

ORIGINAL ARTICLE OPEN ACCESS

The Power of Brevity: Creativity Judgments in English Language Haiku and Senryu Poetry

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ABSTRACT

Understanding how creativity is judged in brief, structured texts is essential for exploring aesthetic and emotional engagement in minimalist art forms. Haiku and Senryu, two concise poetic genres, provide a unique lens to investigate how creativity is perceived under constraints of brevity. This study examines how readers' subjective experiences of poems, their personality traits, and the structure of their semantic memory networks influence creativity judgments. Fifty-one participants evaluated 140 English-language poems (70 Haiku and 70 Senryu) and 70 nonpoetic control texts in a laboratory experiment. Participants rated each stimulus on aesthetic appeal, vivid imagery, emotionality, originality, and overall creativity. They also completed seven personality assessments, and their semantic memory networks were estimated by a verbal fluency task. We found originality to be the strongest predictor of creativity in both poetic genres. However, the influence of aesthetic appeal and emotionality varied: Haiku balanced aesthetic beauty and emotional resonance, while Senryu prioritized emotional resonance. Personality traits, including the vividness of visual and auditory imagery, significantly influenced creativity judgments. Participants who favored Haiku exhibited more efficient and flexible semantic memory networks. This study provides novel insights into how creativity is evaluated in constrained poetic forms, offering broader implications for creativity in structured art.

1 | Introduction

To see a world in a grain of sand and heaven in a wild flower

Hold infinity in the palm of your hand and eternity in an hour.

William Blake (1863)

This quote by Blake illustrates the power of “smallness” to evoke a “bigger” reality—a theme deeply rooted in the realm of poetry. Shakespeare echoed this sentiment with the adage, “brevity is the soul of wit” (Shakespeare 1603/1992, 2.2.90). Brevity

demands precision in word choice, requiring each word to contribute meaningfully to the poem's overall impact. In today's fast-paced world, where attention spans are short and judgments are made rapidly, poetry—especially in its shortest forms—offers a unique lens through which to study how creativity is perceived within strict constraints. Haiku and Senryu, two minimalist Japanese poetic forms, challenge both poets and readers to engage with complex ideas and emotions using a limited number of words. This study investigates how readers evaluate creativity in such constrained forms and examines the role of individual differences in shaping these judgments. By exploring the cognitive processes and personality traits that underlie these evaluations, this research contributes to an understanding of poetry's creative essence and the influence of structured brevity on creativity judgments across broader domains.

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Creativity is commonly defined as the ability to produce original and unusual ideas, or to make something new or imaginative (The Cambridge Academic Content Dictionary 2020). Over the past seven decades, researchers in psychology have consistently described creativity as the ability to generate something new, different, and innovative, often with practical or functional value (Guilford 1950; Stein 1953; Barron 1955; Kaufman 2016). Although creativity remains a debated and multifaceted concept, the “standard definition” (Runco and Jaeger 2012) asserts that creativity requires both novelty (originality) and usefulness (effectiveness). However, the subjective nature of creativity judgments adds complexity to evaluating such a nebulous construct, especially when individual perceptions play a significant role.

Creativity and aesthetics in art have been extensively studied in psychology research. However, poetry, despite being one of the most creative expressions of language, has received less attention compared to other art forms like paintings (Cupchik et al. 2009; Hagtvedt et al. 2008; Bhattacharya and Petsche 2002, 2005b; Chatterjee 2003; Bhattacharya 2009; Augustin et al. 2011; Adamaszek et al. 2022; Luft et al. 2019), music (Koelsch and Siebel 2005; Koelsch 2011, 2014; Bhattacharya et al. 2001; Bhattacharya and Petsche 2005a; Strait et al. 2009; Marin and Bhattacharya 2010; Bhattacharya and Lindsen 2016; Ruiz et al. 2011; Jackendoff and Lerdaahl 2006; Zioga et al. 2020), and films (Hanich et al. 2014; Plucker et al. 2009). Few studies have explored the role of emotional responses and the associated aesthetic pleasure in assessing poetic creativity (Chaudhuri et al. 2024a, 2024b, 2024c). For example, Chaudhuri et al. (2024a) found aesthetic appeal, surprise, and felt emotional valence as predictors of poetic creativity. However, their study focused on a broad range of English poems without controlling for poem length. In a contemporary world characterized by limited attention spans and rapid judgments, how do readers evaluate creativity in brief, structured literary texts? The present study addresses this question by examining Haiku and Senryu—two structurally similar but thematically distinct poetic genres.

Haiku, often described as the shortest poetic genre in the world (Ross 2007), consists of three lines, arranged in a 5-7-5 syllabic structure, and typically contains a *kigo* (seasonal word) and a *kireji* (cutting word), which add emotional depth and structure (Ueda 1963; Ross 2007; Iida 2008; Cuddon 2012; Trumbull 2012). Senryu, which evolved from Haiku in the 18th century, shares the same structure but diverges in content, focusing on human nature, humor, and satire, and generally lacks *kigo* and *kireji* (Opler and Obayashi 1945; Giroux 1989). Thus, Haiku is considered the poetry of nature while Senryu, the (satiric) poetry of man (Blyth 1964). Short-form poetry, such as Haiku, particularly English Language Haiku (ELH), has become a preferred focus in empirical research due to its structural simplicity and ability to evoke profound emotional engagement (Thomas et al. 2017; Belfi et al. 2018; Mehl et al. 2023; Hitsuwari and Nomura 2022b, 2022a; Hitsuwari et al. 2023). ELH maintains the essence of traditional Haiku while employing imagistic language to convey natural or seasonal experiences (Higginson and Harter 1985; Rowland 2013), offering a structured yet flexible medium ideal for studying the reception of poetic texts. The Haiku format, with its concise 3-lined, 5-7-5 syllabic structure, allows for controlled experimentation. Its structural uniformity contrasts

with its content variability, making it suitable for systematic analysis (Thomas et al. 2017; Geyer et al. 2020). Furthermore, Haiku's minimal use of linguistic resources, reliance on common language, and focus on vivid imagery rather than poetic jargon engage a rich array of mental functions, making it ideal for empirical psychological studies (Geyer et al. 2020; Hitsuwari and Nomura 2022b; Pierides et al. 2017). A study on haiku and sonnets has shown that the vividness of imagery is the strongest predictor of aesthetic appeal, followed by perceived valence and arousal (Belfi et al. 2018). Similarly, another study on haiku has reported that felt valence and imagery vividness predict its aesthetic appeal, with felt valence partially mediating the effect of imagery vividness on aesthetic appeal (Hitsuwari and Nomura 2022b). However, the role of factors like emotional responses and aesthetic pleasure in assessing the creativity of such short poetic forms remains underexplored.

The present study investigates creativity judgments in Haiku and Senryu, examining how thematic content shapes these evaluations. Recognizing that cognitive and emotional states, mediated by contextual and individual differences, shape poetry judgments (Jacobs 2015a, 2015b; Thomas et al. 2017), we adopted three research pathways: (1) examining the effects of aesthetic appeal, emotional state of being moved, vivid imagery, and originality on creativity judgments, using nonpoetic control texts as a baseline; (2) exploring the influence of personality traits, such as openness, intellect, curiosity, vivid visual and auditory imageries, mindfulness, and aesthetic responsiveness; and (3) analyzing how the structural organization of the semantic memory network, crucially involved in interpreting and evaluating creative texts (Shi et al. 2017; Hua et al. 2015), contributes to genre-based creativity preference. By exploring these pathways, this study provides insights into the cognitive and emotional processes underlying creativity judgments in constrained poetic forms.

The following section discusses the potential predictors, individual differences, and the role of the semantic network in shaping creativity judgments.

1.1 | Potential Predictors of Poetic Creativity

1.1.1 | Aesthetic Appeal

Aesthetic appeal is a critical dimension in evaluating creative works, reflecting perceptions of beauty, elegance, and style (Besemer and Treffinger 1981; Besemer and O'Quin 1986; Leder et al. 2012, 2004). Research has shown that aesthetic appeal plays a pivotal role in judging creativity across various forms of art, including visual art (Tinio 2013; Cupchik et al. 2009; Bao et al. 2016; Hagtvedt et al. 2008), music (Silvia et al. 2015; Koelsch 2014; Reybrouck and Brattico 2015; Müller et al. 2010; Zioga et al. 2020; Belfi 2019), films (Hanich et al. 2014; Silvia and Berg 2011; Plucker et al. 2009), and poems (Belfi et al. 2018; Hitsuwari and Nomura 2022b; Hitsuwari and Nomura 2023; Kraxenberger and Menninghaus 2016; Obermeier et al. 2013; Obermeier et al. 2016; Scharinger et al. 2023; Jacobs 2017; Hitsuwari and Nomura 2022a; Mehl et al. 2023; Chaudhuri et al. 2024a; Chaudhuri et al. 2024b). For Haiku, studies suggest that vivid imagery and felt emotion strongly predict its aesthetic

appeal (Belfi et al. 2018; Hitsuwari and Nomura 2022b). Haiku's focus on nature—often associated with inherent beauty and aesthetics (Parsons 2002; Carlson 1984)—suggests that aesthetic appeal may play a more prominent role in creativity judgments for Haiku than for Senryu. Therefore, we predicted that aesthetic appeal would significantly influence creativity judgments in both genres, with a stronger impact observed in Haiku.

1.1.2 | Emotional Resonance: Psychological State of *Being Moved*

Poetry evokes deeply pleasurable emotional responses, such as chills and goosebumps (Wassiliwizky et al. 2017). The evaluation of ideas involves an active interaction between the evaluator and the product, influenced by the evaluator's emotional state (Mastria et al. 2019). Emotional appraisals are known to influence aesthetic experiences (Chatterjee and Vartanian 2014; Leder et al. 2004; Lüdtkke et al. 2014). For Haiku, both perceived valence and arousal (Belfi et al. 2018), as well as felt emotional valence (Hitsuwari and Nomura 2022b), predict its aesthetic appeal.

In this study, we chose “being moved” as a measure of emotional resonance due to its distinct psychological construct (Menninghaus et al. 2015), which differs from traditional two-dimensional affective states such as valence (positive or negative) and arousal (low or high). Historically, “being moved” has been conceptualized as a “mixed sentiment of suffering and the pleasure taken in this suffering” (Schiller 1792; see Menninghaus et al. 2015). In psychological research, it is recognized as an emotion frequently evoked by art and meaningful experiences (Frijda 2006; Konecni 2005; Scherer 2005). Previous studies have shown that “being moved” encompasses multifaceted dimensions, including appraisals of pleasantness, certainty, suddenness, and importance, as well as action-readiness states like approaching and attending (Frijda et al. 1989). Physiological correlates, such as tears (Scherer et al. 2001) and piloerection (Benedek and Kaernbach 2011) have been linked to this emotion. Kuehnast et al. (2014) examined the conceptual structure of “being moved” through a word-association task, identifying joy and sadness as core emotional components often elicited by significant life events and art. Poetry, as a form of creative verbal expression, relies on lexical items that reflect underlying conceptual representation (Jackendoff 2003). Therefore, we adopted “being moved” as a key measure of emotional resonance. We expected that being moved would predict creativity judgments for both Haiku and Senryu, with a stronger impact in Senryu due to its thematic focus on human experiences and emotional depth.

