

“PANAWA” ANIMATION MOVEMENT DESIGN: RAT CHARACTER WITH HUMAN PERSONALITY

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Abstract: Good animation movie needs to be communicative and deliver its meaning to the audience. One of the most important aspects is to design an effective movement for the animation. In movement, the thoughts and characteristics of a character are shown. Expression of a characters can be seen through their movement and body gestures. Body gestures show us an expression, emotions, traits, thoughts, and each different characters. Characters don't move effectively if the movement doesn't correspond to its characteristics. To understand the characteristics we need to understand each characters physiology, sociology, and psychology. In this research, the author explains and analyze the process of designing a rat movement with a human personality.

Keywords: animation, movement, body language, expression

Introduction

Animation is not just a moving picture. In animation, there are things that need more attention. Some of that is how movement can convey the emotion. Emotions can be demonstrated through movements that convey the information from an object (Whitaker, et al., 2008). In the design of movement, body language need more attention. Body language can represent as a feeling and reaction from the character. If in movement already seen emotions and feelings, then the movement created is good (Roberts, 2011). If it isn't designed as well as possible, then the result will look unreal and feels awkward. When the movement has been designed, the addition of facial expressions can

also be used to strengthen the emotions which want to be conveyed.

In the design of motion on the animation of “Panawa”, the author is interested to design the rat movement that has human personality. Therefore, the movement designed not only focus on to the principles of animation and body language. The author must observe and then combine the characteristics and habits of rat into the movement and human body language. This is done because the movement of human in the form of rat will certainly have some mouse habits that appear without realizing it.

This research is conducted so that the movement designed could show the

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same characteristics as the concept. Therefore the formulation of the problem in this research is how to design the movement of rat character with human characterization in the animation “Panawa”.

Body Language

Body language is a reflection of a person’s emotional state in a particular situation. Any movement that person does can be a reflection of his feelings at the moment (Pease & Pease, 2004). In animation, sorting out body language is the first thing that we have to do when moving a character (Roberts, 2011). When in the movement can be seen the emotions and feelings of the characters with just through its body language, then the movement is created well. The addition of a facial expression to the movement can strengthen the emotion that want to be conveyed. There are four basic posture in human body language:

1.) Open Body Posture

The hands and feet of the character are exposed to this posture, while the body leads to the intended object. This posture illustrates that the character reacts positively to the received.

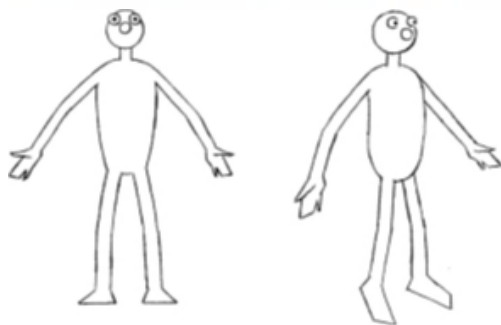


Fig 1. Open Body Posture
(Character Animation Fundamentals, 2011)

2.) Closed Body Posture

The hands bend inward (closed), when in sitting position, the legs position are intersecting with each other. The direction of the body will be far from the target object and the head of the character slightly lowered. The meaning of this posture is a negative (reject) reacting of character to the things received.

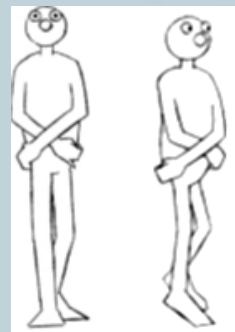


Fig 2. Closed Body Posture
(Character Animation Fundamentals, 2011)

3.) Forwards Body Posture

The position of the character body is more forward, with a fist or finger pointing toward an object. This posture can mean that the character shows the feeling of interest and desire to be involved, so as to accept or reject the given.

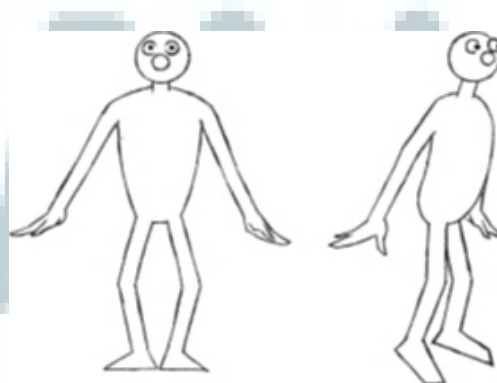


Fig 3. Forwards Body Posture
(Character Animation Fundamentals, 2011)

4.) Backwards Body Posture

With the position of the body leaning back and the character to see or pay attention to other things, this posture indicates that the character indirectly ignore the given.

