Interaction between Creation and Appreciation: How Linguistic Art Creation Impacts the Aesthetic Evaluation of Haiku Poetry and Ink Paintings

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Article

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Abstract

In the psychology of aesthetics, compared to appreciation, there are fewer studies on art creation. This study aims to examine the influence of art creation on appreciation using haiku poetry with reference to the Mirror Model—a process model combining creation and appreciation. Although the model has been primarily used to examine visual arts, we examine its applicability to linguistic arts. In addition, we use ink painting to examine whether a generalization across artistic genres can occur. The 115 participants were divided into two conditions—creation and control. The former created haiku before and after appreciation, while the latter did not create any haiku. The results showed no improvement in evaluation through creation. Additionally, recognizing the difficulty related to creation leads to aesthetic evaluation, and this relationship is mediated by awe. These results expand the existing information regarding the Mirror Model in terms of the different art genres.

Introduction

While the world’s shortest literature form, the haiku, is part of the Japanese curriculum and everyone in Japan has had a creative experience with it, it has been adopted in language classes around the world. As haiku poet Madoka Mayuzumi revealed, creation and appreciation are closely related in haiku:

Haiku requires appreciation as well as actual creation. The ability to appreciate haiku and the ability to write haiku are two wheels of a car. The more one's ability to create haiku improves, the more one's ability to appreciate haiku will naturally improve (p.122)

In the educational context, the importance of creating haiku has been highlighted alongside understanding and enjoying it.

This tendency to favor appreciation is not limited to haiku but is prevalent in the domain of the psychology of aesthetics, on which there are fewer studies related to art creation than to art appreciation. In this context, Tinio proposed an aesthetic experience model that reflects the interaction between appreciation and creation. This model, called the Mirror Model, is constructed to combine the existing creation and appreciation models of visual arts. The aesthetic experience begins with the recognition of the superficial features of a work, followed by its hidden meaning and context; the experience peaks when the concept of personal relevance is grasped, which is a process mirrored in the experience of creation. In other words, creation conversely begins with concepts of personal relevance, which are then incorporated or extended in the work, upon which superficial adjustments and finishing touches are finally applied. Although the Mirror Model can be applied to art experiences other than the visual arts, such as writing, photography, and music, scope for further research remains as no empirical study has been conducted focusing on the linguistic arts.

Ever since this model was introduced, there has been an active movement to consider art creation and appreciation together. For example, Specker et al. studied viewers’ utterances in a laboratory and
a museum, and examined whether viewing paintings occurred in the order proposed by the Mirror Model. The results indicated that, while the viewing process was indeed supportive of the Mirror Model, the model itself needed to be improved, as the results could differ depending on the motivation of the participants. In a study that also focused on creation, Matsumoto and Okada\[10] empirically examined the influence of creation on appreciation. They found that the participants in the group that created origami before appreciation had higher liking and admiration of origami pictures than those in the group that did not create origami. Additionally, they found a positive correlation between difficulty in the perception of creation and admiration.

Based on these observations, in this study, we examined the influence of creation on appreciation and evaluated it with reference to this research. We focused on haiku as a linguistic art that was most suitable for this study for three reasons: First, previous studies have dealt mainly with visual arts such as painting and pictures of origami, and have not examined linguistic arts. In other words, the Mirror Model can be further elaborated by examining whether it can be applied to linguistic arts using haiku. Second, haiku is said to be the world's shortest form of poetry\[13] and because it can be created in a short time, participants can create and appreciate haiku while retaining their concentration. Third, given that haiku creation about nature and negative events promotes creativity more than narrative creation about neutral themes, the impact on appreciation after haiku creation can also be expected.\[14] Moreover, by incorporating the appreciation of ink paintings—visual art—we will attempt to extend the previous study by determining whether the creation of one genre of art affects the experience and appreciation of others.