1.1.3 | Vivid Imagery

Reading is an imaginative process, in which mental imagery mirrors perception (Collins 1991). Research has shown that vivid mental imagery across sensory domains enhances both aesthetic and emotional evaluations (Holmes and Mathews 2005; Holmes et al. 2006). In a recent study, we showed that vivid imagery significantly boosts perceived poetic creativity, with poems rich in evocative imagery judged as more creative (Chaudhuri et al. 2024b). In Haiku specifically, vivid imagery has been

identified as the strongest predictor of aesthetic appeal (Belfi et al. 2018), with its effect mediated by felt emotion (Hitsuwari and Nomura 2022b). Given Haiku's distinct use of imagery, sound, and nature-themed focus (Ross 2007), we expected that vivid imagery would be a significant predictor of creativity judgments for Haiku.

1.1.4 | Originality

The “standard definition” of creativity asserts that creativity requires both novelty (originality) and usefulness (effectiveness) (Runco and Jaeger 2012). Originality, more than usefulness, is consistently linked to perceived creativity across domains, including ideas (Runco and Charles 1993; Diedrich et al. 2015; Acar et al. 2017; Lloyd-Cox et al. 2022), product designs (Han et al. 2021), advertisements (Storme and Lubart 2012), and poetry (Chaudhuri et al. 2024b). While originality is a critical component of creativity, it may not encompass the entirety of creative evaluation, as factors such as aesthetic appeal and emotional resonance may also play significant roles (Chaudhuri et al. 2024a). We expected that originality would strongly predict creativity judgments for both Haiku and Senryu, highlighting its foundational role in the perception of creativity in these poetic forms.

1.2 | Individual Differences

The essence of a poem's impact lies in its ability to connect with readers on a deeply personal level. However, readers' interpretations and evaluations of the same poem often differ due to individual differences in knowledge, perceptual abilities, and personal traits. These individual differences introduce variability in the creativity evaluation process, underscoring the importance of individual differences in the creative evaluation process (McCrae 1987; Feist 1998; Batey and Furnham 2006; Tan et al. 2019). Openness and intellect, in particular, have shown robust associations with almost all forms of creativity assessment (Feist 1998; Batey and Furnham 2006; Ivcevic and Brackett 2015; Kaufman et al. 2016; Karwowski and Lebuda 2016; Puryear et al. 2017; Lloyd-Cox et al. 2022; Chaudhuri et al. 2024c). In this study, we expected both traits to significantly influence creativity judgments of Haiku and Senryu.

Openness, often linked to a greater emphasis on originality in creativity judgments (Lloyd-Cox et al. 2022), is a key trait of the “artistic personality” (Chamorro-Premuzic et al. 2009; Furnham and Walker 2001). We predicted that higher openness would enhance the relationship between both originality and aesthetic appeal with creativity across both genres. Intellect, associated with abstract thinking and semantic processing (Oleynick et al. 2017; Mussel 2013), was expected to be more strongly linked with emotionality in Senryu, as this genre often incorporates humor, wit, and irony (Worcester 1940; Ruch et al. 2018).

Curiosity, the desire to explore and acquire new knowledge (Berlyne 1966; Litman 2005; Litman and Spielberg 2003), is another trait associated with creativity (Gross et al. 2020; Schutte and Malouff 2020). While we did not make specific predictions, we explored whether higher levels of curiosity would

strengthen the relationship between aesthetic appeal and creativity in Haiku (Chaudhuri et al. 2024c).

Mental imagery plays a key role in visual creativity (Finke et al. 1996). Visual imagery, often described as “seeing with the mind’s eye,” involves generating mental representations in the absence of external visual stimuli (Moulton and Kosslyn 2009; Kosslyn et al. 2001, 635). The vividness of visual imagery refers to the clarity and detail of these mental pictures and is commonly measured by the Vividness of Visual Imagery Questionnaire (VVIQ -Marks 1973b). The visual imagery vividness has been linked to creativity (Finke 1996; Palmiero et al. 2011; Kozhevnikov et al. 2013), though the findings on this relationship have been mixed (LeBoutillier and Marks 2003). Auditory imagery, defined as “the introspective persistence of an auditory experience” (Intons-Pererson 1980, 46), has been linked to silent reading, where inner speech simulates the perceptual aspects of actual speech (Abramson and Goldinger 1997). Given Haiku’s nature-oriented focus and Senryu’s expressive depiction of human nature, we anticipated that both visual and auditory imagery traits would influence creativity assessment for both genres.

Mindfulness, the ability to remain attentive to the present moment (Brown and Ryan 2003), has also been linked to creativity, both directly and indirectly (De Dreu et al. 2012; Chiesa et al. 2011; Langer 2020; Lebuda et al. 2016). Given that Haiku allows readers to experience a “haiku moment” through minimalistic words, a process that inherently requires mindfulness, and that the satire and humor in Senryu also demand mindful attention, we expected that trait mindfulness would influence the creativity judgment of both genres.

Finally, aesthetic responsiveness, a trait reflecting an individual’s capacity to respond to aesthetic stimuli (Schlotz et al. 2021), has been linked to higher engagement with art (Schlotz et al. 2021). Given Haiku’s connection to both nature and beauty, we expected that aesthetic responsiveness would moderate the creativity prediction for Haiku more than Senryu.

1.3 | Semantic Memory Network

The associative theory of creativity (Mednick 1962) suggests that the structure of semantic memory influences creative thought. Creative individuals tend to have a richer, more flexible associative networks, characterized by flatter hierarchies with numerous weakly related associations, while less creative individuals have steep hierarchies with fewer, more common associations (Mednick 1962; Kenett et al. 2014; Benedek et al. 2017). Semantic memory encompasses our general knowledge of the world, including concepts, facts, and word meanings (Tulving 1972; Rogers et al. 2004; Patterson et al. 2007; Jones and McRae 2013). Semantic networks represent this knowledge as interconnected nodes (concepts) and edges (relationships between concepts) (Kenett et al. 2014; Zemla et al. 2020). Key network parameters include: ASPL (average shortest path length), CC (clustering coefficient), and Q (modularity). Higher creativity is associated with higher CC, lower ASPL, and lower Q, indicating a more interconnected

and flexible network (Kenett et al. 2014; Ovando-Tellez et al. 2022; Benedek et al. 2017). In this study, we investigated such network metrics to compare the semantic memory structures of participants who favored Haiku over Senryu. We predicted that differences in semantic network organization might reflect distinct cognitive styles that contribute to genre-specific preferences in creativity judgments.

2 | Methods

2.1 | Participants

We conducted an a priori power analysis using G*Power 3.1 (Faul et al. 2007) for a repeated measures ANOVA with one group and three repeated measurements (Haiku, Senryu, and Control). We selected a Type I error rate of 0.05 and a power of 0.80, consistent with conventional statistical practices in psychological and experimental research (Howell 1992). A correlation coefficient of 0.5 among repeated measures was assumed to reflect a moderate effect size (Cohen 1988; Fritz et al. 2012). The effect size was determined using the “Direct method” in G*Power, with a partial η^2 of 0.05 which corresponds to the effect size $f = 0.229$ —a small-to-medium effect size based on prior research in creativity and cognitive (Ma 2009; Cohen 1988). We assumed perfect sphericity ($\epsilon = 1$) which indicated that a minimum of 33 participants was required to achieve a power of 0.81. A more conservative nonsphericity correction value ($\epsilon = 0.75$) indicated a requirement of 40 participants. With 51 participants ($N = 51$; 16 male, 28 female, 7 nonbinary; age $M = 27.14$, $SD = 4.55$ years), the present study exceeded both requirements, ensuring adequate statistical power while accounting for potential violations of sphericity. While adequate power strengthens the reliability of observed effects, we acknowledge that replicability depends on additional factors beyond statistical power (Miller 2009). All participants provided written consent to take part in the experiment and were provided with monetary compensation of 30 GBP for their time. Ethical approval was granted by the local Ethics Committee of the Department of Psychology, Goldsmiths, University of London.

2.2 | Stimuli

We selected 70 ELH, 70 English language Senryu as experimental stimuli, and 70 nonpoetic English language texts as control stimuli. The Haiku and Senryu were selected from award-winning pieces, including the first- and second-place winners in competitions like the Haiku Society of America Haiku Award in memory of Harold G. Henderson (1976–2022), the British Haiku Society Awards for Haiku (2002–2021), and the Haiku Society of America Senryu Award in memory of Gerald Brady (1988–2022). We chose award-winning poems to ensure the selected poems truly reflected genre-specific characteristics and were best representative of contemporary English-language Haiku and Senryu. We also ensured thematic diversity and high literary quality by including a diverse range of topics, tones, and imagery within each genre. To minimize potential bias, all stimuli were presented without identifying information, such as author names or award status. Control texts were designed to structurally match the normative 3-line, 5-7-5 syllabic structure

of Haiku and Senryu but were devoid of poetic or emotional content. These control texts were either selected from newspapers or generated using AI-based language models. For the AI-generated texts, prompts were crafted to produce exactly 3-line, 5-7-5 syllabled texts in a formal, nonpoetic tone but devoid of emotive language. This approach ensured that the control texts served as a neutral baseline for comparison. All stimuli are available on the Open Science Framework (OSF) at: https://osf.io/sm864/?view_only=47eabba4c3764461964c048c3adc682c.

2.3 | Procedure

2.3.1 | Measures of Individual Differences

The present study was part of a larger neuroscientific experiment involving EEG (not reported here). Before the EEG recording, to assess individual differences, participants completed several self-reported questionnaires measuring personality traits including openness and intellect (DeYoung et al. 2007), curiosity (Litman and Spielberger 2003), vividness of visual (Marks 1973a) and auditory imagery (Halpern 2015), mindfulness (Brown and Ryan 2003), and aesthetic responsiveness (AReA: Schlotz et al. 2021), and finally demographics. Additionally, to assess the semantic memory network, participants performed a verbal fluency task, writing as many animal names as possible within 3 min (Zemla and Austerweil 2018).

Openness and Intellect were assessed using a 20-item scale (DeYoung et al. 2007), with 10 items assessing each trait. Openness evaluates an individual's artistic sensitivity and aesthetic appreciation (Chamorro-Premuzic et al. 2009; Furnham and Walker 2001), while intellect assesses abstract thinking and cognitive engagement with complex ideas (Oleynick et al. 2017; Mussel 2013). Openness is robustly linked to creative thinking and artistic engagement (Batey and Furnham 2006; Feist 1998) and show high internal consistency ($\alpha=0.78-0.85$; DeYoung et al. 2007). Participants responded on a 7-point Likert scale (1=strongly disagree, 7=strongly agree). Example items include "I believe in the importance of art" for openness and "I like to solve complex problems" for intellect.

Curiosity was assessed using a 10-item scale (Litman and Spielberger 2003), which evaluates the tendency to seek out and explore novel information. The scale has demonstrated high reliability ($\alpha=0.71-0.85$; Litman and Spielberger 2003), and a meta-analysis found that curiosity is positively associated (mean weighted effect size of $r=0.41$) with creativity (Schutte and Malouff 2020). Participants responded on a 7-point Likert scale (1=strongly disagree, 7=strongly agree), with example items such as "I enjoy learning about subjects that are unfamiliar."