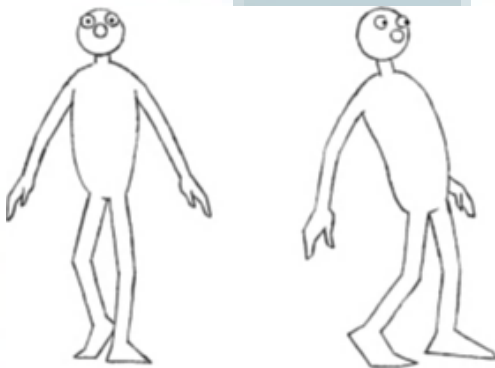


Fig 4. Backwards Body Posture
(Character Animation Fundamentals, 2011)

The combinations of four basic postures above with each other will create four basic modes: Responsive; Reflective; Combative; and Fugitive.

1.) Responsive

The combination of open body posture and forwards body posture creates movements that can portray feelings of pleasure, attraction, attachment, curiosity, love, desire for something, passion, and likes.

2.) Reflective

Shows a confused feeling formed from combination of open body posture and backwards body posture. In a pensive atmosphere, body posture will lean back and open. This can illustrate the feeling that the character is considering something, thinking, and judging something.

3.) Fugitive

At the time of dodging, the character will show the body posture away and closed. With this posture, the character can describe feelings of rejection, boredom, sadness or chaos, in denial, not confident, lying, wanting to go, or rejection an idea.

4.) Combative

In an aggressive feeling, the body posture will protrude come forward but closed. This posture can show feelings of anger, challenge, show the idea firmly, or want to start a dispute.

Facial Expression

At the simplest level, there are eight basic emotions: happy; sad; surprised; afraid; angry; disgust; interested; and pain. From the eight basic human emotions that mentioned above, we can form a number of combinations of other expressions (Roberts, 2011).

Emotions are almost specifically focused on the face and especially around the eyes (Osipa, 2010). On the eyebrows



Fig 5. Low Awareness and High Awareness
(Stop Staring, 2010)

part there are two movements that can be seen, upward/downward and shrinking.

While the upper eyelids usually describes the level of one's vigilance. The farther eyelids from the iris, the more vigilant that person is, but when the eyelids get closer to the iris, the level of consciousness is getting lost. However, in ordinary circumstances the upper eyelids are always in the iris of the eye.

About Rats

Rat has a long, flexible, cylindrical body that allows it to pass through the narrow chambers (Hanson, 2007).



Fig 6. Rat’s Tail for Balancing
(Source: <http://www.ratbehavior.org/RatTails.htm>)

Rats have several functions on its tail. The functions are as a regulator of body temperature and balancing the body. To balance body, the rat’s tail will adjust its body and gravity so that it doesn’t fall (Hanson, 2003). Rats also have nose that is very sensitive to smell. Usually rats will bring his nose closer to the ground, so they can captured that the scent more clearly (Hanson, 2003).

General Description

The “Panawa” movie tells about the life of Mbah Krempeng, a witch-shaman who likes to eat rats. He lives in a secluded hut with his stupid and fat subordinate named Bakso Buntel. Day by day rats in their huts are getting more agile and hard to catch. Mbah Krempeng who can’t withstand his hunger anymore, makes a potion and turns his subordinate into a mouse to lure the other rat out.

In this film, the author plays a role in making animated movements of Bakso when being a mouse, especially in the



Fig 6. Rat’s Tail for Balancing
(Source: <http://www.ratbehavior.org/RatTails.htm>)

16th to 20th shot. The research begins by doing literature studies related to the theories that required, then conducted reference observations from animated characters, real rats videos and rats movements in animation. The study continued with the making of reference video according to the storyboard, which then became the reference design of the animation movement. After that, the authors analyze the movements that have been designed with theories and observation results.