**Method**

This study was approved by the Ethics Review Committee of the Graduate School of Education, Kyoto University (CPE-488) and all methods were performed in accordance with the relevant guidelines and regulations. The materials, data, Qualtrics project, and R scripts used in the study are available online (https://osf.io/z84ek/?view_only=bc994a07ed83486aa7464a2346a2ac199).

**Participants**

A total of 125 individuals were recruited via CrowdWorks (https://crowdworks.jp/) to participate in an online experiment using Zoom and all of them signed informed consent. They were randomly divided into two conditions, creation and control, with 61 participants in the former and 54 in the latter, for a total of 115 participants ($M=38.78, SD=11.50$, 73 females, 38 males, and four others). Those with duplicate IP addresses or extremely short response times were excluded.

**Materials**

We prepared haiku as the main art form of study, ink paintings to examine the generalization of the effect of creation, and catchwords, that the control condition evaluated instead of the creation. For the haiku
stimuli, we extracted haiku that corresponded to categories such as weather and plants from a prior collection. \cite{15} (Kadokawa Gakugei Publishing, 2012). For a preliminary survey, we selected 45 haiku poems that inspired a sense of awe among four participants who did not participate in the main experiment. With regard to the ink paintings, 45 works were selected from stimuli available on the Internet, such as ColBase (https://colbase.nich.go.jp/), which were then standardized to a size of 334 x 500 pixels. For the catchword stimuli, 11 categories of mottoes related to such topics as traffic safety and taxation were collected from the Internet.

**Procedure**

The procedure was based on two studies: one on origami creation and appreciation\cite{10} and another on the effects of haiku appreciation and creation on ambiguity tolerance\cite{16} (Fig. 1). Participants first underwent a pre-appreciation of five works of haiku and ink paintings each. The four evaluation items were beauty, awe of art, awe of the artist, and recognition of the difficulty of creation, and were rated on a seven-point Likert scale. Previous studies have measured admiration, but admiration is similar to awe\cite{17} and because the relationship between haiku appreciation and awe has already been studied, \cite{18, 19} we adopted the same items reflecting awe.

Next, the creation condition was given the seasonal word “cherry blossom” and 20 minutes to compose a haiku. Following the free writing style, participants recorded all of their feelings, thoughts, and fragments of opinions for their haiku poems during the haiku creation process and, at the end of the session, selected the one they felt was the best. The control condition consisted of 20 minutes of appreciating catchwords with a 5-7-5 structure, similar to haiku but with less literary and artistic quality and required no creation. The participants then engaged in post-appreciation, evaluating 20 works of haiku and ink paintings each using the same items as in the pre-appreciation. They were then asked, “Has your point of view changed since the first appreciation and evaluation? If so, please describe the kind of change.” Finally, they answered a questionnaire to record their demographic data. The appreciation task, creation task, and questionnaire were all created using Qualtrics (https://www.qualtrics.com/).

**Data Analysis**

Per the procedure followed in a previous study, \cite{10} we conducted an analysis of covariance (ANCOVA) in which pre-appreciation scores were controlled for and the conditions explained post-appreciation scores. For mediation analysis, a bootstrap method with a sample size of 5,000 was used to examine a model in which the relationship between recognition of difficulty and aesthetic evaluation is mediated by awe of art and artists. All of these analyses were conducted using R (4.1.2).

**Results**
Descriptive statistics and t-test results for the four items measured are presented by stimulus (haiku, ink painting) and pre-post values (Table 1). No differences between conditions for any of the items were found.