Vividness of visual imagery was assessed by a 16-item Vividness of Visual Imagery Questionnaire (VVIQ: Marks 1973b), a widely used tool in imagery research. The VVIQ assesses the ability to generate clear and detailed mental images, with excellent reliability ($\alpha > .9$) (Marks 1973a). Participants were asked to imagine specific scenarios, such as a frequently seen relative or friend, and rate the vividness of their mental images on a 7-point Likert scale (1=no image at all, 7=perfectly clear and vivid as the real experience).

Vividness of auditory imagery was assessed using the Bucknell Auditory Imagery Scale (BAIS-V: Halpern 2015), referred to here as AVIQ (similar to VVIQ). The 14-item scale evaluates the clarity of auditory mental representations and has demonstrated good reliability ($\alpha=0.83$). Participants were asked to imagine specific auditory scenarios, such as the sound of a trumpet at the beginning of the song "Happy Birthday" and rated their auditory imagery vividness (AVIQ) on a 7-point Likert scale (1=no image at all, 7=as vivid as the actual sound).

Trait mindfulness was assessed using the 15-item Mindful Attention Awareness Scale (MAAS; Brown and Ryan 2003), which captures present-centered attention and awareness. The MAAS has demonstrated high-reliability estimates (>0.80 ; Brown and Ryan 2003), and is positively associated with self-regulation and well-being (Brown and Ryan 2003; Osman et al. 2016). Participants responded on a 7-point Likert scale (1=almost always, 7=almost never), with an example item being, "I find it difficult to stay focused on what's happening in the present."

Aesthetic responsiveness was assessed using the AReA scale (Schlotz et al. 2021), a 12-item scale evaluating individual sensitivity to aesthetic experiences across domains such as music, visual art, and poetry. The AReA scale has high internal reliability ($\alpha > 0.80$) (Silvia et al. 2024). Participants rated their responses on a 7-point Likert scale (1=never, 7=regularly), with example items such as "When viewing artistic works, I am impressed by their harmony."

The internal consistency reliabilities (Cronbach's alpha, α) of these scales in the current study were as follows: openness ($\alpha=0.74$), intellect ($\alpha=0.81$), curiosity ($\alpha=0.85$), VVIQ ($\alpha=0.94$), AVIQ ($\alpha=0.93$), mindfulness ($\alpha=0.81$), and AReA ($\alpha=0.89$). These values indicate good reliability for all scales.

2.3.2 | Main Experiment

During the main experimental task, participants silently read 210 stimuli (70 Haiku, 70 Senryu, 70 control) presented in 7 blocks, each block containing 30 stimuli. Both the block order and the order of trials within each block were randomized across participants. Each trial consisted of a 4-s fixation cross, followed by the visual presentation of a stimulus that lasted on the screen for 10s—5s for reading and 5s for contemplation, with a prompt for the latter shown on the screen. After this, participants were asked to rate the poem on five parameters: aesthetic appeal ("How aesthetically appealing is the poem?"), vivid imagery ("How vivid is the imagery?"), being moved ("How moved are you?"), originality ("How original is the poem?"), and creativity ("How creative is the poem?") using a 7-point Likert scale (1=very low to 7=very high). Instead of the traditional two-dimensional affective states, that is, valence and arousal, participants assessed their emotional state of being moved (termed as "being moved" throughout the paper), a distinct psychological construct which is "intensely felt responses" (Menninghaus et al. 2015, 12; see also Cullhed 2019). Of note, participants were not provided with explicit definitions of originality and creativity but were asked to rely on their own subjective experience (Amabile 1982). After each block, optional breaks were

provided. Figure 1 illustrates the schematic representation of a single experimental trial.

2.4 | Analysis

All statistical analyses were performed in R (Version 4.0.3; Bates et al. 2015). Following general data visualization, including descriptive statistics and internal consistency assessments, maximum likelihood linear mixed models (LMM) were conducted using the *lme4* package in R to identify the most significant predictors of creativity scores for Haiku, Senryu, and Control texts separately. Four potential predictors (aesthetic appeal, vivid imagery, being moved, and originality) were group-mean centered prior to hierarchical entry into the model to obtain clear estimates of within-group effects (Enders and Tofghi 2007). Predictors were entered in decreasing order of their partial correlation with the outcome variable, creativity. The predictors were treated as fixed effects, while participant intercepts were modeled as random effects. Model comparisons using model-fit criteria including the Akaike information criterion (AIC), Bayesian information criterion (BIC), the proportion of variation explained by fixed effects (R_m^2), likelihood ratio test, and corresponding *p*-values were used to identify the best-fitting models and the most significant predictors of creativity for each genre (Haiku, Senryu, and Control). To examine the moderating effects of personality traits on the significant predictors, we conducted separate linear mixed-effects models for each personality trait across Haiku, Senryu, and Control conditions. The interaction between predictors and personality traits was treated as fixed effects, with participant intercepts modeled as random effects. Data, including the R code, are available on the Open Science Framework (OSF) at: https://osf.io/sm864/?view_only=47eabba4c3764461964c048c3adc682c.

Additionally, we estimated semantic networks based on participants' verbal fluency responses. We followed the Semantic Network Analysis (SemNA) in R for preprocessing, estimating, and analyzing semantic networks (Christensen and Kenett 2023). For group-based semantic networks, we computed the Euclidean norms of response ratings for Haiku and Senryu using the following formula:

$$E_p = \text{sqrt} \sum_{i=1}^{70} \sum_{j=1}^5 R_{ij}^2$$

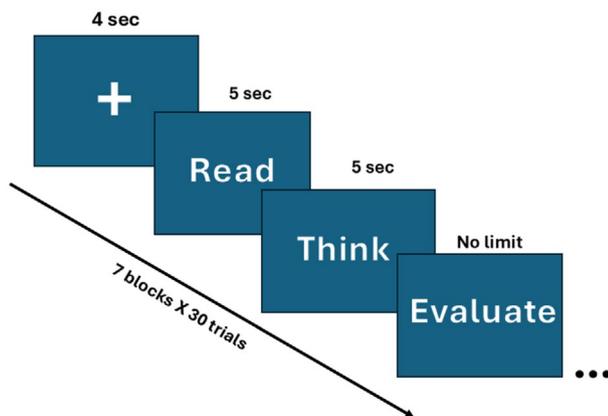


FIGURE 1 | Schematic representation of the experiment.

where E_p represents the comprehensive response of a participant for a particular genre. For each participant, we computed the difference score between Haiku and Senryu: $H(E_p) - S(E_p)$. We then estimated semantic networks for the low and high difference scores (H-S), representing groups that either preferred Haiku or Senryu. For a visual comparison of the two networks, we used the `compare.nets` function in *SemNet* in R, based on the Fruchterman-Reingold algorithm (Fruchterman and Reingold 1991), a force-directed graph method widely used in psychological and network science literature for aesthetically pleasing visualization of complex networks (Jones et al. 2018; Christensen and Kenett 2023). Of note, the purpose of force-directed algorithms is to provide easy viewing of the network edges and clustering structures by minimizing the number of crossing edges and by positioning nodes so that edges have approximately equal length (Jones et al. 2018). Considering semantic memory as a small world structure (Watts and Strogatz 1998), the global network measures, including ASPL, CC, and modularity (Q) were computed to quantify the structural properties of the semantic networks. To statistically assess differences between these network measures, we performed tests against random networks and the bootstrap method. Tests against random networks determined whether the network measures observed in the Haiku-and Senryu-dominated groups were different from what would be expected from a random network with the same number of nodes and edges (Steyvers and Tenenbaum 2005; Beckage et al. 2011; Christensen and Kenett 2023). Using the bootstrap method (Efron 1992), we randomly selected a subset of nodes in the network (e.g., 50%), estimated all compared networks for this subset of nodes, and computed the network measures (Kenett et al. 2014; Christensen and Kenett 2023). This process was repeated thousand times, allowing us to statistically estimate and compare the partial network measures, providing a robust and comprehensive comparison between the Haiku-preferred and Senryu-preferred networks. These iterated partial networks formed a sampling distribution of the global network measures for both Haiku- and Senryu-dominated groups, which were further statistically compared using a *t*-test (as there were only two groups) to determine whether the global network measures were different between the compared networks. We followed the protocols provided in the SemNA tutorial by Christensen and Kenett (2023). In this approach, we retained a gradation of nodes (50%, 60%, 70%, 80%, and 90%; Christensen et al. 2018), which enabled us to observe trends in the distributions.

3 | Results

Descriptive statistics for the variables are shown in Table 1. The variables exhibited a slightly left-skewed distribution, as indicated by negative skewness, which was close to zero. Additionally, the near-zero kurtosis values suggested an approximate normal distribution. To assess multicollinearity for all tested models, collinearity diagnostics were conducted for each genre-specific LMM using the `check_collinearity()` function from the `performance` package in R. Across models for Haiku, Senryu, and Control poems, Variance Inflation Factors (VIFs) ranged from 1.58 to 2.29 across all models and predictors and were consistently below the commonly accepted threshold of 5 (Cohen et al. 2002; Field 2013), therefore confirming the absence

TABLE 1 | Descriptive statistics of the variables, including mean, standard deviation, skewness, kurtosis, and standard error.

| Variables | <i>n</i> | <i>M</i> | <i>SD</i> | Median | Min–max | Skewness | Kurtosis | SE |
|------------------|----------|----------|-----------|--------|---------|----------|----------|------|
| Aesthetic Appeal | 10,710 | 4.04 | 1.63 | 4 | 1–7 | –0.29 | –0.65 | 0.02 |
| Vivid Imagery | 10,710 | 4.65 | 1.68 | 5 | 1–7 | –0.68 | –0.34 | 0.02 |
| Being Moved | 10,710 | 3.69 | 1.74 | 4 | 1–7 | –0.1 | –1.01 | 0.02 |
| Originality | 10,710 | 3.94 | 1.66 | 4 | 1–7 | –0.33 | –0.76 | 0.02 |
| Creativity | 10,710 | 3.91 | 1.75 | 4 | 1–7 | –0.24 | –0.91 | 0.02 |

Abbreviations: *M*, mean; Max, maximum; Min, minimum; *SD*, standard deviation; *SE*, standard error.

of significant multicollinearity issues. To evaluate the consistency of participants' ratings across constructs (aesthetic appeal, vivid imagery, being moved, originality, and creativity), we computed intraclass correlation coefficients (ICCs) under a two-way consistency model. The results indicated good to excellent reliability across all constructs in Haiku, Senryu, and Control conditions (ICC range: 0.80–0.93, $p < 0.001$), demonstrating strong agreement among participants in their ratings. These findings confirm the robustness of subjective evaluations across different poetic and nonpoetic stimuli.

Table 2 presents the means, standard deviations, and bivariate correlations between the variables. Across all three genres, all correlations were statistically significant ($p < 0.01$). In Haiku, creativity showed the strongest correlation with originality ($r = 0.85$), followed by being moved ($r = 0.67$) and aesthetic appeal ($r = 0.65$); vivid imagery ($r = 0.56$) showed the lowest correlation with creativity. Similarly, for Senryu, creativity was most strongly correlated with originality ($r = 0.86$), followed by being moved ($r = 0.70$) and aesthetic appeal ($r = 0.65$), with vivid imagery ($r = 0.54$) again showing the lowest correlation. For Control texts, creativity was most strongly correlated with originality ($r = 0.89$), followed by being moved ($r = 0.73$), aesthetic appeal ($r = 0.68$) and vivid imagery ($r = 0.53$).