Character Reference

To design the rat Bakso movement, observations on other animated character are made for a movement reference based on characteristic. Think is a boy



Fig 8. Thunk
(The Croods, 2013)

in an ancient family in the animated film *The Croods* (2013). This character has some traits that are same as the traits of Bakso Buntel, which is obedient, ignorant and innocent. He is also very coward but still obey the orders that are given to him, as well as Bakso who always obey Mbah Krempeng’s orders even though he did it so forcefully.

Frightened Walk

Some other reference are collected to guide author in designing rat Bakso movement when he is walking in fright.

By observing at “Larva’s” rat walking movement, authors realize that the rat’s tail will moves following the movement of the foot. The butt will follow the direction of the foot to the left and right

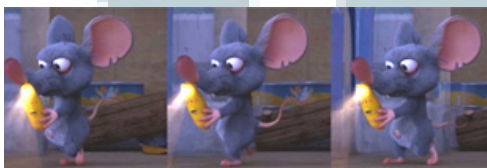


Fig 9. Larva’s Rat Walking Movement (Larva, 2014)

so that the tail on the butt will also move and swing.

Author also observed Remy from *Ratatouille* film in fear. Remy who is hiding in the hat, can’t do anything to wreck his fears. Fear makes him uneasy, making

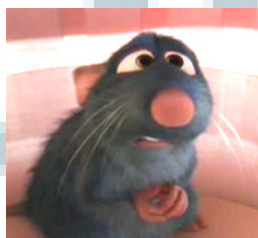


Fig 10. Remy Ratatouille Frightened Expression (Ratatouille, 2007)

him unconsciously clench his hands and play them by rubbing against each other. Although the eyes see objects that makes him frightened, the body remains closed and bends back because of rejection. The ears and corners of the mouth descend downward to reveal anxiety. The eyelids go up so it looks like they’re expecting something.

Bakso that have a cowardly traits search a strange and dark place to look for the rat in hiding. This condition causes the feeling of fear in him. Fear is a negative reaction (rejection) to something so that the basic motion of human body language.

In this movement, the body is bent forward, the shoulder is lowered with hands clasped in front of the chest. The head of the rat Bakso is raised so that it

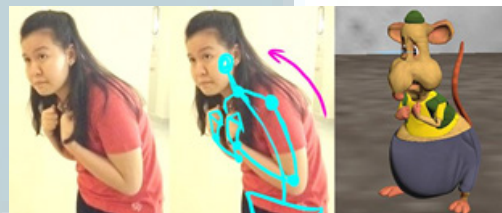


Fig 11. Human Body Language

looks alert to the surrounding environment. Frightened facial expressions are made with eyebrows and forehead wrinkling upwards, cheek muscles going up, mouth pouting down, and nose wrinkling upward.

From that pose, the process are continued to designing the walking movement. The walking movement is made based on the walk cycle scheme of Car-



Fig 12. Bakso Frightened Walk

toon Animation book by Blair (1994). The walk cycle scheme combined with the fear pose will produce a scared walking movement. The speed of the scared walking are made slower than the usual walks, reinforcing the expression. The head and the glance of the eye are made to look to the left and right to illustrates the expression of alertness and insecurity of the characters against the strange places it passes while searching for the rat in hiding.

The expression of rat Bakso face are made based on the reference video that has been made and also on the expression of Remy on Rata-

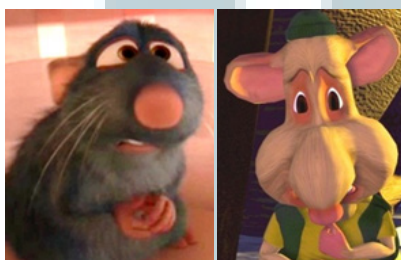


Fig 13. Frightened Expression

touille film. It can be seen that the ears part are designed downward to emphasize the expression of fear of rat Bakso. The upper eyelid is made up away from the iris to indicates an increased alertness (Osipa, 2010). The author interprets that fear feeling in a strange and dark place will cause an uneasy feeling. It is illustrated by a slow walking movement, an erratic glance of the eye in different directions and a wary movement around it. Fear can be seen from the posture of the body that closes with the hands in front of the chest and the clenched hands.