<table>
<thead>
<tr>
<th>Creation</th>
<th>Control</th>
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<tbody>
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Table 1

**Descriptive Statistics for Each Item and t-test Results between Conditions**

<table>
<thead>
<tr>
<th></th>
<th>Creation</th>
<th>Control</th>
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<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Haiku</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beauty: Pre</td>
<td>4.99</td>
<td>.70</td>
</tr>
<tr>
<td>Beauty: Post</td>
<td>4.77</td>
<td>.77</td>
</tr>
<tr>
<td>Awe for Art: Pre</td>
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<td>.89</td>
</tr>
<tr>
<td>Awe for Art: Post</td>
<td>4.59</td>
<td>.86</td>
</tr>
<tr>
<td>Awe for Artist: Pre</td>
<td>4.53</td>
<td>.96</td>
</tr>
<tr>
<td>Awe for Artist: Post</td>
<td>4.61</td>
<td>.91</td>
</tr>
<tr>
<td>Difficulty: Pre</td>
<td>5.06</td>
<td>.91</td>
</tr>
<tr>
<td>Difficulty: Post</td>
<td>5.10</td>
<td>1.00</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Ink painting</th>
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</thead>
<tbody>
<tr>
<td>Beauty: Pre</td>
<td>4.96</td>
<td>.81</td>
</tr>
<tr>
<td>Beauty: Post</td>
<td>4.94</td>
<td>.70</td>
</tr>
<tr>
<td>Awe for Art: Pre</td>
<td>4.73</td>
<td>.89</td>
</tr>
<tr>
<td>Awe for Art: Post</td>
<td>4.79</td>
<td>.73</td>
</tr>
<tr>
<td>Awe for Artist: Pre</td>
<td>4.80</td>
<td>.97</td>
</tr>
<tr>
<td>Awe for Artist: Post</td>
<td>4.84</td>
<td>.80</td>
</tr>
<tr>
<td>Difficulty: Pre</td>
<td>5.50</td>
<td>.79</td>
</tr>
<tr>
<td>Difficulty: Post</td>
<td>5.48</td>
<td>.84</td>
</tr>
</tbody>
</table>

Next, we examined the effect of condition on post-appreciation haiku beauty scores while controlling for pre-appreciation haiku beauty scores and found that the effect of condition was not significant ($\beta = .08$, $SE = .13$, $t = 1.07$, $p = .29$; Fig. 2A). Similarly, the effect of condition was not significant for awe of artists and recognition of difficulty as well. However, it was significant for awe of art, although the direction of the effect was contrary to the hypothesis, with the control condition feeling more awe toward the post-
appreciation haiku ($\beta = .14, SE = .13, t = 1.87, p = .06$). The effect of condition was not significant for all four items for ink paintings (Fig. 2B).

Additionally, mediation analysis to examine the relationship between recognition of difficulty, awe, and beauty revealed a significant indirect effect of awe of the art and the artist ($b = .49, SE = .07, z = 6.65, p = .00; b = .42, SE = .08, z = 5.33, p = .00$, respectively), indicating full mediation (Fig. 3). In other words, the recognition of the difficulty in creating haiku evokes a sense of awe toward the art and artist, which represents the beauty of haiku (see Supplementary Table 1 for detailed statistics).

**Discussion**

While the Mirror Model\[^6\] that reflects the interaction between art appreciation and creation has been limited to studies of visual arts, this study expanded the scope of the model by focusing on a linguistic art form. The results revealed that in haiku, while the impact of creation on appreciation was not demonstrated, the recognition of creative difficulty in appreciation had an important relationship with a sense of awe.

**Influence Of Haiku Creation On The Aesthetic Evaluation Of Haiku And Ink Painting**

The first finding revealed that the presence or absence of creation did not influence later evaluation, which may be attributed to the difference in art genres. Prior studies have suggested that tracing the creative process, rather than the creation itself, influences subsequent evaluation.\[^10,20\] In other words, it is believed that all Japanese have experienced creating haiku and that it is possible to trace its creative process without having created it before. Considering that linguistic art, especially haiku, relies on mental images (Hitsuwari & Nomura, 2022a), it would be easier to trace the creative process even without actual objects in this type of art form than in the visual arts.

