I, Yi Liu, hereby submit this original work as part of the requirements for the degree of Master of Design in Design.

It is entitled:
Case Study of Perception with Motion Graphic Music Video: The Relationship between Narrative & Representation

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Committee chair: Yoshiko Burke, M.F.A.
Committee member: Benjamin Meyer, M.F.A.
Case Study of Perception with Graphic Motion Music Videos:
The Relationship Between Narrative and Representational

A thesis submitted to the
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by

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Abstract

Motion graphics in music videos play a crucial role in musical expression; they are a way to visualize music and to help the audience understand it. Some music videos are very narrative and representational, some music videos are not. Despite this variation, it is difficult to determine the kind of visualization that could help the audience understand the meaning of music while appealing to their emotional involvement. This problem forces designers to take risks. This thesis will review and discuss how the relationship between Narrative and Representational aspects of a music video affects the viewer’s understanding and intellectual and emotional involvement in the content. In motion graphic music videos, the artist works with varying degrees of representation and narrative. Even though a strong representational narrative approach is expected to provide the highest level of comprehension and emotional involvement, a less representational approach with a higher degree of narrative actually increases the viewer’s emotional involvement.

Keywords: Narrative, Representation, music video, understanding, emotional involvement, motion, graphic
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Introduction

Music is a form of composition that can include instruments and vocals. Not only is it created with musical instruments, but it can also be created with singing. With the development of multimedia and other technologies, audiences expect to not only listen to the music, but also to see the music. There are many ways to visually communicate with music, and making a music video is one of them. The very first music video was made in the mid-1940s. The musician Louis Jordan made a short film for his songs, some of which were spliced together into a feature film entitled *Lookout Sister.* This film was, according to music historian Donald Clarke, the “ancestor” of the modern-day music video.

*Figure 1. Lookout Sister*, by Louis Jordan: the “ancestor” of music videos.

1 Louis Thomas Jordan was a pioneering American musician, songwriter, and bandleader who enjoyed his greatest popularity from the late 1930s to the early 1950s.
3 Donald Clarke (born 1940) is an American composer.
In the music video category, the content of the video can range between having a Narrative and a Non-Narrative structure.

A narrative structure should have at least a character or an object and a storyline that describes the character’s (or the object’s) activities, like mood swings or personal obstacles. A Non-Narrative structure means that sections or pictures in the music video may have characters or objects, but they do not have any obvious connections between what the viewer sees and what the narrative content means. Also, they may have visual or physical connections in the sense of the music video, but those connections or movements do not have any continuity and development; instead, they are more like random connections and movements than a clear story development. Some examples are now given to better illustrate narrative and non-narrative.

“Masiteladi” by Amadou et Mariam featuring M can be used as an example of Narrative. In this video, a character walks through different scenarios and faces different situations. The
activities of this character are linked together and have a straightforward meaning. When he looks at the ring and opens the door, someone throws plates at him, he rushes out of the room, and then he meets a devil. The story of this video is very clear.

![Figure 3. “Masiteladi,” Amadou et Mariam featuring M. An example of a Narrative music video.](image)

“Open,” by Rhye, is an example of a Non-Narrative music video. This is an unofficial stop-motion animation music video whose imagery was made with acrylic paint. The video’s content contains lots of drawn elements like circles, curves, and dots. The creator uses these elements to form objects such as a tree. The movements in this video obviously have connections between each other; however, this video is more like a slide show with random pictures. Some of the movements are based on the music’s rhythm, and it is hard to tell what is going on in this
video. Viewers do not understand what this video is communicating, as it carries no clear storyline or expressive motion elements, which often help the audience decode the meaning of the video content.

*Figure 4.* “Open,” by Rhye. An example of a Non-Narrative music video.

The form of the video can range from Representational to Non-Representational.

*Figure 5.* Range of the form of the video: Representation to Non-Representation.

Representation means that the characteristics and details of an object must be represented in an easily recognizable way. Non-Representational elements leave more space for the audience to use its imagination. Some viewers may think a form like a small square means a pixel; some
may say it represents a person. For example, the simple forms used in the video “Red” are geometric; however, they have some necessary details to represent flowers and insects that the audience can easily recognize.

![Image of geometric forms with some details to represent flowers and insects.]

Figure 6. “Red,” by Ned. An example of a Representational video.

