

# DESIGNING A RABBIT CHARACTER'S WAITING MOTION IN 3D ANIMATION SHORT "YUE BING"

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**Abstract:** The writing is grounded from the writer's interest on character animation process in an animation production, which becoming more popular in Indonesia these days. This particular research is all about the process of designing a rabbit character's motion while waiting in the 3D animation short "Yue Bing", so the happiness and enthusiasm, also the sadness and desperation felt by the character can be delivered to the audiences. This is done through the use of body language theories, secondary action, and timing animation principles. Throughout the process, research is done by looking at still and moving images on body language, secondary action, and timing as references, that later is translated to the three-dimensional software.

**Keywords:** character animation, anthropomorphic, body language

## Introduction

According to Blair (1994), animating process is a process of giving an impression of life to a character's motion, either it is a human character, animal, or an inanimate object, through sequences of drawings. Blair added that animating aims to create a living character who thinks and feels. If those are achieved, audiences will believe the character's existence and will be able to sympathize with the character. This concept of animating that is able to create a living character became the rea-

son of this research. Through a living, thinking, and feeling character, audiences can sympathize with a story in a film; thus, making it possible for them to enjoy the story.

"Yue Bing is an animated short film that tells a story of the Rabbit Family: Papa, Mama, and Dede who are expecting to celebrate Chinese Moon Cake day together. A family – drama genre of film which aims to raise a story about the relationship between parents and a child called Dede in a rabbit world. Their rela-

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tionship is likely to become estranged due Papa's job as a hard working parent.

## Research Purpose

The writer wanted to achieve that by de-signing the anthropomorphic rabbit character's (Dede's) motion while waiting in the 3D animation short "Yue Bing" through the use of body language theories, secondary action, and timing animation principles. This aims to create a waiting motion for the character that can deliver two different emotions in two different scenes: happiness/enthusiasm and sadness/desperation in the waiting action itself. By achieving those things, the film's story and message can be delivered to the audiences.

## Research Method

This research is done by literature studying: reading books and journals about animation, human and rabbit body languages, and animation principles. Other than that, observations on images, videos, and movies are also done in order to get ideas on how to apply the theories into the design of the character's motion.



Figure 1. Characters in Yue Bing Film

## Literature Review

Animation is a process of drawing or taking a picture of a human, an animal, or an object in a continuous sequence to cre-

ate the illusion of movement. On the early days, animation as an art can only be seen in 2D form. Jones and Oliff (2007) argued 3D animation created through computers started to grow in the 1990's. Despite the differences, Osborn (2015) explained that although made in a 3D software, 3D animation have to be thought in 2D animation thinking. It is caused by the fact that 3D animation will still be seen through a flat screen as 2D images.

## Animation Principles

Frank Thomas and Ollie Johnston (1995) explained the twelve animation principles. The twelve principles are squash and stretch, anticipation, staging, straight ahead and pose-to-pose, follow through and overlapping action, slow in and slow out, arcs, secondary action, timing, exaggeration, solid drawing, and appeal. This research focuses on the secondary action and timing principles.

## Body Language

Bingham (2003) said that there are many ways humans talk and not all of them is through verbal communication. One nonverbal communication is through humans' body language: how they stand, how their hands and feet positioned; all of them are affected by what is thought or felt at the moment. This is proven by Lukmanto (2018) in a documented animation film "Broken Faith" utilizing hand movement in showing fear, rigidity, despair, hope-ful as audience's emotional experience of being haunted by the fear.

According to Raah (2015), hands' position can show either comfort or discomfort felt by a person and how humans' body language is affected by what is felt. Buseth, M. E., & Saunders, R. (2014) claimed that rabbits are quiet animals due to their role as preys in nature. They

try not to make a sound that can attract predators around them. A happy rabbit moves actively: it hops and runs here and there. One of its ears also stands upright facing a sound source. A rabbit's nose twitches constantly about 2-120 times every one minute, depending on how much stimulus it receives. Moore (2005) suggested that a happy rabbit moves its head fast while running or playing. A sad or angry rabbit has its ears down and facing backwards. Feet thumping to the ground is a sign of fright. This can happen when a rabbit sees or hears something new and unfamiliar to it.

Another habit of rabbits is rubbing their chin to a thing, other animals, or even a person. This is called chinning and it is done by a rabbit when it is trying to explore and mark territory. Rabbits also stand with their hind legs when they are trying to know or look at something better.

