inability to entirely attain the deceased or to accomplish a definitive act of translation. Carson's approach, consequently, regards failure not as a deficiency, but as a fundamental aspect of both language and human experience, resulting in epistemic voids that remain unaddressed.

Quantum Concepts as Epistemological Tools

Before analyzing the specific principles of quantum mechanics, it is essential to explain that the intellectual conditions that supported their genesis and to define the wider epistemological effects of this scientific change (i.e. This study does not treat quantum physics as a literal scientific framework for literary analysis, but as an epistemological and critical model.) Quantum theory emerged progressively,

addressing an increasing array of actual abnormalities that conventional Newtonian physics could not reconcile by the late nineteenth and early twentieth centuries.

Experimental studies of blackbody radiation, the photoelectric phenomenon, and atomic spectra produced findings that contradicted classical notions of continuity, determinism, and objective prediction. The unresolved anomalies compromised the explanatory sufficiency of the classical paradigm and initiated the pursuit of new theoretical frameworks. From the point of view of the philosophy of science, this historical intersection can be interpreted according to Thomas Kuhn's conceptual framework as a phase of paradigmatic instability or "crisis," wherein a collection of anomalies required a fundamental reconfiguration of scientific assumptions rather than mere gradual adjustments. Kuhn's concept of scientific revolutions, yet lacks a comprehensive historical explanation of quantum mechanics, serves as a valuable interpretative framework for immediately comprehending the origin of quantum theory.

In the early twentieth century, figures such as Max Planck, Albert Einstein, Niels Bohr, and Werner Heisenberg proposed theoretical innovations that departed decisively from classical physics. Their work demonstrated that, at the atomic and subatomic scale, matter and energy do not behave as stable, self-contained entities governed by deterministic laws. Instead, quantum phenomena are characterized by probabilistic outcomes and by a dependence on the specific experimental arrangements through which they are investigated (Bohr, 1949; Heisenberg, 1958). As Bohr famously emphasized, the development of quantum mechanics required "a radical revision of our attitude toward physical explanation" (Bohr, 1949, p. 210), signaling a shift away from the ideal of absolute certainty toward a more context-sensitive understanding of natural phenomena.

Importantly, this shift was not merely technical but epistemological. Bohr's principle of complementarity challenged Enlightenment assumptions of objectivity and separateness by insisting that quantum phenomena cannot be meaningfully described independently of the experimental conditions under which they are observed. Rather than claiming that the observer subjectively creates reality, Bohr argued that the conditions of measurement apparatuses, concepts, and modes of description are constitutive of what can be known. As Heisenberg later articulated, scientific observation does not reveal nature "in itself" but nature as it appears within a particular mode of inquiry (Heisenberg, 1958).

Superposition is one of the most theoretically controversial concept in quantum mechanics. It asserts that a system can exist in numerous potential states at the same time until an observation collapses it into the final outcome. Barad (2007) characterizes superposition as "embodying the mysteries of quantum mechanics," emphasizing that "if both ψ_1 and ψ_2 are solutions to the Schrödinger equation, then any arbitrary linear combination of the two solutions ψ_1 and ψ_2 is also a solution" (p. 255). This indicates that several alternatives exist as actual potentials, rather than mere hypothetical abstractions. Barad elucidates this notion by employing the analogy of wave interference: "Unlike particles, waves can be superimposed on one another. When two ocean waves overlap, the amplitude of the resultant wave is the combined amplitudes of the component waves" (Barad, 2007, pp. 255–256). It means that, Barad juxtaposes particles with waves to underscore a key distinction in the relational dynamics of entities. In classical physics, particles are seen as distinct, self-sufficient entities that maintain their own identities upon interaction. Waves, in contrast, do not simply clash or coexist; they merge. When two ocean waves intersect, they do not stay distinct but temporarily coalesce, generating a new wave whose amplitude is the consequence of the amalgamation of both waves.

During this overlap, the individual waves cannot be completely differentiated from the resultant pattern. Barad utilizes this physical phenomenon both figuratively and ontologically to contest traditional concepts of separateness and personality. Superposition illustrates that interaction transpires not between pre-existing things but through their mutual entanglement. The resultant wave is not merely the sum of two independent components; it constitutes a novel configuration arising from their interrelation. In this regard, identity is not static or pre-existing to interaction but is dynamically formed within it. This example substantiates Barad's assertion that things are generated by intra-action rather than interaction within the context of agential realism. Entities do not exist prior to their relationships; rather, they emerge through relational processes. The wave analogy demonstrates the co-constitution of meaning, matter, and agency, so supporting Barad's dismissal of traditional, particle-centric metaphysics in favor of a relational, process-oriented ontology.