“Beyond” is a video with Non-Representational objects. It is the same as the previous video, “Red,” which uses simple geometric forms. However, this video carries Non-Representational forms, which do not have enough details to make them recognizable. Without these details to define what those forms are, viewers have more room for imagination and can interpret the video content freely.
Figure 7. “Beyond,” by Poell. An example of a Non-Representational music video.

This coordinate graph indicates the combined result of content and form.

Figure 8. Motion graphic music video coordinate graph that combines content and form.

Based on these two different directions, graphic motion music videos can be categorized into four types: Narrative and Representational, Narrative and Non-Representational, Non-Narrative and Non-Representational, and Non-Narrative and Representational.
Figure 9. Four types of motion graphic music video, which are separated by their coordinates into four spaces.

Currently, there is no research about what kind of visualization can help the viewer understand the music. (Understanding means the audience can comprehend what the music means and what feeling this music intends to convey via a music video.) For example, a video with Non-Representational forms may help the audience understand its specific meaning. If the music discusses aspects of being a human, does the video have to present a human character? If there is a feeling that expresses horror in the music, must the video present fear to make the audience feel scared? This thesis analyzes categories of motion graphic music videos from Non-Narrative and Non-Representational to Narrative and Representational, investigating what
kind of visualization can help the audience understand and experience the meaning of the music (i.e., a songwriter’s intention).

Figure 10. Direction of the study.

This thesis deals with the iterative process of designing a music video. Through each iterative stage, the video will be built on different levels, from Non-Narrative and Non-Representational to Narrative and Representational. The final goal is to clarify which combination can help the audience understand the meaning of the specific song.

**Background**

Before studying the relationship between Narrative and Representation in a graphic motion music video, it is necessary to analyze some already existing videos in order to
understand why these videos work or not—I chose four different videos that represent the four aforementioned categories.

**Existing Motion Graphic Music Videos**

“**Themis.**” “Themis,” a motion graphic music video made by Dwinell Grant in 1940, represents a Non-Narrative and Representational video. Its music is entitled “Slowpoke,” by Devil Music. This song is six minutes and nineteen seconds long. The visual content is composed of geometric forms like squares, rectangles, and circles. The content moves via hits accompanied with a color change. However, it is hard to tell the meaning of the movements or the music in this video.

![Figure 11](image)

*Figure 11.* “Themis,” by Grant. “Slowpoke,” by Devil Music. An example of a Non-Narrative and Non-Representational music video.
“What Was a Wild Night.” This video is Narrative and Non-Representational (Figure 12). Compared with the first video, the characters and objects are complex and have many details. These details, produced by exaggerated and distorted techniques of expression, are seemingly incomprehensible to the audience. However, the video has a simple story the audience can understand despite that it may take awhile to interpret the narrative. Although the characters and objects are Non-Representational, the movements and activities they induce also enhance the audience’s understanding of the narrative.

Figure 12. “What Was a Wild Night,” Pupo. An example of a Narrative and Non-Representational music video.

“Continuum.” This is a Non-Narrative and Representational video. All of the characters in this video are very representational and elaborate. However, this video does not have a clear and specific storyline to describe what kind of mood this music intends to represent, what kinds
of connections these characters have, or what actions these characters plan. Although each character moves in this video, it is a mere series of actions, from blinking to floating. As the characters do not contribute to any narrative development, this video is Non-narrative and Representational.

![Figure 13. “Continuum.” An example of a Non-Narrative and Representational music video.](image)

“Imposter.” This is a Narrative and Representational video. The characters in this video are very specific: animals, plants, and humans. The audience can recognize each character in this video at first glance. This video’s characters and objects are very representational, despite that some objects, such as the top view of the forest at 01:49 (Figure 14) or the shadow of the character at 02:32, are not very recognizable; however, these are quickly identified.
Although this video still has some Non-Representational objects, they do not affect the audience’s understanding. Based on their understanding of representational elements, they can use their imaginations on the Non-Representational objects. Understanding the Representational elements helps them to have a better understanding of the Non-Representational objects.