The mean ratings of four variables for three stimulus categories revealed that Haiku received the highest mean ratings for aesthetic appeal ($M = 4.68$) and vivid imagery ($M = 5.12$), followed by Senryu (aesthetic appeal: $M = 4.40$, vivid imagery: $M = 5.00$), with Control texts scoring significantly lower (aesthetic appeal: $M = 3.04$, vivid imagery: $M = 3.81$) (see Figure 2). To statistically validate these observations, we aggregated participant-level means for each construct (aesthetic appeal, vivid imagery, being moved, and originality) across the three categories (Haiku, Senryu, and Control) and conducted paired t-tests to compare mean ratings between Haiku and Senryu, Haiku and Control, and Senryu and Control for each construct. Effect sizes were calculated using Cohen's *d*, where $d = 0.2$ indicates a small effect, $d = 0.5$ a medium effect, and $d = 0.8$ or higher a large effect (Cohen 1988). The results indicated that Haiku was rated significantly higher than Senryu for both aesthetic appeal ($t(50) = 5.97$, $p < 0.001$, $d = 0.34$, 95% CI [0.184, 0.371]) and vivid imagery ($t(50) = 2.97$, $p = 0.005$, $d = 0.15$, 95% CI [0.037, 0.193]). However, the effect size for vivid imagery was negligible, indicating that while the difference was statistically significant, its practical significance could be minimal. No significant differences were found between Haiku and Senryu for being moved ($p = 0.514$, $d = -0.03$, negligible) or originality ($p = 0.767$,

$d = -0.01$, negligible), suggesting comparable ratings in these constructs.

In comparisons with Control texts, both Haiku and Senryu consistently received significantly higher ratings across all constructs ($p < 0.001$). Specifically, Haiku outperformed Control for aesthetic appeal ($t(50) = 10.878$, 95% CI: [1.333, 1.937], $p < 0.001$, $d = 1.72$), vivid imagery ($t(50) = 8.302$, 95% CI: [0.989, 1.620], $p < 0.001$, $d = 1.30$), being moved ($t(50) = 11.237$, 95% CI: [1.172, 1.682], $p < 0.001$, $d = 1.36$), and originality ($t(50) = 11.58$, 95% CI: [1.412, 2.005], $p < 0.001$, $d = 1.71$). Similarly, Senryu outperformed Control for aesthetic appeal ($t(50) = 9.954$, 95% CI: [1.084, 1.631], $p < 0.001$, $d = 1.41$), vivid imagery ($t(50) = 8.689$, 95% CI: [0.914, 1.464], $p < 0.001$, $d = 1.17$), being moved ($t(50) = 12.533$, 95% CI: [1.221, 1.686], $p < 0.001$, $d = 1.39$), and originality ($t(50) = 12.518$, 95% CI: [1.447, 2.000], $p < 0.001$, $d = 1.71$). These results reveal that Haiku received statistically significantly higher ratings than Senryu for aesthetic appeal, albeit with a small-to-medium effect size, while its higher rating for vivid imagery was associated with a negligible effect size. Furthermore, both Haiku and Senryu consistently scored significantly higher than Control texts across all constructs, demonstrating very large effect sizes.

Figure 3A–C illustrate the partial correlation networks for Haiku, Senryu, and the Control, respectively. Each node in the network represents the prospective predictors, while the edges indicate the strength and direction of the partial correlations between nodes. For predicting creativity, prospective predictors were entered into the model hierarchically based on their partial correlation with creativity, in descending order. Detailed partial correlation tables for each genre are provided in the Supporting Information (Table S1).

3.1 | Model for Predicting Creativity

3.1.1 | Haiku

The null model for Haiku, which included no predictors, revealed an ICC of 0.32, indicating that 32% of the variance in creativity ratings was due to differences between participants, justifying the use of LMM. The predictors were entered in the following order according to the descending order of their partial correlation with creativity: originality ($r = 0.70$), aesthetic appeal ($r = 0.24$), being moved ($r = 0.16$), and vivid imagery ($r = 0.00$). Model comparison showed that vivid imagery did not emerge as a significant predictor (see Table 3 for model comparison). The

TABLE 2 | Means (*M*), standard deviations (*SD*), and bivariate correlations among the assessed variables in Haiku, Senryu, and the control text.

| Variable | M (Haiku) | | SD (Haiku) | | M (Senryu) | | SD (Senryu) | | M (Control) | | SD (Control) | |
|---------------------|-----------|--------|------------|--------|------------|--------|-------------|--------|-------------|--------|--------------|--------|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1. Aesthetic Appeal | 4.68 | — | 1.4 | — | 4.4 | — | 1.45 | — | 3.04 | — | 1.54 | — |
| 2. Vivid Imagery | 5.12 | 0.70** | 1.42 | — | 5 | 0.64** | 1.47 | — | 3.81 | 0.68** | 1.81 | — |
| 3. Being Moved | 4.16 | 0.64** | 1.55 | 0.66** | 4.18 | 0.68** | 1.63 | 0.63** | 2.73 | 0.74** | 1.63 | 0.62** |
| 4. Originality | 4.5 | 0.58** | 1.34 | 0.65** | 4.52 | 0.61** | 1.44 | 0.68** | 2.79 | 0.65** | 1.55 | 0.54** |
| 5. Creativity | 4.54 | 0.65** | 1.44 | 0.67** | 4.53 | 0.65** | 1.52 | 0.70** | 2.65 | 0.68** | 1.55 | 0.73** |

*** $p < 0.01$.

best-fitting model (see model 3 in Table 3) explained 47% of the variance in creativity ratings (pseudo- R^2 for fixed effects) and 79% of the total variance, with substantial between-participant variability in the random effects ($ICC = 0.61$). The best-fitting model identified originality ($b = 0.69$, $SE = 0.01$, $t(3519) = 54.9$, $p < 0.001$) as the strongest predictor, followed by aesthetic appeal ($b = 0.15$, $SE = 0.01$, $t(3519) = 12.36$, $p < 0.001$) and being moved ($b = 0.14$, $SE = 0.01$, $t(3519) = 11.83$, $p < 0.001$). The model included 3570 observations with $AIC = 7338.46$, $BIC = 7375.54$, $Pseudo-R^2$ (Fixed Effects) = 0.47, and $Pseudo-R^2$ (Total) = 0.79. The ICC for the random intercept was 0.61, indicating that 61% of the variance in creativity ratings was attributable to differences between participants (see Table 4a). Statistical comparisons of estimates showed no significant difference between the contributions of aesthetic appeal and being moved ($Z = 0.71$, $p = 0.48$, 95% CI $[-0.018, 0.038]$), suggesting that both predictors contributed equally to creativity judgments in Haiku.

3.1.2 | Senryu

The null model for Senryu, which included no predictors, revealed an ICC of 0.29, indicating that 29% of the variance in creativity ratings was due to differences between participants, justifying the use of LMM. The predictors were entered in the following order according to the descending order of their partial correlation with creativity: originality ($r = 0.70$), aesthetic appeal ($r = 0.19$), being moved ($r = 0.17$), and vivid imagery ($r = 0.02$). Model comparison showed that vivid imagery did not emerge as a significant predictor (see Table 3 for model comparison). The best model (see model 3 in Table 3), including originality, aesthetic appeal, and being moved, explained 50% of the variance in creativity ratings and 80% of the total variance. The best-fitting model identified originality ($b = 0.69$, $SE = 0.01$, $t(3519) = 55.18$, $p < 0.001$) as the strongest predictor, followed by being moved ($b = 0.15$, $SE = 0.01$, $t(3519) = 12.44$, $p < 0.001$) and aesthetic appeal ($b = 0.12$, $SE = 0.01$, $t(3519) = 9.38$, $p < 0.001$). The model included 3570 observations with $AIC = 7683.96$, $BIC = 7721.05$, $Pseudo-R^2$ (Fixed Effects) = 0.50, and $Pseudo-R^2$ (Total) = 0.80. The ICC for the random intercept was 0.59, indicating that 59% of the variance in creativity ratings was attributable to differences between participants (see Table 4b). Statistical comparisons of estimates indicated that being moved contributed significantly more than aesthetic appeal ($Z = 2.12$, $p = 0.03$, 95% CI $[-0.058, -0.002]$), with a small effect size.

Statistical comparisons of estimates across genres revealed that aesthetic appeal was rated significantly higher for Haiku than Senryu ($Z = 2.12$, $p = 0.034$, 95% CI $[0.002, 0.058]$), with a small effect size. In contrast, no significant difference was found in being moved ratings between Haiku and Senryu ($Z = -0.71$, $p = 0.480$, 95% CI $[-0.038, 0.018]$).

3.1.3 | Control

The null model for Control texts revealed an ICC of 0.49, indicating that nearly half of the variance in creativity ratings was due to differences between participants, justifying the use of LMM. The predictors were entered in the following order according to the descending order of their partial correlation with

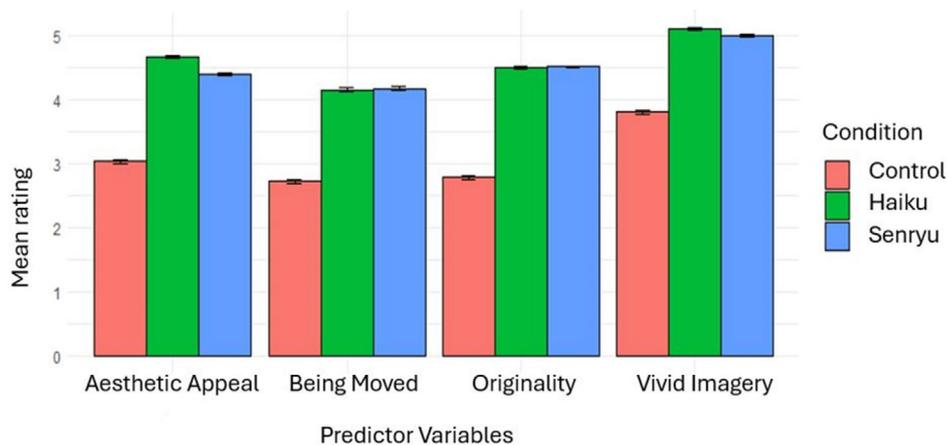


FIGURE 2 | Mean ratings for Haiku, Senryu, and control across four measures. Error bars represent the standard errors of the mean.

creativity: originality ($r=0.76$), being moved ($r=0.21$), aesthetic appeal ($r=0.14$), and vivid imagery ($r=-0.05$). Model comparison showed that vivid imagery did not emerge as a significant predictor (see Table 3 for model comparison). The best-fitting model (see Model 3 in Table 3), which included originality, being moved, and aesthetic appeal, explained 35% of the variance in creativity ratings (pseudo- R^2 for fixed effects) and 84% of the total variance, with substantial between-participant variability. Originality ($b=0.68$, $SE=0.01$, $t(3519)=56.75$, $p<0.001$) was the strongest predictor, followed by being moved ($b=0.13$, $SE=0.01$, $t(3519)=11.04$, $p<0.001$) and aesthetic appeal ($b=0.13$, $SE=0.01$, $t(3519)=10.67$, $p<0.001$) (see Table 4c). The model included 3570 observations with $AIC=6951.88$, $BIC=6988.96$, Pseudo- R^2 (Fixed Effects)=0.35, and Pseudo- R^2 (Total)=0.84. The ICC for the random intercept was 0.76, indicating that 76% of the variance in creativity ratings was attributable to differences between participants (see Table 4c). Statistical comparisons of estimates showed no difference between aesthetic appeal and being moved ($Z=0$, $p>0.9$, 95% CI [-0.028, 0.028]), suggesting that both predictors contributed equally to creativity judgments for Control texts. Statistical comparison between Haiku and Control resulted in no significant differences in aesthetic appeal ($Z=1.41$, $p=0.16$, 95% CI [-0.008, 0.048]) or being moved ($Z=0.71$, $p=0.48$, 95% CI [-0.018, 0.038]). Similarly, statistical comparison between Senryu and Control did not reveal any significant differences in aesthetic appeal ($Z=-0.71$, $p=0.48$, 95% CI [-0.038, 0.018]) or being moved ($Z=1.41$, $p=0.16$, 95% CI [-0.008, 0.048]).