Barad's agential realism underscores the ontological interconnectedness of beings and phenomena, whereas quantum superposition offers a supplementary epistemological perspective that demonstrates the relational constitution of determinacy and identity. According to quantum theory, a system exists in a superposition of numerous potential states before measurement, which shows that attributes are not set without observation (Caltech Science Exchange, n.d.; Griffiths, 2018). This probabilistic and relational logic aligns with Barad's concept of intra-action, wherein things and their attributes arise through mutual entanglements rather than existing independently (Dirac, 1958). Entanglement, The concept of entanglement, initially proposed by Erwin Schrödinger, extends further. He stated that, following the interaction of two systems, "when two systems ... enter into temporary physical interaction ... they can no longer be described in the same way as before" (Schrödinger, 1935, p. 555). Once entities have interacted, they cannot be defined independently; their attributes remain interlinked, even across distances. This principle subverts the notion of separate individuals or meanings.

In poetry, pictures or voices may seem distinct, yet they are interconnected through tone, rhythm, or theme an aesthetic manifestation of quantum entanglement. Physicist David Bohm subsequently advanced this perspective into a philosophy of wholeness. He argued that wholeness constitutes reality, whereas fragmentation represents an illusion (Bohm, 1980, Chapter 1). Bohm's theory posits that, underneath the appearance of division, exists a profound oneness. Poetry articulates this concealed coherence: it unveils the interconnectedness of language, perception, and matter as components of a singular, evolving process.

Quantum entanglement is a remarkable and non-classical aspect of quantum mechanics, demonstrating relationships between particles that traditional physics cannot describe. When two or more quantum systems are entangled, the measurement result of one system is directly correlated with the measurement result of the other, no matter the distance separating them. This phenomenon defies traditional notions of locality and separability, emphasizing the fundamentally holistic characteristics of quantum systems (Nielsen & Chuang, 2010). Entangled states are formally characterized by wave functions that cannot be decomposed into independent states for each subsystem. In a two-particle system, an entangled state cannot be represented as a mere product of individual particle states, signifying that the attributes of the entire system are intrinsically linked (Griffiths, 2018).

This phenomenon is illustrated by the renowned Einstein-Podolsky-Rosen (EPR) paradox, which challenged the completeness of quantum mechanics in describing physical reality. Subsequent experimental verification, particularly Bell's theorem and its experimental verification, have established that entanglement is an authentic physical phenomenon that cannot be replicated by any local hidden variable theory (Bell, 1964; Aspect, Dalibard, & Roger, 1982). The philosophical

importance of entanglement transcends mere technical definitions. Dirac (1958) asserts that entangled systems challenge classical separability, necessitating an update of the significance of individual particles and their attributes. Heisenberg (1958) similarly underscores that entanglement illustrates the relational character of quantum characteristics, whereby the measurement of one particle has instantaneous consequences for the other.

The relational viewpoint is fundamental in modern discourse on quantum information theory, with entanglement acting as a crucial resource for applications such as quantum teleportation, superdense coding, and quantum cryptography (Nielsen & Chuang, 2010). Recent practical and theoretical advancements have significantly enhanced our comprehension of entanglement. Multi-particle entangled states, sometimes referred to as "GHZ states," facilitate intricate correlations, illustrating that entanglement extends beyond two-particle systems (Greenberger, Horne, & Zeilinger, 1989). Furthermore, current research investigates the application of entanglement in quantum networks and quantum computing, where its non-classical correlations confer benefits for information processing that are inaccessible in classical systems (Horodecki et al., 2009)

Educational and interpretive narratives, such as those from Caltech Science Exchange (n.d.), emphasize that entanglement must not be equated with direct physical communication or instantaneous signal transmission. Instead, it signifies connections anticipated by quantum formalism that challenge classical separability while adhering to relativistic causality. Comprehending these nuances is essential, especially in interdisciplinary settings where quantum notions are utilized figuratively or philosophically.

The Observer Effect

The observer effect in quantum physics demonstrates that observation affects outcomes. Bohr (1949) argues that physics concerns "what we can say about nature, not nature in itself" (p. 208). In poetic terms, the reader is an active participant whose involvement condenses prospective meanings into temporary realities. (Irwin, 2011; Barad, 2007). Observation is therefore morally and ontologically interactive, highlighting accountability in reading, interpretation, and the construction of meaning.

Quantum Principles and the Construction of Poetic Meaning in Anne Carson's Work Anne Carson's *Nox* (2010) and *Plainwater* (1995) exemplify what this study defines as entanglement: a condition in which textual elements historical, linguistic, affective, and autobiographical cannot be separated without diminishing their significance. Rather than presenting history, memory, and subjectivity as discrete layers, Carson structures both works so that these dimensions emerge through their mutual dependence. Meaning is produced relationally rather than linearly, arising from the coexistence and interaction of heterogeneous fragments that resist integration into a unified narrative. This formal and epistemic strategy aligns with postmodern critiques of closure and epistemic finality (Lyotard, 1984; Hutcheon, 1988).