The video has a clear storyline, even though some parts of it would not happen in reality. For example, flowers are falling down through the soil at 00:25 s (Figure 15-1) and then reach a person under the soil (Figure 15-2). The shadow of the character’s face transforms into a bear’s face at 03:21 (Figure 16). Although this Narrative development is surreal, it does not prevent the audience from understanding the video and the music. Therefore, if the Narrative focuses more on story development, it does not matter if this story really exists or is logical, as the audience can still understand the main points.
Figure 15-1. “Imposter,” Armstrong. Flowers falling down through the soil.

Figure 15-2. “Imposter,” Armstrong. A person under the soil.
Figure 16. “Imposter,” Armstrong. The character’s face transformed into a bear’s face.

What follows is a graphical representation of these videos and where they would be categorized within the spectrum of Representation and Narration.

<table>
<thead>
<tr>
<th>NON-REPRESENTATION</th>
<th>REPRESENTATION</th>
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<tr>
<td>What was a wild night</td>
<td>Imposter</td>
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Figure 17. Four types of motion graphic music videos.
Study

Description

This study reviews the relationship between Narrative and Representation in motion graphic music videos. It is hypothesized that in a motion graphic music video, the artist works with varying degrees of Representation and Narrative. Even though a strong Representational and Narrative approach is expected to provide the highest level of narrative Understanding and Emotional Involvement, a less Representational and Narrative approach actually increases the viewer’s Emotional Involvement.

Methods

Test elements: Individual videos. Four iterations of a video with the same music will be used as test elements in this study. The music “Niwaka Ame Ni Mo Makezu” by NICO Touches the Walls\(^4\) was chosen since its language, Japanese, is different from the test subject’s native language, so the official video is incomprehensible. The study on motion graphic music videos reviews the relationship between Narrative and Representation. Therefore, the meaning of the lyrics should not be a factor that affects the audience’s understanding of the music. In some

\(^4\) NICO Touches the Walls is a Japanese rock band formed in 2004.
videos, the lyrics describe the meaning of the music and directly help the audience understand the music. The language of this selected music is Japanese, which the test subjects are not familiar with. This condition lets the audience focus on the motion graphics and music without being influenced by the lyrics.

The original video for this music (Figure 18) is very confusing. The visuals are not related to the music.

![Figure 18. “Niwaka Ame Ni Mo Makezu,” NICO Touches the Walls. Screenshot of the music video.](image)

The translation for this music is “No matter [if] tomorrow is light or dark, as long as we are together, the world will become better finally.” However, in the video, there are many ballet dancers continuously jumping and spinning. Sometimes, the camera movement reveals the band playing. This video barely connects to the actual meaning of the music. After viewing this video, the participants indicated that they could not understand the meaning of this song.
Since they would not be influenced by lyrics, which could help them understand the actual meaning of the music, four individual videos were made based on different content levels from Non-Narrative and Non-Representational to Narrative and Representational (Figure 19).

The videos are monochromatic, carrying formal elements without many details and decorations. There are two versions in terms of length: the first one is four minutes and twenty-one seconds long, and the second one is one minute and thirty seconds long. The second version was used because the same segments are repeatedly shown in the first version. The second version not only maintains a sense of the wholeness of the completed melody, but also reduces the time necessary to complete the survey.

*Figure 19. Four individual videos. Newly made videos for “Niwaka Ame Ni Mo Makezu.”*
**Target group.** The music’s composer is Tatsuya Mitsumura, the vocalist and guitarist of NICO Touches the Walls. Ten people who do not understand Japanese participated in this survey, and these participants all have design experience or have been educated in the field of design or art. Even though they did not know some of the questionnaire’s answers, there are no unanswered questions. Ten of the participants are in the 20–30-year-old range. Six participants are female and four are male.

![Figure 20. Participants’ gender.](image)
**Survey instrument.** The survey environments are random and very casual. Six participants did this survey at the office, two participants used Facetime or Skype, two participated via voice chat.

![Figure 21](image.png)

*Figure 21.* The different survey environments used for the interviews.

The questionnaire contains a mix of likert scale and sorting exercises. All participants were asked to watch four individual videos first and then answer the question: What did the music mean? Based on their answers, they were asked more about why they had these thoughts or feelings. After the first question, participants graded each video on two aspects: Narrative and Representation (Non-Narrative = 0 and Narrative = 10; Non-Representational = 0 and Representational = 10). Because participants needed to grade all of the videos in this survey, the scores they gave to the four videos were all based on the same aesthetics. At second question,
every participant grades the videos with his or her own Understanding (cannot Understand = 0 and easily Understand = 10). Then, participants scored the videos by which video provoked the highest level of Emotional Involvement (no Emotional Involvement = 0 and high Emotional Involvement = 10).