3.2 | Impact of Individual Differences

We examined how individual differences in readers' personality traits influence creativity judgments across Haiku and Senryu; the Control texts were not included in this analysis. We focused on the interactions between seven specific personality traits (as discussed in Introduction)—openness, intellect, curiosity, vividness of visual imagery (VVIQ), vividness of auditory imagery (AVIQ), mindfulness, and aesthetic responsiveness (AReA)—and significant predictors of creativity judgments, including originality, being moved, and aesthetic appeal. For the results of the moderation analyses, see Table S2 in the Supplementary section. Table 5 details the simple slopes analyses for Haiku and Senryu at high (+1 SD) and low (-1 SD) levels of the moderators. Figures 4A–C

and 5A–G illustrate these interactions, showing how creativity judgments vary with different predictor levels across the range of the moderators for Haiku and Senryu, respectively.

In Haiku, the significant interaction between AVIQ and being moved showed a significant slope difference ($b=0.06$, $SE=0.02$, $t=2.76$, $p=0.01$), indicating that individuals with higher levels of AVIQ place greater importance on the emotional impact (being moved) of Haiku when making creativity judgments compared to those with lower AVIQ. Notably, significant negative slope differences were observed for the interaction between AVIQ and originality ($b=-0.06$, $SE=0.02$, $t=-2.59$, $p=0.01$) and between AReA and originality ($b=-0.06$, $SE=0.03$, $t=-2.11$, $p=0.03$) suggesting that individuals with higher AVIQ and aesthetic responsiveness tend to value originality less when evaluating the creativity of Haiku.

In Senryu, the moderation analyses revealed a considerable number of significant interactions between personality traits and key predictors of creativity judgments. This indicates that individual differences in personality traits strongly influence the evaluation process for Senryu. For instance, the interaction between openness and aesthetic appeal showed a negative slope difference ($b=-0.06$, $SE=0.02$, $t=-2.36$, $p=0.02$), suggesting that individuals with lower levels of openness place more importance on aesthetic appeal in their creativity judgments of Senryu compared to those with higher openness. In contrast, a significant positive slope difference was found for the interaction between openness and originality ($b=0.08$, $SE=0.02$, $t=3.15$, $p=0.002$), suggesting that individuals with higher levels of openness place greater emphasis on originality when judging the creativity of Senryu, compared to those with lower levels of openness. The positive slope difference between intellect and being moved ($b=0.06$, $SE=0.02$, $t=2.62$, $p=0.01$) indicates that individuals with greater intellectual engagement tend to factor in the emotional resonance of Senryu more heavily in their creativity assessments than those with lower intellectual engagement. Additionally, the interaction between VVIQ and being moved revealed a positive slope difference ($b=0.08$, $SE=0.02$, $t=4.07$, $p<0.001$), indicating that individuals with more vivid visual imagery (VVIQ) prioritize the emotional impact of Senryu in their creativity judgments. The interaction between AVIQ and being moved showed a positive slope ($b=0.10$, $SE=0.02$, $t=4.48$,

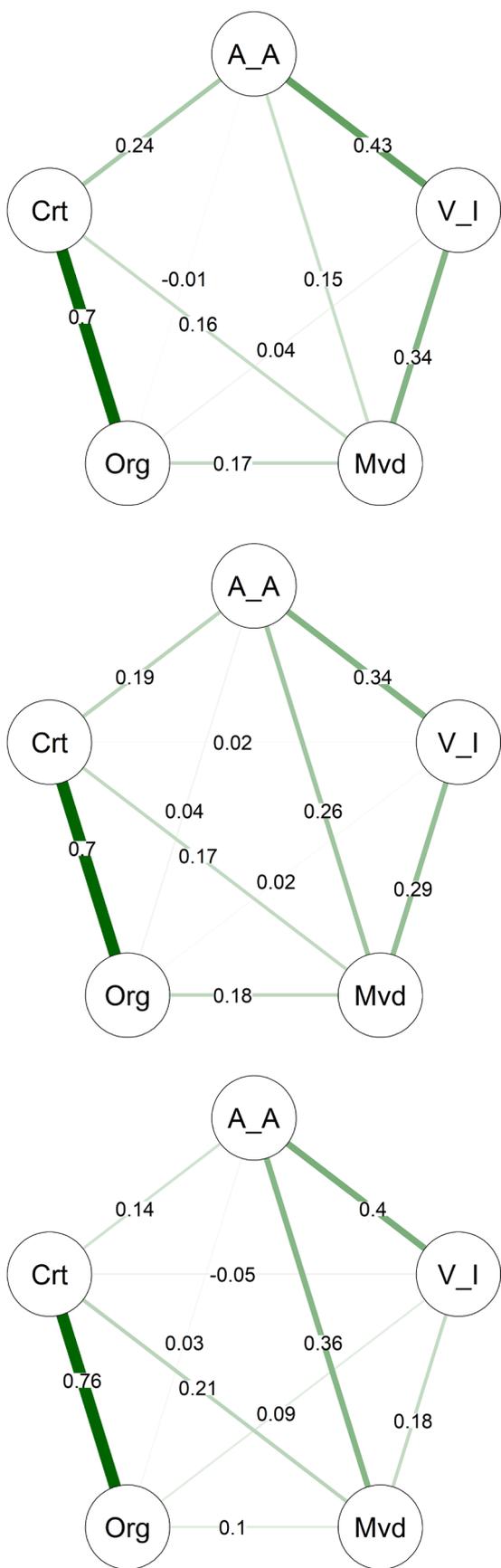


FIGURE 3 | Partial correlation networks of the variables in Haiku (A), Senryu (B), and the Control (C). A_A, V_I, Mvd, Org, and Crt represent aesthetic appeal, vivid imagery, being moved, originality, and creativity, respectively.

$p < 0.001$), indicating that individuals with more vivid auditory imagery tend to place greater emphasis on the emotional impact of Senryu when evaluating creativity. In contrast, the interaction between AVIQ and originality demonstrated a negative slope ($b = -0.09$, $SE = 0.02$, $t = -3.85$, $p < 0.001$), suggesting that those with more vivid auditory imagery are less likely to weigh originality in their creativity assessments compared to those with less vivid auditory imagery. The interaction between mindfulness and originality, with a significant negative slope difference ($b = -0.07$, $SE = 0.03$, $t = -2.63$, $p = 0.01$), suggests that individuals with lower mindfulness prioritize originality more in their creativity judgment of Senryu, in contrast to those with higher mindfulness levels.

3.3 | Impact of Semantic Memory Networks

The results of the semantic network analysis reveal differences between the groups that preferred Haiku and those that preferred Senryu. Figure 6 illustrates the Senryu-dominant (left) and Haiku-dominant (right) networks for the Senryu-preferred and Haiku-preferred groups respectively, using the Fruchterman-Reingold algorithm (Fruchterman and Reingold 1991). Each node represents a unique animal response given by participants during the verbal fluency task, and the edges reflect the magnitude of association between these responses. In this study, we specified the networks to have weighted undirected edges; the strength of the relationship between nodes was represented by the thickness and color density of the edges connecting them—thicker and more densely colored lines indicating stronger relationships. The edges were undirected, suggesting mutual relationships without indicating the direction of effect. Figure 6 qualitatively illustrates that the Senryu-dominant network appears more tightly clustered compared to the Haiku-dominant network, indicating denser associations among the nodes within the Senryu-dominant group. Table 6 summarizes the global network measures of the two networks, including ASPL, CC, and modularity (Q). The Haiku-dominant network showed lower ASPL (5.21), indicating that this semantic network was more efficient and might demand higher creative ability (Kenett and Faust 2019), compared to the Senryu-dominant network (ASPL = 5.45). However, this network appeared to be less clustered (CC = 0.42) and less modular (Q = 0.59) compared to the Senryu-preferred network (CC = 0.44; Q = 0.60). The results of statistical tests for differences in these network measures across networks are depicted in Tables 7 and 8. Table 7 provides results of statistical tests to determine whether the network measures observed in the Haiku and Senryu-dominant groups were different from what would be expected from a random network with the same number of nodes and edges (Steyvers and Tenenbaum 2005; Beckage et al. 2011; Christensen and Kenett 2023). The p -values were reported for each network compared to the random network values and the values below “Random” are the mean (M) and standard deviation (SD) of the global network measures for the random network distribution. Table 8 displays the results of the partial bootstrapped network comparison between the Haiku and Senryu dominant networks. Using a bootstrap method (Efron 1992), and following the protocol provided by the SemNA tutorial (Christensen and Kenett 2023), we applied statistical comparisons across different

TABLE 3 | Model comparison of linear mixed effects models for predicting creativity ratings across genres (Haiku, Senryu, and control).

| Genre | Model | npar | AIC | BIC | R_m^2 | Likelihood ratio test statistic | <i>p</i> |
|---------|---------|------|---------|---------|---------|---------------------------------|----------|
| Haiku | Null | 3 | 11,546 | 11564.6 | 0 | | |
| | Model 1 | 4 | 7813.2 | 7837.9 | 0.44 | 3734.828 | <0.001 |
| | Model 2 | 5 | 7473.6 | 7504.5 | 0.46 | 341.5836 | <0.001 |
| | Model 3 | 6 | 7338.5 | 7375.5 | 0.47 | 137.1467 | <0.001 |
| | Model 4 | 7 | 7340.5 | 7383.7 | 0.47 | 0.0029 | 0.96 |
| Senryu | Null | 3 | 12086.4 | 12104.9 | 0 | | |
| | Model 1 | 4 | 8086.5 | 8111.2 | 0.48 | 4001.898 | <0.001 |
| | Model 2 | 5 | 7833.5 | 7864.4 | 0.49 | 254.987 | <0.001 |
| | Model 3 | 6 | 7684 | 7721 | 0.50 | 151.532 | <0.001 |
| | Model 4 | 7 | 7683.1 | 7726.4 | 0.51 | 2.826 | 0.09 |
| Control | Null | 3 | 11,078 | 11096.6 | 0 | | |
| | Model 1 | 4 | 7361.6 | 7386.3 | 0.33 | 3718.411 | <0.001 |
| | Model 2 | 5 | 7061.9 | 7092.8 | 0.34 | 301.7629 | <0.001 |
| | Model 3 | 6 | 6951.9 | 6989 | 0.35 | 111.9862 | <0.001 |
| | Model 4 | 7 | 6953.9 | 6997.1 | 0.35 | 0.0149 | 0.9 |

Note: Predictors were added sequentially, as per decreasing order of partial correlation coefficient to Models 1 to 4 for the respective genre; all models are compared hierarchically, that is, Model 1 is compared to the null model, Model 2 is compared to Model 1, and so on. Abbreviations: AIC, Akaike information criterion; BIC, Bayesian information criterion; R_m^2 , proportion of variation explained by fixed effects (Nakagawa and Schielzeth 2013).