It is noteworthy that some of the free writing responses during the post-appreciation of the creation condition included descriptions such as, “I found it difficult to write haiku after creating the haiku” and “Since it was after creating the haiku, I wondered how the poet was feeling, thinking, and describing the landscape,” which suggested that some participants had been influenced by the creation of haiku. Because the presence or absence of literacy and prerequisite knowledge strongly influences the appreciation and liking of haiku,\[^21\] the results suggest a greater variance in the appreciation and evaluation process for linguistic arts compared to visually aesthetic stimuli such as origami. The Mirror Model does not necessarily apply to different genres of art—in other words, the different processes required in the creative process—indicate a renewed need to construct an alternative model.\[^22\] Another possible interpretation is that the non-creation condition’s catchword evaluation task was monotonous, resulting in an even higher post-evaluation score. It will be a future challenge to verify the validity of the non-creation condition’s tasks and set better tasks for this condition.
Mediating Effects Of Awe On The Relationship Between Difficulty And Aesthetic Evaluation

The second finding revealed that the recognition of difficulty in creation explained aesthetic evaluation through the mediation of awe. This extends previous research and further clarifies how the recognition of difficulty during art appreciation is related to beauty. Awe can be classified as an aesthetic emotion; \cite{17, 23} links between the evocation of awe and aesthetic evaluation during haiku appreciation have also been reported\cite{16}. Additionally, the finding that artists feel awe to the extent that they perceive difficulties when creating their works can be explained by the fact that awe is an emotion that is also evoked when confronted with extraordinary skill and talent. \cite{24} Furthermore, the present study measured awe of art and awe of artists separately, with similar results. Although awe is an emotion one feels when perceiving vastness, whether it is the size of the work itself, the size of the mental landscape one imagines as a result of viewing the work, or the size of the artist’s ability is unknown based on previous studies that measured awe during art appreciation. \cite{25} It seems important to continue to carefully examine the objects of awe.

Limitations

In this study, we conducted an online experiment to take advantage of the potential of linguistic arts to allow creation without actual objects. However, in a previous study, creation and appreciation occurred in a laboratory setting. This may have affected the results because an online environment with many participants is different from an actual creative environment. However, free writing during creation suggested that almost all participants were concentrating on creation. In the future, it would be interesting to have participants create and appreciate their work in a laboratory setting consistent with the previous study or in an ecologically valid environment such as at a haiku gathering.

Conclusion

This study examined the effect of the creation of linguistic art on the evaluation of haiku and ink paintings with reference to the Mirror Model. Unlike previous studies in which the experience of creation increased likability and aesthetic evaluation, creation was found to have no effect on evaluation. The results suggest that the interaction between art creation and appreciation differs greatly depending on the genre, and the Mirror Model is not supported for linguistic art, especially haiku. We also found a new mechanism by which the recognition of the difficulty in creation leads to aesthetic evaluation mediated by a sense of awe. Future studies should examine not only one aspect of appreciation but also the relationship with creation for various art genres. The findings from these studies can be applied to the field of art as well as to educational situations in which creation and appreciation programs are conducted.

Declarations
Acknowledgment

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Author contribution

Jimpei Hitsuwari: Conceptualization, Methodology, Software, Formal analysis, Writing - Original Draft, Visualization

Michio Nomura: Conceptualization, Methodology, Writing - Review & Editing, Supervision

Competing Interest

We have no known conflict of interest to disclose.

Data Availability

All data are available online (https://osf.io/z84ek/?view_only=bc994a07ed83486aa7464a2346a2346aac199).

References


**Figures**

![Diagram of Haikus and Ink Paintings](image)

**Figure 1**

*Procedure and Examples of Haikus and Ink Paintings*

*Note.* The English versions of the sample haikus presented here are “The waterfall fell to roar in the ultramarine world” (upper haiku) and “Sunlight on the mountain in the far distance, winter field here” the (lower haiku).
Figure 2
Pre- and Post-Changes for Each Haiku (A) and Ink Painting (B) Item

Figure 3
Model showing the Recognition of the Difficulty of Creating Haiku Explains Beauty Mediated by Awe for Art (A) and Artist (B)

Supplementary Files
This is a list of supplementary files associated with this preprint. Click to download.
• supplementaryfile.docx