Close Reading of *Plainwater* and *Nox* by Anna Carson

Plainwater by Anne Carson is a revolutionary composition that blends poetry, prose, essays, and voyage narratives, resulting in a collection that defies conventional genre classifications. Critics characterize it as a "dizzying spectrum of forms" (Publishers Weekly, 1995) and observe that it is frequently "difficult to recognize which is poetry and which is essay" (Hamilton, 1997). This combination of forms embodies the book's themes, particularly the difficulties in understanding love, history, and identity (Gilbert, 1996). Works like *Canicula di Anna* and *The Anthropology of Water* merge rigorous thinking with emotional resonance, creating what critics describe as a rigorous yet lyrical voice (Publishers

Weekly, 1995; Hamilton, 1997). Carson's interaction with the classical era, via imagined fragments and historical narratives, enables the coexistence of ancient and contemporary viewpoints. Water serves as a recurring element, representing fluidity, desire, and the inability of containment, hence underlining the book's challenge to set bounds (Penguin Random House, 1995). Plainwater exemplifies Carson's unique poetry style: formally innovative, intellectually demanding, and open to various readings.

CANICULA DI ANNA

In the poem "What Do We Have Here?" from the section *Canicula di Anna* in *Plainwater*, Anne Carson creates a contemplative narrative that intertwines art history, philosophy, and personal experience within the historical context of Perugia (historically Perusia). The poem presents a painter linked to the Renaissance tradition, similar of Pietro Perugino, a contemporary of Michelangelo and teacher of Raphael, thereby placing the narrative within a wider cultural history of artistic creation. Carson contrasts this artistic context with a historical event wherein the Dukes of Perugia, besieged by papal forces, withdrew into the city's rocky underpinnings and built the hidden fortress of Rocca Paolina, a structure that ultimately did not preserve their authority but endures as a symbol of the city's complex history. Set against this historical context, the poem anticipates a contemporary assembly of philosophers who gather at this ancient site and engage a painter to depict them in the style of fifteenth-century portraiture, implying a symbolic desire to associate modern intellectual identity with the prestige of Renaissance art.

Their gesture embodies a linguistic and philosophical irony by invoking the concept of *Parousia*, suggesting that complex ideas necessitate visual representation to attain cultural exposure. Despite these societal and intellectual apprehensions, the poem progressively discloses that the painter is himself personally troubled by a woman whose visage and history merit equal portrayal, thereby transitioning the poem's focus from historical and philosophical dialogue to intimate human emotion.

The poem addresses themes such as creative representation, the continuity of cultural memory, the link between image and meaning, and the tension between public identity and personal emotion. Anne Carson uses form in a way that directly reinforces and enacts the poem's content, especially its focus on narrative construction, historical layering, and mediated representation.

The free verse structure, which lacks fixed rhyme and meter, reflects the instability of the story itself; rather than presenting a smooth, unified narrative, the poem unfolds as a series of fragments, mirroring the idea that stories are assembled from selected details, as suggested in "What we have here / is the story of a painter" (Carson, 1995, ll. 1–2). This fragmentation is intensified through enjambment and short lines "What do you need to know? / There are a few things" (Carson, 1995, ll. 10–11) which break information into small units, making the reader experience the process of selection and construction step by step.

The poem's use of parataxis, where statements are placed side by side without clear hierarchy, also serves its content by flattening emotional and temporal distinctions. For example, in "It came to be called La Rocca / and it did not save them / but it is still there" (Carson, 1995, ll. 17–19), the equal weight given to failure and survival reflects the poem's treatment of history as something that persists physically but loses clear meaning. This formal flatness mirrors the thematic blending of past and present, where Renaissance figures like Pietro Vannucci exist alongside modern philosophers, suggesting that time is layered rather than linear. Similarly, the insertion of parenthetical details "(ancient Perusia)" and "(c.1445–1523)" (Carson, 1995, ll. 4, 6) visually interrupts the poem,

enacting how historical knowledge intrudes into and shapes narrative rather than existing separately from it.

Moreover, the poem's prosaic and report-like tone supports its ironic treatment of representation, particularly in the philosophers' desire to be painted "in pigments of the fifteenth century" (Carson, 1995, ll. 24–25). The plain diction undercuts their attempt at grandeur, showing that identity is constructed through artificial means. In contrast, the understated presentation of the painter's emotional distress "The painter, at any rate, / is not a happy man" (Carson, 1995, ll. 30–31) demonstrates how genuine human experience resists formal stylization.

The use of rhetorical questions, especially "Does that look like enough for a story?" (Carson, 1995, l. 35), further highlights the metafictional nature of the poem, making the reader aware that what they are reading is only a partial construction. Finally, the open-ended conclusion, reinforced by the shift to "Vediamo" (Carson, 1995, l. 36), leaves the narrative unresolved, which directly supports the content's emphasis on incompleteness and possibility. In this way, the poem's form does not simply present meaning but actively performs it: fragmentation reflects narrative construction, parataxis reflects historical layering, and open closure reflects the idea that stories remain unfinished.

The poem illustrates entanglement via its deep intertextuality, uniting several historical, artistic, and philosophical settings that remain interwoven throughout the work. The first lines promptly establish the narrative within the context of Renaissance art history: "What we have here / is the story of a painter. / It occurs in Perugia / (ancient Perusia)" (Carson, 1995, ll. 1–4). This physical and historical context forges a link between the narrative and the cultural memory of Perugia.