The survey was collected electronically via Dropbox if conducted in a face-to-face environment. Vimeo and YouTube were used to shown the videos when the survey was conducted via video or voice chat. A snack was offered as compensation. The average length of the survey was from 30 to 40 minutes. Some participants spent more time on the survey (45 to 50 minutes) and some spent only 20 to 25 minutes.
Results

A coordinate axis was used for data collection: the y-axis signifies Narrative, and the x-axis signifies Representation. For example, x = 0 means a Narrative aspect got a 0, and y = 0 means a Representational aspect got a 0. All of the participants were asked to score each video. After collecting all of the Narrative and Representation data from the participants, the average score of Narrative and the average score of Representation were calculated. Then, all of the Narrative scores or Representation scores are added together and the combined scores were then divided by the number of participants.

For example:

\( P = \text{participants. } P_1 = \text{the score from Participant 1} \)

The number of participants = 10

Narrative:

\[ P_1 + P_2 + P_3 + \ldots + P_9 + P_{10} = P_{\text{Total}} \]

\[ P_{\text{Total}} / 10 = P_{\text{Average}} \]

Representation:
After each average score for Narrative and Representation was figured, four videos were ranked by their different levels of Narrative and Representation.

Some of the other questions asked were: Which video was the most Understandable? Which video caused the highest level of Emotional Involvement? All of the participants scored each video based on their Understanding of the video and their Emotional Involvement with the video on a scale of 1-10, with one being the lowest score and ten being the highest score. If a participant chose one as this video’s score, either the participant thinks the video is really hard to understand or he or she does not understand the video content at all. If a participant gives the video a ten, this means the participant Understands the meaning of the video easily or fully. The same scale is applied to the Emotional Involvement question.

After all of the scores were collected, the average score for “Understanding” and “Emotional Involvement” were calculated separately. The average score was evaluated by
adding all of the scores for “Understanding” and then dividing this by the number of participants.

The same calculation was used to determine the average score for “Emotional Involvement.”

For example:

\[(P = \text{participants. } P_1 = \text{the score from Participant 1})\]

The number of participants = 10

Understanding:

\[P_1 + P_2 + P_3 + \ldots + P_9 + P_{10} = P_{\text{Total}}\]

\[P_{\text{Total}} / 10 = P_{\text{Average}}\]

Emotional Involvement:

\[P_1 + P_2 + P_3 + \ldots + P_9 + P_{10} = P_{\text{Total}}\]

\[P_{\text{Total}} / 10 = P_{\text{Average}}\]

After calculating the average scores for Understanding and Emotional Involvement, the four videos were then ranked by their scores.
Analysis and Discussion

Figure 23 shows the results of the Narrative and Representation averages. The average scores for Narrative are as follows: Video 1 = 2.10, Video 2 = 4.00, Video 3 = 6.10, Video 4 = 8.15. The average scores for Representation are as follows: Video 1 = 1.40, Video 2 = 3.30, Video 3 = 6.30, Video 4 = 7.20. The four videos gradually increase from one to the next in terms of their levels of Narration and Representation. Video 1 is the least Narrative and Representational, and the levels of Narration and Representation in Video 3 is higher than the levels in Video 2. Video 4 got the highest level of Narrative and Representation. The results are illustrated as follows (from the lowest level of Narration and Representation on the left to the highest level of Narration and Representation on the right): Video 1 < Video 2 < Video 3 < Video 4.

Ten participants defined the same music video differently. People with different life experiences will give different answers. For example, although Video 4 is the one with the highest levels of Narration and Representation, one of the 10 participants gave the Narrative aspect a five, whereas the other participants gave Video 2 or Video 3 a five and gave a much higher grade to Video 4.
Figure 23. Results of Narrative and Representational scoring.

Regarding the questions about Understanding and Emotional Involvement, Figure 24 shows the testing results. The average scores for Understanding are as follows: Video 1 = 1.10, Video 2 = 2.50, Video 3 = 4.80, and Video 4 = 7.40. The Emotional Involvement average scores are as follows: Video 1 = 1.80, Video 2 = 3.40, Video 3 = 6.70, and Video 4 = 5.80.
Figure 24. Results of the Emotional Involvement and Understanding scores.