TABLE 4A | The fixed and random effects in the best-fitting model for Haiku.

| | <i>b</i> | SE | <i>t</i> | df | <i>p</i> |
|------------------|-------------|------|----------|------|----------|
| Fixed effects | | | | | |
| Intercept | 4.54 | 0.12 | 39.2 | 51 | <0.001 |
| Originality | 0.69 | 0.01 | 54.9 | 3519 | <0.001 |
| Aesthetic appeal | 0.15 | 0.01 | 12.36 | 3519 | <0.001 |
| Being moved | 0.14 | 0.01 | 11.83 | 3519 | <0.001 |
| Random effects | | | | | |
| Group | Parameter | SD | | | |
| Participant | (Intercept) | 0.82 | | | |
| Residual | | 0.65 | | | |

Abbreviations: df, Degrees of Freedom; SD, Standard Deviation; SE, Standard Error.

percentages of nodes retained in the networks (from 90% down to 50%). For each subset of nodes, we calculated network measures such as ASPL, CC, and Q. This process was repeated 1000 times for each percentage, with *t*-statistics and Cohen's *d* values provided for each comparison. Negative *t*-statistics indicate that the Haiku-dominant network has lower values than the Senryu-dominant network for the given measure. All *p*-values are <0.001, with effect sizes interpreted as follows: Cohen's

TABLE 4B | The fixed and random effects in the best-fitting Model for Senryu.

| | <i>b</i> | SE | <i>t</i> | df | <i>p</i> |
|------------------|-------------|------|----------|------|----------|
| Fixed effects | | | | | |
| Intercept | 4.53 | 0.12 | 39.21 | 51 | <0.001 |
| Originality | 0.69 | 0.01 | 55.18 | 3519 | <0.001 |
| Aesthetic appeal | 0.12 | 0.01 | 9.38 | 3519 | <0.001 |
| Being moved | 0.15 | 0.01 | 12.44 | 3519 | <0.001 |
| Random effects | | | | | |
| Group | Parameter | SD | | | |
| Participant | (Intercept) | 0.82 | | | |
| Residual | | 0.69 | | | |

Abbreviations: df, Degrees of Freedom; SD, Standard Deviation; SE, Standard Error.

d = 0.50 (moderate), 0.80 (large), 1.10 (very large), following the thresholds outlined by Christensen and Kenett (2023). These thresholds highlight robust and meaningful differences in network properties. Notably, the effect sizes become progressively larger (ranging from moderate to very large) as the proportion of nodes retained in the network increases, indicating that the observed differences between the full networks are consistent and substantial. Figure 7 illustrates the results of the bootstrap

node-drop analysis, comparing the structural properties of the Haiku- and Senryu-preferred semantic networks across varying proportions of retained nodes (ranging from 90% to 50%). For each proportion, 1000 samples were generated, and network measures such as ASPL, CC, and Q were computed. The density plots above each box plot depict the distribution of these measures across samples, while the scatterplots below show individual sample values, with the black dot representing the

mean for each group. This visual representation highlights how the structural differences between the networks are maintained even when subsets of nodes are considered (Christensen and Kenett 2023).

4 | Discussion

Understanding how creativity is judged in brief, structured texts based on their themes provides valuable insights in today's era of rapid communication. Haiku and Senryu—two structurally similar but semantically distinct forms of Japanese poetry (Niikuni et al. 2022)—serve as ideal mediums to explore how thematic focus influences creativity judgments in highly constrained poetic texts (Thomas et al. 2017; Geyer et al. 2020; Hitsuwari and Nomura 2022b; Pierides et al. 2017). While Haiku often focuses on nature and seasons, Senryu focuses on human nature and social experiences, offering thematic contrasts within structurally similar formats. This study utilized these contrasts to investigate genre-specific creativity assessments. The findings reveal that originality, aesthetic appeal, and the emotional state of being moved significantly influenced creativity judgments of ELH and Senryu. Originality consistently emerged as the most crucial factor, but aesthetic appeal and emotional engagement played distinct roles in each genre. Interestingly, in Haiku, aesthetic appeal and the emotional state of being moved had equal predictive effects on creativity judgments, whereas in Senryu, the emotional state of being moved emerged as the stronger predictor. When comparing across genres, aesthetic appeal was a significantly stronger predictor of creativity in Haiku compared to Senryu, while no significant difference

TABLE 4C | The fixed and random effects in the best-fitting Model for Control.

| | <i>b</i> | SE | <i>t</i> | df | <i>p</i> |
|------------------|-------------|------|----------|------|----------|
| Fixed effects | | | | | |
| Intercept | 2.65 | 0.15 | 17.3 | 51 | <0.001 |
| Originality | 0.68 | 0.01 | 56.75 | 3519 | <0.001 |
| Aesthetic Appeal | 0.13 | 0.01 | 11.04 | 3519 | <0.001 |
| Being Moved | 0.13 | 0.01 | 10.67 | 3519 | <0.001 |
| Random effects | | | | | |
| Group | Parameter | SD | | | |
| Participant | (Intercept) | 1.09 | | | |
| Residual | | 0.62 | | | |

Abbreviations: df, Degrees of Freedom; SD, Standard Deviation; SE, Standard Error.

TABLE 5 | Results of simple slopes analyses of moderations of personality traits on creativity judgments across Haiku and Senryu.

| Interaction | High(+1SD) | | | | Low(-1SD) | | | | Slope difference (High-Low) | | | |
|---------------------------|------------|------|----------|----------|-----------|------|----------|----------|-----------------------------|------|----------|----------|
| | <i>b</i> | SE | <i>t</i> | <i>p</i> | <i>b</i> | SE | <i>t</i> | <i>p</i> | <i>b</i> | SE | <i>t</i> | <i>p</i> |
| Haiku | | | | | | | | | | | | |
| Openness×Originality | 0.71 | 0.02 | 42.41 | <0.001 | 0.67 | 0.02 | 35.31 | <0.001 | 0.05 | 0.03 | 1.88 | 0.06 |
| AVIQ×Being Moved | 0.18 | 0.02 | 10.31 | <0.001 | 0.11 | 0.02 | 7.16 | <0.001 | 0.06 | 0.02 | 2.76 | 0.01 |
| AVIQ×Originality | 0.66 | 0.02 | 36.95 | <0.001 | 0.72 | 0.02 | 43.37 | <0.001 | -0.06 | 0.02 | -2.59 | 0.01 |
| AReA×Originality | 0.67 | 0.02 | 37.15 | <0.001 | 0.72 | 0.02 | 38.24 | <0.001 | -0.06 | 0.03 | -2.11 | 0.03 |
| Senryu | | | | | | | | | | | | |
| Openness×Aesthetic Appeal | 0.1 | 0.02 | 6.26 | <0.001 | 0.16 | 0.02 | 8.3 | <0.001 | -0.06 | 0.02 | -2.36 | 0.02 |
| Openness×Originality | 0.73 | 0.02 | 42.7 | <0.001 | 0.65 | 0.02 | 36.19 | <0.001 | 0.08 | 0.02 | 3.15 | 0.002 |
| Intellect×Being Moved | 0.18 | 0.02 | 10.71 | <0.001 | 0.12 | 0.02 | 7.03 | <0.001 | 0.06 | 0.02 | 2.62 | 0.01 |
| VVIQ×Being Moved | 0.2 | 0.02 | 11.67 | <0.001 | 0.11 | 0.02 | 6.95 | <0.001 | 0.08 | 0.02 | 4.07 | <0.0001 |
| AVIQ×Being Moved | 0.21 | 0.02 | 11.93 | <0.001 | 0.11 | 0.02 | 6.7 | <0.001 | 0.1 | 0.02 | 4.48 | <0.0001 |
| AVIQ×Originality | 0.64 | 0.02 | 35.83 | <0.001 | 0.73 | 0.02 | 45.22 | <0.001 | -0.09 | 0.02 | -3.85 | <0.0001 |
| Mindfulness×Originality | 0.65 | 0.02 | 36.13 | <0.001 | 0.72 | 0.02 | 39.75 | <0.001 | -0.07 | 0.03 | -2.63 | 0.01 |

Note: The table presents the estimates (*b*), standard errors (SE), *t*-values, and *p*-values for the slopes of the interactions between significant predictors of creativity and personality traits at high (+1 SD) and low (-1 SD) levels, and the slope differences between high and low levels.

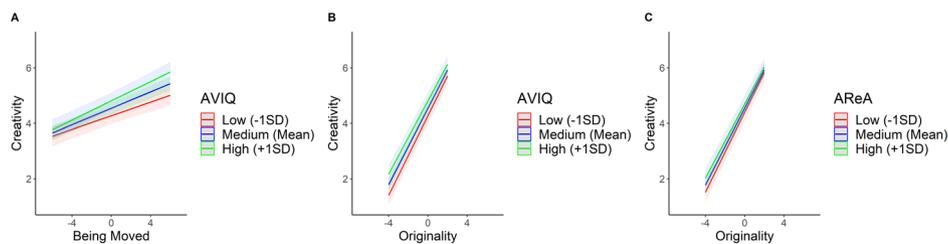


FIGURE 4 | Interaction plots showing the moderation effects of personality traits (Low, Medium, High) on Creativity Judgments in Haiku. (A) interaction between vividness of auditory imagery (AVIQ) and being moved. (B) Between AVIQ and originality. (C) Between aesthetic responsiveness (AReA) and originality.