Carson reinforces this association by referencing the Renaissance artist Pietro Perugino, described as "the painter Pietro Vannucci / (c.1445–1523) / known as Perugino, / a contemporary of Michelangelo / and mentor to Raphael" (Carson, 1995, ll. 5–9). By referencing these personalities, the poem establishes a web of artistic allusions that link the current storyline to Renaissance cultural history. The intertextual layering persists as the poem narrates the historical event of the siege of Perugia and the establishment of an inner fortress: "the Dukes of Perugia, / besieged by the forces of the Pope, / withdrew within the rock on which their city was built / and established a second, / interior city" (Carson, 1995, ll. 12–16). In this context, political history, architecture, and geography intertwine with the painter's narrative. The poem subsequently incorporates a philosophical aspect via the term *Parousia*, implying that "parousia requires a painted face" (Carson, 1995, l. 28). This term intertwines theological discourse with the visual language of painting, suggesting that abstract concepts necessitate artistic representation. The poem creates a complex intertextual network through overlapping references to art history, political history, and philosophy, allowing many historical and intellectual traditions to coexist and interact.

Secondly, the poem exemplifies superposition by featuring the simultaneous presence of various voices and views within the text. Instead than employing a singular narrative voice, Carson permits multiple discursive registers to function concurrently. One voice mirrors that of a historian or

lecturer delivering factual context, exemplified by the explanatory phrase "What do you need to know? / There are a few things" (Carson, 1995, ll. 10–11). A different voice mirrors that of a storyteller establishing narrative suspense, especially as the poem transitions to the painter's personal life: "The painter, at any rate, / is not a happy man. / A woman, as usual, is the problem" (Carson, 1995, ll. 31–33). The sardonic expression "as usual" presents a another viewpoint—that of a contemplative

commentator examining the persistent theme of love struggle throughout storytelling traditions. The poem includes instances of philosophical contemplation, particularly in the proposal that philosophers engage a painter “for purposes of public relations” (Carson, 1995, l. 22), a phrase that wittily contrasts intellectual gravitas with modern issues of representation and image.

The poem exhibits a polyphonic structure, as it incorporates historical explanation, narrative storytelling, philosophical contemplation, and sardonic commentary, allowing multiple interpretive views to coexist concurrently. This plurality resembles the notion of superposition, wherein numerous states persist without collapsing into a singular, definitive meaning. The poem illustrates the observer effect by highlighting narrative subjectivity, demonstrating how the act of narrating influences the interpretation of events. The speaker does not depict the narrative as an objective historical record but rather actively constructs and assesses the material presented. The rhetorical question “What do you need to know?” (Carson, 1995, l. 10) indicates that the narrator is emphasizing specific aspects while omitting others.

The conjectural phrasing in lines like “Perhaps they do so for historical reasons / (Perusia has a painted past)” (Carson, 1995, ll. 24–25) suggests that the narrator is inferring the philosophers’ objectives rather than asserting them definitively. The narrator's subjective presence is further emphasized in the line “You will understand / more of that than I do” (Carson, 1995, ll. 29–30), which candidly recognizes the constraints of the narrator's knowledge and encourages the reader's engagement in interpretation. This moment demonstrates how meaning in the poem arises from the relationship between the narrator and the reader. The concluding inquiry “Does that appear sufficient for a narrative? / Vediamo” (Carson, 1995, ll. 36–37) further solidifies this tentative viewpoint, indicating that the narrative is perpetually open and reliant on observation and interpretation. The observer the narrator who arranges historical, philosophical, and emotional elements directly affects the perception of the story.

Anne Carson constructs a poem that functions concurrently as a historical reflection, narrative introduction, and philosophical meditation through three conceptual dynamics: entanglement via intertextuality, superposition through a multiplicity of voices, and the observer effect through narrative subjectivity. The poem's intricate allusions intertwine Renaissance art, political history, and modern intellectual culture, while its several voices and self-reflective narration underscore that narrative is an interpretive endeavor influenced by viewpoint. Consequently, “What Do We Have Here?” not only presents the narrative realm of Plainwater but also illustrates how meaning arises from the interplay of historical context, artistic depiction, and the subjective act of observation.

Gentes In Nox by Anne Carson, the “*gentes / gens gentis*” fragment rejects a traditional narrative structure, instead developing an intellectual and emotional evolution through words. The passage begins with an essentially objective dictionary definition of the Latin term “*gentes*,” as used during Catullus' elegy for his brother, indicating “peoples,” “nations,” or the “human race.” As the definitions expand and broaden from particular groups to all of humanity and ultimately the entire world the term becomes progressively abstract, mirroring the speaker's effort to understand loss through linguistic examination. Underneath this exterior, the fragment initiates a profound shift: Carson, in her translation of Catullus' elegy, transforms a solitary word into a contemplation of distance, implying the divide between the living and the dead. The expansion of meaning highlights fragmentation and linguistic dissatisfaction as the speaker's attempt to connect with her deceased brother through words culminates in an increased awareness of her absence and alienation. In *Nox* by Anne Carson, the fragment “*gentes / gens gentis*” explores various interrelated themes focused on loss, language, and human alienation.