## **Rabbit Ears**

When a rabbit is happy, its ears stand upright and facing a sound source. Its nose also twitches faster when it feels curious. However, when a rabbit feels unhappy, its ears will be down and back. The nose also twitches slower, not as fast as when it is happy or enthusiastic. Some references for these secondary actions are obtained in the video "All About Bunny Behaviour" (2018) which is uploaded by 101Rabbits on Youtube, and "Rabbit Body Language" (2018) which is uploaded by Lennon The Bunny.



Figure 2. A happy rabbit's ears position  
(Source: "All About Bunny Behaviour" (2018) uploaded by 101Rabbits on Youtube)

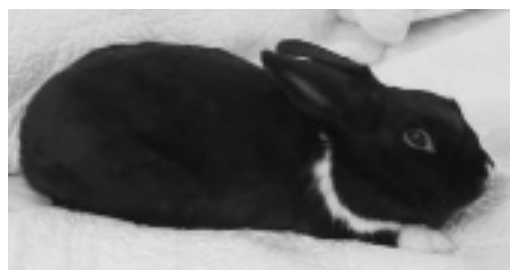


Figure 3. An unhappy rabbit's ears position  
(Source: "Rabbit Body Language" (2018) uploaded by Lennon The Bunny)

## **Waiting**

According to Schweizer (2008), waiting touches a broad spectrum of emotion. Sadness, anger, and anxiety are possible to be felt. It becomes even more difficult because while waiting, time seems to move really slowly. These uncomfortable feelings then encourage people to do little activities to bare the waiting, such as twitching their fingers or looking at the time.

Studying this, Mischel as quoted in Holton (2009), found that kids tend to be able to wait longer when there are things that distract their attention from what they are waiting for. They can do that by themselves by, for example, laying their head on their arms, twitching or playing with their hands or feet, or even trying to sleep while waiting.



## Animating Process

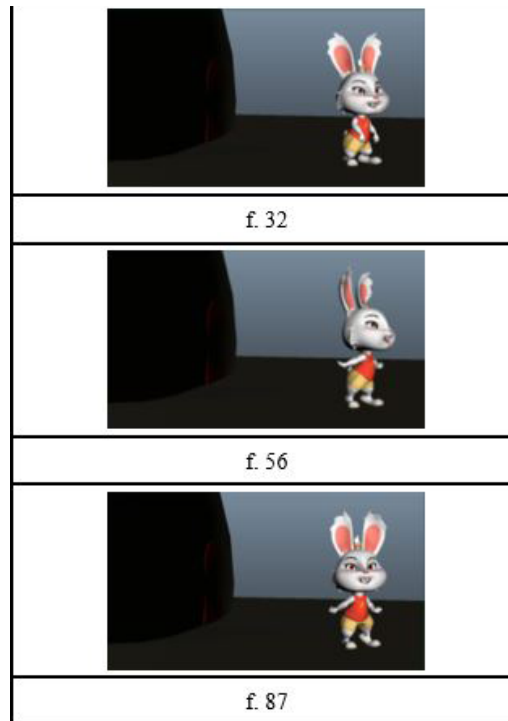
The results of literature study and observation about body language, secondary action, and timing then applied to the design of the rabbit character's motion while waiting in the short 3D animation "Yue Bing". The design's result is explained in two different sections based on two different scenes that have different emotions to deliver: waiting with happiness/enthusiasm.

## Happiness and Enthusiasm

Scene 06 shot 01 is the scene where the rabbit character waits with happiness and enthusiasm. The waiting in this scene is divided into three actions: running, standing, and looking for other character. Below is the table that sums up the design's result. It moves and hops actively, leans towards something that they like and stands on their hind legs. Hands are positioned on the side of the body, not covering certain body parts, and can be moved freely. When a rabbit is unhappy, it will not move actively. The nose also twitches slower, not as fast as when it is happy or enthusiastic.

Table 1. Design's result for the motion in scene 06 shot 01

Motion Thumbnail and Frame Number
 <p>f. 10</p>
 <p>f. 14</p>





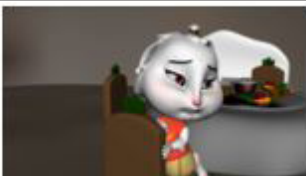

The rabbit character's actions in this scene are made with fast timing. Fast timing associated with happiness, while slow timing is associated with sadness. Fast timing means short duration and more distanced spacing, where actions feel jumpy, bouncy, energetic, and light. The body language is also made to be big and open with the ears standing upright and the nose twitching in high frequency. Those things are done based on the literature study and observation to deliver happiness and enthusiasm felt by the character while waiting.