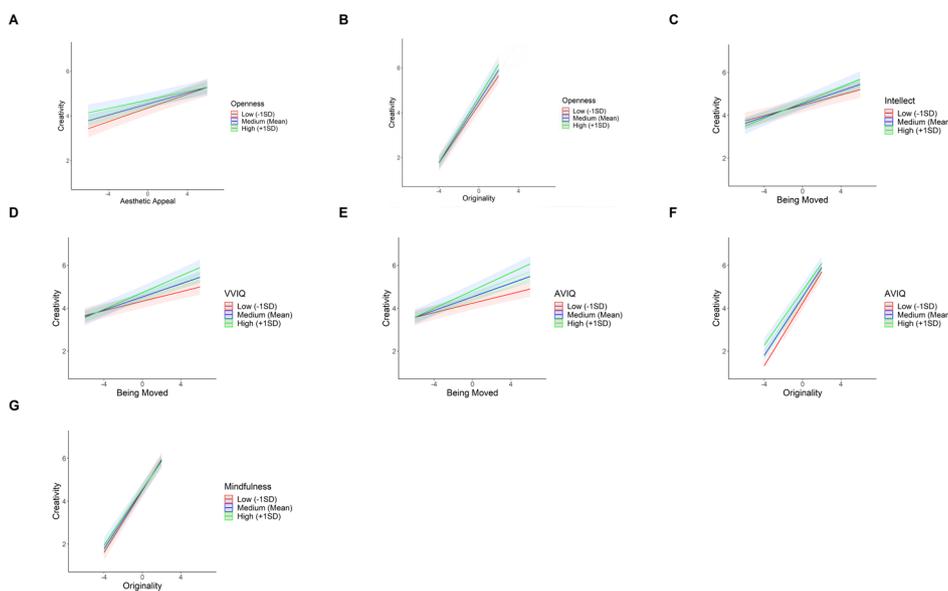


FIGURE 5 | Interaction Plots (A–G) Showing the Moderation Effects of Personality Traits (Low, Medium, High) on Creativity Judgments in Senryu. (A) interaction between openness and aesthetic appeal; (B) between openness and originality; (C) between intellect and being moved; (D) between vividness of visual imagery (VVIQ) and being moved; (E) between vividness of auditory imagery (AVIQ) and being moved; (F) between AVIQ and originality; (G) between mindfulness and originality.

in the contribution of being moved was observed between the two genres. We also examined how readers' individual differences in personality traits, such as openness, curiosity, vivid visual and auditory imagery, mindfulness, and aesthetic responsiveness interacted with these subjective qualities to influence creativity evaluations. Moreover, we examined how the efficiency of reader's semantic memory networks contributed to genre-specific preferences in creativity judgments, providing deeper insights into the cognitive processes that underlie these evaluations. Specifically, we explored how, even within the constraints of structured brevity, Haiku's refined simplicity and Senryu's emotional depth could serve as valuable indicators of their powerful creative potential. By presenting a three-tier framework, predictor level factor, readers' personality traits, and semantic memory networks, this study illuminates how structurally brief yet thematically rich texts influence creativity judgments. These insights may extend beyond poetry to domains such as advertising, social media, and education, where concise and impactful communication is essential for promoting engagement and creativity.

4.1 | Creativity Judgments of Haiku and Senryu

This study revealed that originality consistently emerged as the strongest predictor of creativity in both poetic genres, supporting our prediction. This also aligns with the standard definition of creativity (Runco and Jaeger 2012) and prior research emphasizing originality as a core component of creativity (Stein 1953; Amabile 1982; Plucker et al. 2004; Diedrich et al. 2015; Acar et al. 2017; Lloyd-Cox et al. 2022; Chaudhuri et al. 2024b). While this outcome might seem apparent, given the synonymous perception of creativity and originality, participants were not guided by formal definitions of these constructs. Their implicit understanding nonetheless emphasized the significance of originality across both genres, irrespective of thematic context. This suggests that, despite their thematic differences, readers' creativity evaluations are primarily driven by the novelty of poetic expression (Chaudhuri et al. 2024b). The minimalist form of these genres provides a foundation for novel associations regardless of themes, that is, whether evoking nature in Haiku or reflecting human affairs in Senryu.

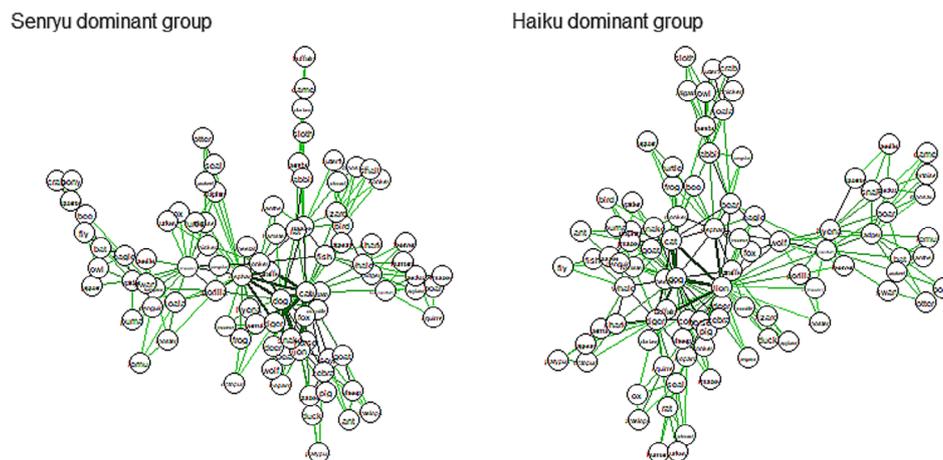


FIGURE 6 | Comparison of semantic networks of Senryu-dominant and Haiku-dominant Groups, visualized using Fruchterman-Reingold algorithm (Fruchterman and Reingold 1991). Each node in the network corresponds to a unique animal response given by participants. The edges connecting the nodes depict the strength of association between responses, with thicker and denser-colored edges indicating stronger associations. The Haiku-dominant network (right) shows a more integrated structure with fewer isolated clusters, suggesting greater connectivity and coherence among responses. In contrast, the Senryu-dominant network (left) appears more tightly clustered and compartmentalized, reflecting a more segmented structure with distinct subgroups. This visualization provides a qualitative representation of how the structure of semantic associations differs between groups favoring Haiku and Senryu.

The theme-specific distinction between the genres was evident in the contrasting predictive roles of aesthetic appeal and the emotional state of being moved. As mentioned, Haiku and Senryu are structurally similar but thematically different—Haiku captures moments of nature and seasons, while Senryu reflects human conditions and emotions (Ueda 1999). This study revealed that for Haiku, aesthetic appeal appeared to be a stronger predictor of creativity, reflecting readers' appreciation for the form's elegance and ability to evoke beauty. However, statistical comparisons revealed no significant difference between the contributions of aesthetic appeal and the state of being moved to creativity judgments, indicating that both contributed equally in Haiku to its creativity evaluations, thereby supporting our prediction. This not only substantiates Haiku's focus on nature and seasonal elements, which are closely tied to the appreciation of beauty (Brady 2019; Parsons 2007), but also highlights its capacity for emotional engagement, reaffirming that subjective emotional appraisals play a crucial role in aesthetic experiences (Chatterjee and Vartanian 2014; Leder and Nadal 2014; Lütke et al. 2014). Haiku's uniquely capacity to evoke vivid mental imagery and emotional engagement is well documented (Blasko and Merski 1999; Shirane 2019). Its vivid mental imagery and felt emotional valence (both positive and negative) are strongly linked to its aesthetic experience (Belfi et al. 2018; Hitsuwari and Nomura 2022b). Our results highlight the equivalent contributions of aesthetic appeal and emotional resonance (being moved) in shaping creativity judgments of Haiku. Furthermore, the vastness and abundance of nature portrayed in Haiku may evoke self-transcendent emotions in readers such as a feeling of appreciation and "gratitude for serenity" (Kuranaga and Higuchi 2013; Kato and Hitsuwari 2024). This connection may evoke an awareness of oneself as part of the greater natural world and inspires awe (Keltner and Haidt 2003), potentially heightening emotional engagement and influencing creativity assessments of Haiku.

TABLE 6 | Global Network Measures for Senryu-dominant and Haiku-dominant Groups.

| Group | ASPL | CC | Q |
|-----------------|------|------|------|
| Senryu dominant | 5.45 | 0.44 | 0.6 |
| Haiku dominant | 5.21 | 0.42 | 0.59 |

In contrast, as predicted, Senryu's focus on human nature led to creativity judgments being more influenced by emotional resonance than by aesthetic appeal. Senryu engages readers through a more personal and emotionally evocative lens (Opler and Obayashi 1945), employing humor, satire, sensuality, and reflections on social and personal life. These characteristics enable Senryu to resonate deeply with readers' personal emotions, making them feel emotionally moved while assessing its creative potential.

Interestingly, cross-genre comparisons revealed that while Haiku was more aesthetically appealing than Senryu, the two genres did not differ significantly in their emotional engagement. Consequently, we could not confirm that Senryu was more emotionally engaging than Haiku in predicting creativity. This partially refutes our prediction that Senryu would have a stronger emotional impact on creativity judgments. Instead, Haiku appeared to combine both aesthetic appeal and emotional resonance more effectively, making it a paradigmatically impactful genre for creativity judgments.

Although vivid imagery is central to both poetic forms, it did not emerge as a significant predictor of creativity in either genre, contrary to our hypothesis. This might seem counterintuitive given Haiku's reliance on vivid imagery to evoke emotional responses (Blasko and Merski 1998; Ross 2007). A plausible interpretation is that vivid imagery is a foundational

TABLE 7 | Comparison of network measures between Senryu-dominant and Haiku-dominant Groups and Random Networks.

| Group | Measures | <i>p</i> | Random (<i>M</i>) | Random (<i>SD</i>) |
|-----------------|----------|----------|---------------------|----------------------|
| Senryu dominant | ASPL | <0.001 | 2.63 | 0.02 |
| Senryu dominant | CC | <0.001 | 0.11 | 0.02 |
| Senryu dominant | Q | <0.001 | 0.35 | 0.01 |
| Haiku dominant | ASPL | <0.001 | 2.61 | 0.02 |
| Haiku dominant | CC | <0.001 | 0.13 | 0.02 |
| Haiku dominant | Q | <0.001 | 0.34 | 0.01 |

Note: The table displays the average shortest path length (ASPL), clustering coefficient (CC), and modularity (Q) for both networks, alongside the corresponding values for random networks with the same number of nodes and edges. *p*-values indicate that the observed network measures for both groups are significantly different from those expected in random networks ($p < 0.001$ for all comparisons). The “Random (*M*)” column represents the mean of the global network measures for the random networks, while “Random (*SD*)” indicates the standard deviation of these measures.

TABLE 8 | Partial bootstrapped network results.

| Nodes remaining | Network measures | | | | | |
|-----------------|------------------|----------|----------|----------|----------|----------|
| | ASPL | | CC | | Q | |
| | <i>t</i> | <i>d</i> | <i>t</i> | <i>d</i> | <i>t</i> | <i>d</i> |
| 90% (df = 1998) | 21.55** | 0.96 | -11.57** | 0.52 | 17.62** | 0.79 |
| 80% (df = 1998) | 9.39** | 0.42 | -8.51** | 0.38 | 8.58** | 0.38 |
| 70% (df = 1998) | 3.10* | 0.14 | -6.80** | 0.3 | 5.26** | 0.24 |
| 60% (df = 1998) | -0.34 | 0.02 | -2.96* | 0.13 | 2.18 | 0.1 |
| 50% (df = 1998) | -1.63 | 0.07 | -3.54** | 0.16 | 1.1 | 0.05 |

Note: 1000 samples were generated for each percentage of nodes remaining. T-statistics and Cohen’s *d* values are presented (Jacob Cohen 1992). Negative *t*-statistics denote the high (H-S) group having lower values than the low (H-S) group. Statistical significance levels are denoted as follows: * $p < 0.05$; ** $p < 0.01$. All reported *p*-values are < 0.001 . Cohen’s *d* effect sizes: 0.50, moderate; 0.80, large; 1.10, very large. Abbreviations: ASPL, average shortest path length; CC, clustering coefficient; Q, modularity.

expectation in these genres, setting the stage for creative qualities, such as originality or emotional engagement. Readers may assess creativity based on how imagery enhances other qualities, such as originality or emotional impact, rather than on the imagery itself. In this context, vivid imagery may function implicitly, enhancing the poem’s overall aesthetic appeal and emotional appeal (Hitsuwari and Nomura 2022b), but without directly influencing creativity judgments. Readers might assess creativity based on how imagery supports originality or emotional engagement, rather than on the vividness of the imagery itself.