A prominent theme is the insufficiency of language, since the collection of dictionary definitions for a singular Latin term derived from Catullus' elegy does not provide clarity or emotional resolution, but rather underscores the inability of words to properly capture grief. The issue of fragmentation is closely associated, wherein meaning is divided into various definitions, reflecting the disjointed experience of grieving and the speaker's impaired comprehension. The passage examines distance and isolation, as "gentes" broadens to encompass all peoples and the entire globe, highlighting the profound separation between the living speaker and her deceased brother. Simultaneously, it alludes to an idea of universal humanity, indicating that mourning is not solitary but a component of a collective human experience transcending time and cultures.

Ultimately, these themes converge to illustrate that while language attempts to bring together absence and establish meaning, it concurrently reveals the constraints of expression in existence of death. In *Nox*, the entry "gentes / gens gentis" illustrates the inseparability of form and poetic techniques from contents, especially in expressing sadness and the insufficient quality of words. The disjointed, dictionary-like structure reflects the speaker's fractured emotional condition, as grief condenses speech into separate components, illustrated by different definitions such as "descent, birth,

offspring" (Carson, 2010, line 7). Lexical accumulation and parataxis are crucial, as exemplified by phrases like "clan, family, house, (poetic) herd, flock, hive" (Carson, 2010, lines 6–7) juxtaposed without syntactic hierarchy, reflecting the cyclical, unresolved essence of mourning. The recurrence and semantic resonance within the fragment from "nightis gentes: nightpeople" (Carson, 2010, line 7) to "the human race, mankind" (Carson, 2010, line 2) broaden the term's significance while simultaneously heightening emotional detachment.

Carson's prose-poetry form intentionally rejects rhyme, rhythm, and meter; lines such as "ius gentium: the universally recognized code of behaviour between nations or individuals, also the law available to aliens as well as citizens" (Carson, 2010, lines 4–5) show irregularity and a prose-like structure, resisting closure and embodying the instability of mourning. Rather than employing a formal rhythm, she generates a semantic rhythm through list and accumulation, exemplified by "people... peoples... world... mankind" (Carson, 2010, lines 1–3) and "a natural kind, class, set, race; ... clan, family, house" (Carson, 2010, lines 5–6), which creates a recursive, meditative rhythm reflective of the repetitive nature of grief. Subtle sound techniques, including alliteration and assonance in "minime gentium: certainly no!" (Carson, 2010, line 5) and the vowel echoes in "race... nation... mankind" (Carson, 2010, lines 1–2) provide slight consistency while highlighting the inadequacy of sound to completely structure meaning. Intertextuality with Catullus contextualizes the fragment within the elegiac tradition, evoking the passage "through many peoples" (Carson, 2010, line 1) while underscoring themes of isolation and absence.

The conceptual metaphor in spatial expansions like "on earth, in the world; longe gentium: at the ends of the earth" (Carson, 2010, lines 4–5) converts linguistic expansiveness into emotional separation, demonstrating how the speaker's attempts to convey meaning really emphasizes the impossible disparity to her deceased brother. Through the complex interplay of fragmentation, accumulation, parataxis, repetition, semantic rhythm, complex sound devices, intertextuality, and the absence of conventional rhyme and meter, Carson creates the poem's form a direct manifestation of grief, illustrating how language tries to capture the grief yet eventually fails to fully express it. In the "gentes / gens gentis" part of *Nox*, Anne Carson expresses mourning through three interrelated structural mechanisms: entanglement via intertextuality, superposition via a diversity of voices, and observer effect via subjectivity. While the dictionary entry initially seems objective, it transforms within the

elegiac framework of the book into an emotional and intellectual realm where language, memory, and grieving merge together. Initially, entanglement arises through intertextuality, since the concept of kinship is conveyed via inherited language and classical tradition. The entry commences with the etymological root “[GIGNO]”, signifying to give birth or generate.

By emphasizing this root, Carson associates the term *gens* with concepts of origin and lineage (Carson, 2010, “*gentes*” entry, l. 2). The definitions subsequently broaden: the term can signify “race, nation, people,” and even “the peoples or nations of the entire world” (Carson, 2010, “*gentes*” entry, ll. 3–5). Subsequent to this expansion, the definition constricts once more to more intimate terms such as “clan, family, house,” and “descent, birth, offspring” (Carson, 2010, “*gentes*” entry, ll. 12–14). This transition between broad and small scales from mankind to family produces a textual instability between the macrocosm and the microcosm. Thus, the brother simultaneously embodies a member of the entire human race and a representative within a specific familial lineage. The entry incorporates the term “*ius gentium*,” denoting the common legal or moral principles among nations (Carson, 2010, “*gentes*” entry, ll. 7–9). This broadens kinship to include cultural and social heritage beyond biological ties. Furthermore, the entire *Nox* project develops concurrently with Carson's translation of Catullus 101 by Catullus.