## Sadness and Desperation

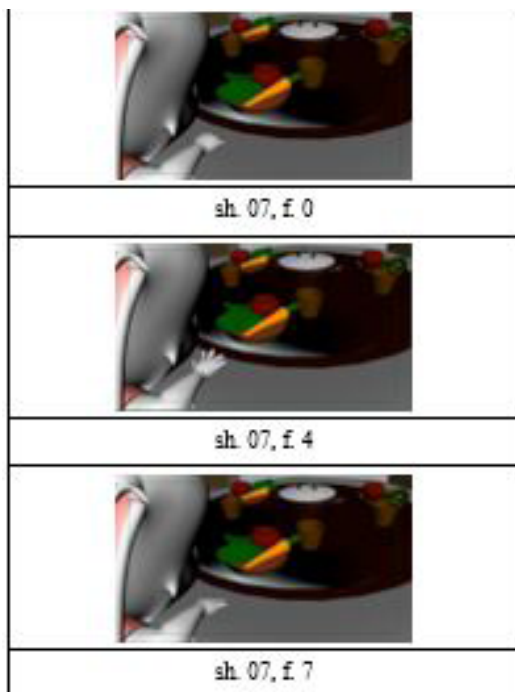
The shots sequence in scene 09 shows the rabbit character waiting with sadness and desperation. She is looking small with the head looking down, shoulder lowered, and the back bent forward. Hands and feet are put close to each other. It used a slow timing which means longer duration

and tighter spacing, where actions feel heavy and not energetic. She tends to do little activities to distract their attention from time and what they are waiting for. The act of waiting in this scene is divided into five actions: looking at a clock, sitting while waiting (divided into two different shots), swinging legs, and twitching fingers on a table. Summary of the sequence of those actions is shown in the table below.

Table 2. Design's result for the motion in scene 09 sequence

Motion Thumbnail, Shot Number, and Frame Number

sh. 02, f. 0

sh. 02, f. 12

sh. 02, f. 61

sh. 03, f. 0


sh. 03, f. 36

sh. 05, f. 0

sh. 05, f. 34

sh. 06, f. 0

sh. 06, f. 16

sh. 06, f. 18



Contrasting the waiting motion in scene 06, the waiting in scene 09 is made with slow timing. The rabbit character's body are posed to be small and reserved with the ears down, head looking down, shoulders lowered, and back bending forward. The nose also twitches with much lower frequency compared to when the character feels happy and enthusiastic.

Other than that, the rabbit character also does some little activities as secondary action, such as twitching the fingers on the table and swinging the legs. All those are made to deliver the sadness and desperation felt by the character, different from the previous scene.

## Conclusion

In designing the rabbit character's motion while waiting in the short 3D animation "Yue Bing", the writer has to understand the meaning of humans' and rabbits' body language when they feel

happy, unhappy, and while waiting. This made the writer can combine the humans' and rabbits' body language to create a motion that is unique to an anthropomorphic rabbit character. The understanding of those body languages also helped the writer to design the motions that are able to deliver the character's emotions in two different scenes. For example, in scene 06 shot 01 when the character is happy, the body languages became bigger and more open. On the other hand, in the scene 09 sequence when the character is sad, the body language became smaller and more reserved.

Other than the understanding of body languages, the writer also has to understand the secondary action and timing principles, how they affect the character's motion, so they can deliver the happiness and sadness felt by the rabbit character. For example, how a rabbit's ears move when it is happy and sad or how fast its nose twitches as secondary actions. The timing of the actions, fast or slow, can also affect how the audiences perceive the character's emotion.

As an attempt to understand those three things, the writer collected theories and information through literature studies by reading some books or journals. The writer also did some observations to collect images and videos as references for designing the anthropomorphic rabbit character's motion. References collected act as real examples or guides in applying the theories studied to the character's motion in three-dimensional software. The application process are done while paying attention to the animation principles, especially the secondary action and timing. This aims to create motions that feel dynamic and organic while also success in delivering the happiness and sadness felt by the character as the design's result.

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