The results of the Emotional Involvement scores are different from the Understanding and Narrative and Representation scores. In the Narrative and Representation results, the four videos gradually increased and were arranged by participants in orderly rows. The Understanding results also display the videos in the same order as their numbers (1-4). But the results of Emotional Involvement are different: the videos’ order (1-4) is disrupted, meaning the Emotional Involvement results do not gradually increase. Video 4 is not the most Emotionally involved video. The most Understanding video is Video 4, and Video 3 has lower Understanding scores but is still higher than Video 2. Video 1 has the lowest Understanding score. But in the
Emotional Involvement results, the highest video is Video 3, and Video 4 has a slightly lower score than Video 3. Video 2 is graded lower than Video 4, followed by Video 1. Interestingly, Video 3 has a lower Understanding score than Video 4, whereas Video 3 has more Emotional Involvement than Video 4. For example, when people saw a Möbius strip, they thought about different worlds, different ways to solve problems, or different sides of human nature. But Video 4 was too direct to provoke Emotional Involvement, as most participants answered similarly about representation, like two balloons represented people or were facing trouble.

In these interviews, ten participants all responded that they felt Video 4 was the most Understandable version—no participants felt confident about their Understanding of Video 1.

The diagram clearly illustrates the relationship between Understanding, Narrative, and Representation. In this case study, the video with a higher level of Narrative and Representation got a higher Understanding score, which means these help the viewer understand the music. On the contrary, Emotional Involvement is not influenced by the level of Narration and Representation or Understanding. This indicates that the video with the highest level of

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5 A Möbius strip is a surface with only one side and only one boundary component. The Möbius strip has the mathematical property of being non-orientable. It can be realized as a ruled surface. It was discovered independently by the German mathematicians August Ferdinand Möbius and Johann Benedict Listing in 1858.
Understanding did not provoke the most Emotional Involvement. Further, it indicates that participants did not think that the video with the highest level of Understanding could provoke the most Emotional Involvement. On the contrary, the levels of Narrative, Representation, or Understanding do not influence Emotional Involvement. In the testing, videos scored with a lower level of Understanding than Video 4 did provide the audience with more Emotional Involvement than Video 4.

Conclusion

From the results, a strong Narrative and Representational approach got the highest scores of Understanding, though this approach did not offer the viewer the most Emotional Involvement. Video 4 got the highest Narrative, Representation, and Understanding scores, but it was not the most Emotionally Involved video. Video 3 had lower Narration, Representation, and Understanding scores and the highest Emotional Involvement score. Comparing these two videos, the forms and activities in Video 4 are detailed and realistic, and people do not need to take time to figure out what is going on. This is why Video 4 is the most Understandable video. Different
from Video 4, Video 3 still has some geometric forms that people can associated with life experiences. For example, the Möbius strip is infinitely great in math, and some participants think it represents an endless world or trouble that is increasing. People have a lot imagination regarding such unclear forms. This survey proves that a strong Representational Narrative video is expected to provide the highest level of comprehension and Emotional Unvolvement; further, it proves that a less Representational approach with a higher degree of Narration actually increases the viewer’s Emotional Involvement.

In this study, although four videos were supposed to be made to follow a gradually increasing level of Narration and Representation, the test results shown that some videos do not reach these standard levels and deviate slightly. All of the survey participants have design experience or are educated in the field of design or art. So, people who do not know design or art may give different answers in the questionnaire. The conclusion is that participants preferred the videos with less Narrative and Representation because these provoked the greatest level of emotional involvement. This is because the participants are forced to become more personally engaged, would like to have more space for their own imagination, and would like the
opportunity for their own intellectual involvement. When the video is too Narrative and

Representational, participants just accept and receive information without thinking, decoding and

re-interpreting.
References


Appendices

Newly made videos for “Niwaka Ame Ni Mo Makezu.

**Video one.** Storyboard for Video one.
Animated version for Video one.
Video two. Storyboard for Video two.
Animated Video two.
Video three. Storyboard for Video three.
Animated Video three.
Video four. Storyboard for Video four.
Animated Video four.
The study questionnaire

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