The Latin term *gens* is associated with ancient mourning customs due to this connection. Carson's sorrow is thus not solitary but intertwined with a profound legacy of elegiac discourse. The brother's death is intertwined with classical memory and linguistic heritage through this intertextual network. Secondly, superposition manifests through the diversity of voices and meanings inherent in the dictionary format. The entry juxtaposes definitions: race, nation, people; the world excluding Romans; the human race; country; class or kind; clan or family; and even herd, flock, hive (Carson, 2010, “*gentes*” entry, ll. 3–13). No meaning is prioritized over the others. Rather, they exist concurrently. The term “therefore” is poised within multiple semantic interpretations simultaneously. This complexity undermines obvious distinctions. The phrase can refer to both human societies and animal assemblages, such as a herd or a hive (Carson, 2010, “*gentes*” entry, l. 13). The idiomatic terms featured in the entry such as “*longe gentium*” (to the ends of the earth) and “*minime gentium*” (surely not) convey further spatial and rhetorical connotations (Carson, 2010, “*gentes*” entry, ll. 10–11). The item does not restrict interpretation; rather, it proliferates it. This composition embodies the extensive polyphonic texture of *Nox*, wherein Carson's voice coexists with Latin definitions, translations, archival excerpts, and personal contemplations. In this complex framework, the brother emerges as a multifaceted entity: he is concurrently biological relative, an unfamiliar individual, and a presence conveyed through language and interpretation.

The observer effect arises from the imposition of subjectivity on what seems to be an objective dictionary entry. Dictionaries typically reflect objectivity and authority. However, when Carson isolates and amplifies this lexical entry within a memorial book, its significance begins to transform. Terms like “mankind” or “country... in the world” convey an impersonal tone (Carson, 2010, “*gentes*” entry, ll. 6–10). Within the context of grief, they evoke profound inquiries on belonging, distance, and loss. Spatial phrases such as “at the ends of the earth” reflect the emotional and physical distance that existed between Carson and her brother throughout his life (Carson, 2010, “*gentes*” entry, l. 10). The term “the rest of the world apart from [Romans]” delineates a divide between insiders and outsiders (Carson, 2010, “*gentes*” entry, l. 6). This divergence inside *Nox* can be interpreted as a commentary on remoteness. The mourning sister the observer redefines the significance of the lexical entry based on its contextual usage. The act of researching the term *gens* does not merely yield a definition; it alters meaning beneath the weight of sorrow.

The "gentes" article illustrates the interplay between form and spirit in Nox through these interconnected actions. The paratactic collection of meanings signifies entanglement by connecting language and cultural traditions. The collection of definitions results in superposition, enabling the coexistence of many meanings concurrently. The positioning of the entry within a personal elegy illustrates the observer effect, when subjective sorrow alters seemingly objective language. Carson demonstrates that language may serve as both an archive and an empty space as well as a legacy and a source of alienation. The term *gens* transcends mere kinship definition; it evaluates it through the fundamental design of the lexicon.

Valeo

In Nox, the "valeo" section does not convey a conventional narrative with incidents. Rather, it functions similar to a dictionary entry that gradually evolves into an emotional contemplation. It originates from the Latin term *valeo*, signifying "to be strong," "to be healthy," or "to have power." It provides various interpretations of the term, encompassing concepts of strength, control, and farewells. As these meanings accumulate, we start to see a form of progression. The term initially connotes vitality, resilience, and wellness. However, it progressively transitions towards frailty, decline, and mortality. The connotations associated with farewell, such as "goodbye" or departing from the deceased, render the tone more somber. The passage illustrates a transition in themes: from strength to weakness, from existence to absence.

Simultaneously, it demonstrates that language cannot entirely elucidate grief. The dictionary form serves as a straightforward yet potent means of conveying the speaker's emotions of loss and perplexity. In Nox, the "valeo" section presents several interconnected themes like strength, loss, and language. The term *valeo* signifies "to be strong" or "to be healthy," yet the poem juxtaposes these meanings with concepts of farewell and mortality. This indicates that human resilience is inherently delicate in the face of loss. A primary theme is that language is insufficient. Although the poem presents numerous interpretations of the word, it fails to elucidate the matter. Rather, it demonstrates that language cannot effectively articulate emotions, particularly sorrow. A significant theme is absence and grief. The definition of the term gradually shifts from "being well" to "saying goodbye," indicating that life constantly progresses towards loss. This renders language a realm where presence and absence coexist simultaneously.

The poem interrogates the theme of power. It posits that strength be it physical, emotional, or linguistic is inherently unstable and susceptible to disintegration. Ultimately, a motif of ambiguity and unpredictability emerges. The dictionary-like structure illustrates the speaker's attempt to comprehend concepts through language, yet instead of obtaining definitive answers, they encounter further uncertainty. The poem depicts sadness as a complex phenomenon that is difficult to comprehend and even more challenging to articulate through language. The "valeo" entry in Nox examines these themes through its unique structure and techniques. The dictionary entry, commencing with "*valeo valere valui valitum*" (Carson, 2010, l. 2), originally implies clarity and consistent interpretation. This expectation is complicated as the definitions traverse divergent meanings, from strength "to be physically powerful, have strength" (Carson, 2010, l. 4) to death and farewell, exemplified by "Goodbye!" and "in taking leave of the dead" (Carson, 2010, ll. 6–7). This contrast highlights a fundamental theme: human resilience is tenuous, and existence is inextricably linked to loss. The integration of various,

occasionally conflicting interpretations illustrates the unsuitability of language, revealing that words cannot entirely encapsulate emotional reality.