Surprised

From the video, it is known that when the rat was shocked, there was a sudden pounding. The pounding

made the rat's hands pushed down and the body becomes tense and the viewing direction is straight looking at the source of the surprising thing. The body will unconsciously

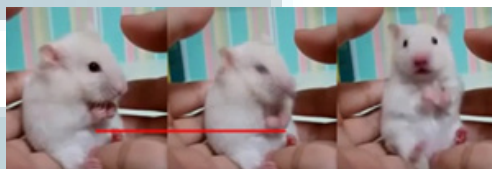


Fig 14. Shocked Rat
(<https://www.youtube.com/watch?v=gf-5WTahoBSI>)

become tense and stiff. The mouth of the rat was wide open. Tension can also be seen in his tense up ears, which makes him look more alert. There is a movement of rejection that we can see from the body of the rat which is a little back to back.

The video showed a shocked rat when it was hit by low-voltage electricity. Low-voltage electricity makes the rat jumped in shock. Feeling surprised is make the rat body close and retreat far back. The direction of the head and eyes of the rat is on the source of the surprising object. Shocked feeling make the rat jumped from the back of the leg so that the rat moved away from the source and its tail rose upward. That feeling also makes the tension on his body so that



Fig 15. Jumping Rat

the rat becomes stiff and pause.

The following is a look of Remy the rat who was shocked when his food turned into Gusteau's head. There is a change of expression when shocked.

The eyes of Remy suddenly widened, he glared at the sight of the object that surprised him. Surprised make him wary of the object so that his eyes remain enlarged and looked straight at the object. The body immediately backs away from the object and the ears are startled so that it rises upward.

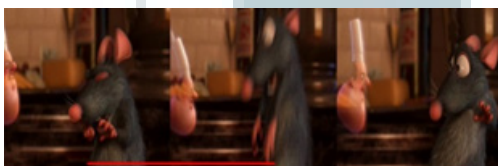


Fig 16. Shocked Remy
(Ratatouille, 2007)

Remy who is shocked do a rejection and closed herself. He jolted up while push his hand down and his body jumped back while shouting in shock. It happened because he avoided the object that surprised him. Closing himself is shown in the position of the arm, his hands forward to alert and his ears rises upward.

When walking through a strange place, suddenly Bakso was surprised to hear the sound from behind him. Spontaneously he turned and jumped falling back. The reaction experienced by Bakso is a fugitive reaction that is a combination of two basic motions of human body language between backwards and closed body posture (Roberts, 2011). Bakso's hands in this motion is moving along with his rotating body. His hand moved

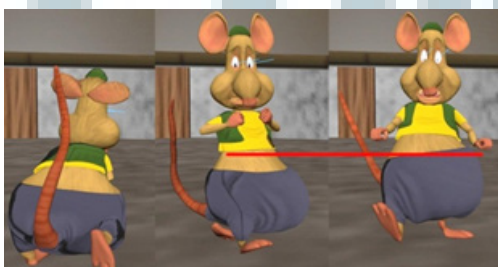


Fig 17. Shocked Bakso

as if pushing something away so that the body was pushed back with a stiff neck and a stiff head. Bakso fell due to loss of balance and only rested on one leg only.

When the character fells and hasn't hit the ground, the hands are made to float in the air. The left foot that had become a pedestal is made rise upward due to loss of balance and the right foot down towards the ground. Bakso's belly is pulled up and the tail down to balance the body. When touching the ground, position of the hand automatically quickly backward to hold the fallen body so that the head does not hit the ground and can immediately balance the body back. The tail tensed up again, showing the shocked expression that he was still experiencing. Foot that loss balance will be the first touch the ground compared to the foot that became the pedestal.



Fig 18. Bakso Falling Down

Surprised seen clearly with wide-eyed eyes and eyebrows going up. Eyes widen and pupils shrinking are to reveal a high level of alertness (Osipa, 2010). The direction of the eyes are looking for a source of shock. The eyebrows that rise up cause wrinkles on the forehead that looks doubled. Reflect from shock will make us take a deep breath suddenly, so that the mouth becomes wide open.

Sniffing for Food

In the midst of a search for the rats in hiding, Bakso Buntel sniffs and smells the food.