In the Control condition, the relatively low explanatory power of the fixed effects, accounting for only 35% of the variance in creativity ratings, highlights the difficulty in predicting the creativity of nonpoetic or neutral texts. In contrast, the total model explained 84% of the variance, indicating a substantial contribution from random effects. This suggests that nonpoetic texts, lacking the structured conventions and thematic elements of Haiku and Senryu, present a greater challenge for consistent creativity evaluation. Without these poetic cues, participants likely relied more on personal experiences, leading to greater variability in creativity judgments. Despite this variability, predictors such as originality, being moved, and aesthetic appeal remained significant, with originality being the strongest predictor. This

indicates that while poetic structure enhances the predictability of creativity, the brevity of even nonpoetic texts does not hinder participants’ ability to make implicit judgments. Core elements like originality and emotional resonance continue to play a crucial role in creativity judgments, even in less structured, nonpoetic contexts.

4.2 | Role of Individual Differences in the Creativity Judgment

The influence of individual differences on creativity judgments (Feist 1998; Batey and Furnham 2006; Batey and Hughes 2017) of Haiku and Senryu revealed genre-specific subtleties. Compared to Haiku, creativity assessments in Senryu were more positively influenced by individual differences. Supporting our hypothesis, higher openness was linked to a greater emphasis on originality in both genres (Lloyd-Cox et al. 2022) though this effect was more pronounced in Senryu. This suggests that open-minded readers connect more deeply with the minimalist and evocative nature of these poetic forms. Intellect, typically associated with abstract thinking and intellectual engagement (DeYoung et al. 2009) was found to be strongly linked to the emotional impact of being moved in Senryu but not in Haiku, supporting our expectation. This suggests that intellectually oriented readers

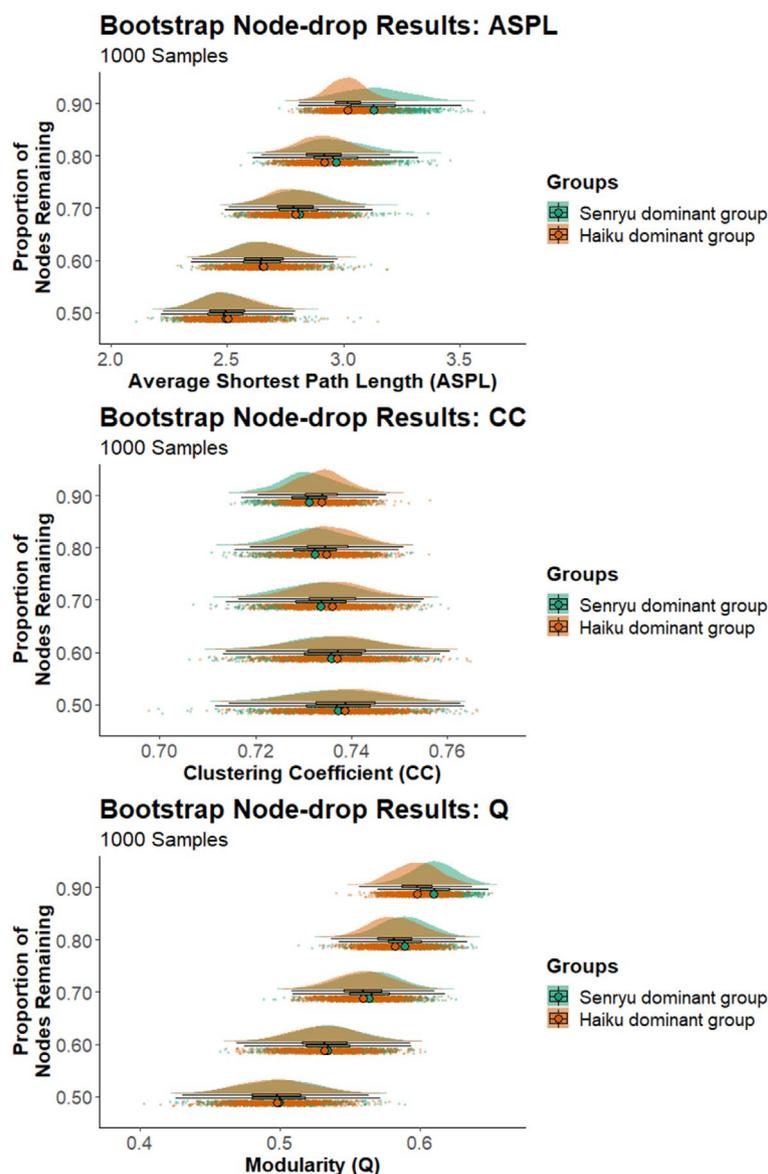


FIGURE 7 | Plots of the Bootstrapped partial network measures (1000 samples per percentage of nodes remaining). Each panel shows density plots above the box plots and scatterplots, where individual dots represent single samples. The black dot in each scatterplot indicates the mean value for the respective group and percentage of nodes retained (Christensen and Kenett 2023).

might use their reflective capacity to guide their judgments of emotional engagement (Van der Veer and Valsiner 1991; Smagorinsky 2021), thereby enhancing their overall creativity assessments of this genre. The lack of influence of Intellect on Haiku's creativity judgments underscores its direct, simple, and nonintellectual appeal, in contrast to Senryu's more intricate portrayal of human experiences. Similarly, higher AVIQ scores were associated with a stronger emotional impact in both genres, though more pronounced in Senryu. Haiku's simplicity and its use of concrete natural images, along with Senryu's focus on human nature and experiences, appear to engage the reader's auditory faculties. Further, in Senryu, VVIQ trait was strongly linked to the emotional impact of being moved—a relationship not observed in Haiku. Our predictions regarding the influence of imagery ability traits were thus partly supported. This suggests that those with vivid sensory imagination were more attuned to the creative nuances of both forms, particularly in Senryu. These nuanced findings suggest that the positive

influence of individual differences on creativity judgments was more pronounced in Senryu than in Haiku.

4.3 | Role of Semantic Memory Networks on Genre-Preference

Our investigation of semantic memory networks offers additional insights into the cognitive mechanisms underlying preferential judgments of creativity in Haiku and Senryu. Individuals who preferred Haiku exhibited a more efficient semantic memory network, characterized by a lower ASPL, lower CC, and lower modularity (Q). This suggests a more interconnected and effective network structure (Anderson 1983; Wang et al. 2023). Previous research has associated lower shortest path length and greater network efficiency with higher creative ability (Benedek et al. 2017; Kenett et al. 2016, 2014; Kenett and Faust 2019). In this study, the minimalist form of Haiku may resonate with

individuals who possess a more integrated and flexible semantic network. Such readers are likely more adept at forming novel associations between concepts—a key aspect of creative thinking. Appreciating Haiku, compared to preferring Senryu, might require a more efficient semantic network structure that enables the seamless integration of diverse ideas into a cohesive experience.

Conversely, a higher CC in the Senryu-preferred group of readers suggests that concepts in the semantic network were more tightly clustered, indicating a more rigid or compartmentalized structure. This may lead to a preference for familiar and relatable themes in Senryu, as readers were more likely to draw connections within closely related clusters. Consequently, while Senryu's focus on human experiences resonated emotionally, it might limit the exploration of more diverse or novel associations, as compared to the freer, more fluid structure of Haiku. Additionally, the semantic network of the Senryu-preferred group was more (albeit very little higher) modular, indicating the rigidity of thoughts (Kenett et al. 2015) of that group. This might have constrained flexibility in thought and interpretation of that group, leading to a narrower focus on specific themes and a more conventional approach to creativity judgments. Such a structure contrasts with the more flexible and interconnected semantic network seen in the Haiku-preferred group, highlighting the distinct cognitive processing styles associated with each poetic form. Therefore, our results indicate that while Haiku demands an interconnected and flexible cognitive approach, Senryu aligns with a more compartmentalized processing style, highlighting the diverse cognitive pathways through which poetry can be creatively appreciated.

4.4 | Limitations

Let us offer two practical remarks. First, our participants were not provided with explicit definitions of key constructs such as creativity, originality, and vivid imagery. Instead, they were asked to rely on their intuitive understanding and subjective experience when evaluating the poems or texts. While this approach allowed for a more personal and natural engagement with the material, it also introduced variability in the interpretation of these constructs. The lack of a standardized definition for these key terms may have led participants to apply their own definitions, thereby influencing the consistency and reliability of their ratings. Nonetheless, the use of intuitive judgments reflects how poetry is often experienced in real-world settings, where readers engage with the poems through their perceptual lenses and subjective experiences. Second, we exclusively considered award-winning poems. While this selection ensures a certain level of literary quality, it may not represent the full spectrum of Haiku and Senryu, particularly those that deviate from traditional forms or embrace experimental approaches. Awarded poems often adhere to specific standards and expectations within the literary community, which might bias the results toward what is traditionally recognized as creative or original. This focus on a narrower subset of poems might limit the generalizability of the findings. Finally, a potential limitation of this study is the influence of participants' prior familiarity or knowledge of Haiku and Senryu. Although genre labels were removed during stimulus presentation to minimize biases, familiarity with these poetic forms may

have subtly influenced evaluations. Future studies could include pre-task assessments of familiarity to better control for this factor.

5 | Conclusion

In today's fast-paced world, where attention spans are short and judgments are made rapidly, this study sheds light on how creativity is evaluated in brief, structured texts like Haiku and Senryu. Our findings highlight that while originality is crucial, the nuanced interplay of aesthetic appeal and emotional engagement plays a significant role in creative evaluation. Haiku's elegant tone, associated with emotions, and Senryu's sensual and lighter, often satirical depth demonstrate that even within constrained formats, these poetic forms embody creative potential. These findings may have implications beyond the realm of poetry, extending to contexts where brief, structured communication is valued. Whether in advertising, social media, or educational settings, understanding how aesthetic appeal, emotional engagement, and originality contribute to rapid creativity judgments can inform how messages are crafted and perceived. Moreover, recognizing the role of individual differences in these judgments highlights the importance of tailoring the creative content to diverse audiences. In essence, this study offers a framework for appreciating how structured brevity evokes rich creative experiences, emphasizing the power of simplicity and precision in evoking meaningful engagement and appreciation.

Ethics Statement

Ethical approval was granted by the local Ethics Committee of the Department of Psychology, Goldsmiths, University of London.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data, analysis scripts, and study materials are available on the Open Science Framework (OSF): https://osf.io/sm864/?view_only=47eabba4c3764461964c048c3adc682c.

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Supporting Information

Additional supporting information can be found online in the Supporting Information section.