The instability of the entry is formally increased by fragmentation and parataxis. Definitions are provided as an extensive list delineated by semicolons, without a clear hierarchy, as illustrated by “to be physically powerful, have strength; to a task: have sufficient strength for: (of plants) to be vigorous, robust: (of material objects) to be tough or stout” (Carson, 2010, ll. 4–6). This reflects the speaker’s disjointed cognitive flow during mourning. The recurrence of infinitives “to be... to have... to mean... to avail, succeed” (Carson, 2010, ll. 4–12) establishes a catalog-like cadence that mirrors an unfulfilled quest for meaning. The recurring root “val-” in “valeo valere valui valitum” and “valeat” (Carson, 2010, ll. 2–12) serves as a subtle resonance, indicating continuity while simultaneously highlighting the volatility of language. The composition intentionally omits conventional rhyme and meter. Passages like “to be physically powerful, have strength; to a task: have sufficient strength for...” (Carson, 2010, ll. 4–5) exhibit an erratic flow, resulting in a prose-like rhythm instead of lyrical harmony. Pauses induced by punctuation specifically semicolons and parentheses, e.g., “(as a formula at the beginning of letters): (in asseverations): The phrase ‘Goodbye! (at the close of a letter)’” (Carson, 2010, ll. 5–6) generate a fragmented, irregular rhythm that reflects emotional instability.

The poem illustrates a semantic transition from concrete to abstract meanings, exemplified by the progression from “to be vigorous, robust” (Carson, 2010, l. 4) to “to mean, signify” (Carson, 2010, l. 12). This shift, underscored by the Latin phrase “quid amor valeat nesciam” (“why love prevails I have no idea”) (Carson, 2010, l. 10), emphasizes the speaker’s ambiguity and illustrates that even established linguistic and cultural frameworks cannot entirely elucidate loss. The poem’s tactics dictionary form, fragmentation, parataxis, repetition, semantic shift, and punctuation-induced halting rhythm extend beyond merely supporting its topics. They engage in the expression of grief, transforming language into a realm where presence and absence, strength and weakness coexist. This entry embodies grieving as an emotional and linguistic battle wherein meaning remains unresolved (Carson, 2010).

In Nox, Anne Carson’s valeo / vale entry offers a definitive framework for implementing entanglement, superposition, and interpretive subjectivity as tangible literary activities. The entry does not serve merely as a neutral lexicographical resource; instead, it generates meaning through relational networks, semantic simultaneity, and reader-dependent activation, all of which may be proved through meticulous textual analysis. In the valeo/vale entry of Nox, Anne Carson creates meaning through relational patterns that parallel concepts from quantum theory when interpreted through postmodern literary frameworks. The initial connection manifests through entanglement and intertextuality. The lexical reference “[cf. Ir flaith ‘sovereignty;’ OHG waltan ‘to govern’]” contextualizes the Latin verb within a framework of linguistic and historical associations (Carson, Nox, Valeo entry, Line 2). The significance of valeo is not independent; it arises from its connections to Irish and Old High German cognates that link strength with political power and control.

This relationship framework extends through ceremonial and literary expressions such as “Farewell! (at the end of a correspondence)” and “(in bidding farewell to the deceased)” (Lines 9–10). These expressions link the term to epistolary traditions, burial rites, and theatrical discourse. The passage also reflects Catullus's elegy in Catullus 101, where “vale” finishes the poem. Carson's employment of the phrase serves concurrently as both a translation and a reimagining of a classical elegy, while lamenting her deceased brother. Meaning arises from intertextual connections, where the current text is inextricably linked to prior literary and cultural traditions. A secondary relational structure emerges through superposition and the diversity of voices. The entry conveys meanings via parataxis,

enumerating concepts without a hierarchical structure: “to possess physical power and strength... (of plants) to exhibit vigor and robustness; (of material objects) to be durable or sturdy” (Lines 3–5). Human vitality, plant development, and material durability reside within the same semantic domain.

Further interpretations encompass social, medical, and political contexts, such as “to be in good health, to be well (in greetings)” (Line 6) and “(of drugs) to exhibit potency; to prevail” (Lines 12–13). These definitions occur concurrently rather than establishing a singular, stable meaning. The farewell phrase “Goodbye! (in bidding farewell to the deceased)” (Line 10) heightens this tension, as it is situated within a term whose fundamental meanings signify vitality and strength. Consequently, strength and death inhabit the same language domain. The entry incorporates the Latin phrase “quid amor valeat nesciam” (Line 14), which brings an additional lyrical voice into the lexicographic framework. The book generates a semantic state akin to superposition through the aggregation of voices dictionary definitions, ceremonial expressions, classical poetry, and personal elegy where several meanings coexist simultaneously without converging into a singular interpretation.

The third relational dynamic arises from the observer effect and interpretive subjectivity. The text clearly underscores linguistic constraints in the assertion “parum valent Graeci verbo the Greeks have no precise word for this (but we call it ‘night’)” (Line 16). This statement indicates that meaning is contingent upon language and cultural frameworks rather than universal definitions. The recurrent phrase “Goodbye!” (Line 9) may initially seem like a neutral correspondence formula. Nonetheless, when readers acknowledge its association with Catullus 101 and Carson’s elegy for her brother, the line gains a funeral significance. The phrase “quid amor valeat nesciam” (Line 14) may be construed as a contemplation of love’s might, an articulation of emotional ambivalence, or a nuanced irony within a discourse about strength and legitimacy.

The text alone does not dictate which interpretation should prevail. Interpretation is contingent upon the reader’s contextual information and interpretative focus. The reader acts as an observer, with their interpretive stance influencing the discernible meaning. Collectively, the valeo entry illustrates how Carson converts lexicography into a variant of relational elegy. Intertextual entanglement associates the term with classical poetry, ritualistic language, and linguistic heritage. Semantic superposition enables the simultaneous coexistence of several definitions and voices via a paratactic framework. Interpretive subjectivity, akin to the observer effect, arises as readers engage certain meanings through their contextual comprehension. By concluding an elegy with a term that denotes both vigor “to be physically powerful” (Line 3) and a farewell to the deceased (Line 10), Carson maintains the unresolved conflict between existence and bereavement. The term does not conclude grief; rather, it upholds variety and relational significance.

Findings and Recommendations of this Study

This study’s findings indicate that the utilization of quantum theory specifically the principles of entanglement, superposition, and the observer effect offers a coherent and effective analytical framework for reading modern poetry, especially the works of Anne Carson. The findings affirm that the poetic meaning in Carson’s works is not a set or stable construct but arises through dynamic, relational, and interpretive processes. The research demonstrates that entanglement accurately elucidates the structural and semantic interrelations in Carson’s poetry. Textual elements, including historical references, personal memories, philosophical discourse, and emotional fragments, are not presented as standalone pieces but as interdependent components. Meaning emerges from their

connection rather than from linear advancement, illustrating that poetic form operates as a relational network rather than a cohesive entity.

The concept of superposition is seen in the simultaneous existence of various interpretation options inside a singular poetic construction. Carson's employment of fragmentation, polyphony, and genre-blending facilitates the coexistence of different meanings, voices, and views without converging into a unique interpretation. This affirms that ambiguity and diversity are not constraints of poetic language but fundamental characteristics of its meaning-making process.

Additionally, the study underscores the importance of the observer effect, demonstrating that the reader actively and fundamentally influences the construction of meaning. Interpretation is generated by the relationship between the reader and the text, rather than being external to it. Carson's recurrent employment of rhetorical inquiries, open-ended formats, and narrative self-awareness underscores the notion that meaning is transitory and dependent on the reading process.

Furthermore, the findings suggest that the connection between quantum theory and postmodern poetics is not simply figurative but is fundamentally and epistemologically established. Both theories underscore indeterminacy, relationality, and the volatility of meaning. Thus, the study effectively illustrates that quantum poetics can operate as a systematic interdisciplinary framework rather than merely a figurative analogy. The qualitative methodology utilizing close reading effectively translates abstract quantum notions into practical analytical instruments. This method facilitates a profound comprehension of the generation, suspension, and transformation of meaning within poetic discourse.

Recommendations

In consideration of these findings, the study presents multiple recommendations for subsequent research and literary analysis:

Scholars are urged to broaden the application of quantum poetics beyond Anne Carson's oeuvre to encompass a more extensive array of contemporary and postmodern poets. This would assist in evaluating the overarching validity and adaptability of the framework across diverse literary genres and cultural situations.

Secondly, subsequent study should focus on establishing a more systematic and organized approach to incorporating scientific notions into literary analysis. This study provides a conceptual foundation; however, additional efforts are required to enhance analytical techniques and guarantee methodological consistency.

Third, interdisciplinary research ought to investigate the correlation between quantum theory and other literary genres, including narrative fiction, drama, and digital literature, to ascertain whether analogous patterns of relational and indeterminate meaning arise across diverse forms.

Fourth, academics are encouraged to explore the relationships between quantum poetics and other theoretical frameworks, especially reader-response theory, deconstruction, and cognitive poetics, to develop a more comprehensive model of meaning generation.

Fifth, it is advised that subsequent studies include comparison analyses among other authors or traditions to elucidate the variability of quantum-like structures of meaning across literary contexts. This study underscores the necessity of upholding epistemic rigor while applying scientific theories within the humanities. Quantum concepts must not be simplified to mere metaphors; instead, they

should be utilized meticulously as organized analytical instruments that enrich, rather than obscure, literary interpretation.

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