After being shocked, Bakso who was regulating his breath suddenly smell some food. This is shown by Bakso searching for the source of the smell by the movement of his head and nose that rose up. Bakso who at first tense up close his eyes so that he can focused on the smell to find out what smells he smelled. While searching, he sniffed his nose several times up and down. Movements in the smelling scene



Fig 19. Bakso Shocked Expression

are made by wrinkling the nose and moving the tip, the eyebrows are lowered to the normal position so that it looks more focused and relax, the ears lowered and the mouth is closed. At this moment, the calm Bakso takes a sitting position.

The sniffing rat has movement on its nose. His nose is moved many times up and down very quickly. The rat ducked down because he was looking for information from the smell on the floor. Another thing that moves is his ears. The rat's ears move from the movement of the nose and the head. Occasionally rats will sniff up to get more information.

After being shocked, Bakso who was regulating his breath suddenly smell some food. This is shown by Bakso

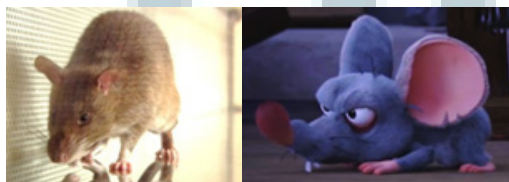


Fig 21. Bakso Smelling

searching for the source of the smell by the movement of his head and nose that rose up. Bakso who at first tense up close his eyes so that he can focused on the smell to find out what smells he smelled. While searching, he sniffed his nose several times up and down. Movements in the smelling scene are made by wrinkling the nose and moving the tip, the eyebrows are lowered to the normal po-

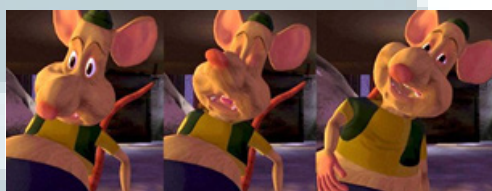


Fig 21. Bakso Smelling

sition so that it looks more focused and relax, the ears lowered and the mouth is closed. At this moment, the calm Bakso takes a sitting position.

After knowing that the smell is a smell of delicious food, then the facial expression will instantly become joy and happy. A happy expression is shown from the big smile on the face and the eyebrows rising upward. When smiling widely, the cheek muscles will rise up so that the eyes look a little smaller because the lower eyelid also rise up. The open mouth makes face becomes more elongated. Eyebrows that rise up look happy because it curved and did not shrink, and also lifted the folds on the forehead

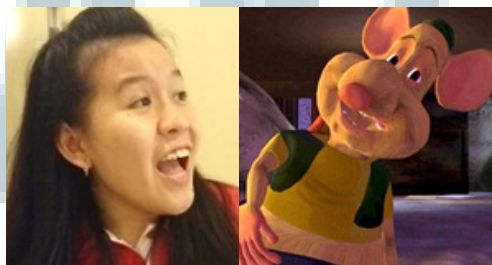


Fig 22. Happy Expression

(Roberts, 2011).

Bakso's nose rise up because of sniffing and start looking for where the source of the smell is. The happy reaction is also shown from the gestures of the body that starting to lean forward so that it looks enthusiastic. The reaction experienced by Bakso is called a Responsive reaction. (Roberts, 2011) When the character is happy, the body will lean forward and the head looks up. The legs and hands will be wide open.

When Bakso begin to search the scents he smelled. He uses his rat's nose to figure out the direction of the object. The rat's nose has an incredibly sensitive sense of smell. The sense of smell and



Fig 23. Responsive Reaction

hearing of rats is more sensitive than humans (Hanson, 2003). Bakso happily began to move to the food he was looking for. His eyes remained shut while searching for the existence of the object. His nose moved up and down toward the source of the smell he was looking for.

To know the exact direction of the food, Bakso sniff out the smell and start walking towards the smell of food. The head is moving up and down and so is his nose, it is designed so that the character shown the reaction of sniffing something he really wants so much. The body of character is leaned deeper

toward the source of the smell and the hand begins to crawl.

To make sure the smell the character smells, body will concentrate to know it. Focus is seen on the face through closing eyes and shriveled eyebrows. Eyes are closed to make the sense of smell from nose is increased so the character could search for it more easily.

Faces suddenly shriveled because it began to smell the food. Eyes narrowed with eyebrows down and shriveled. It shows an expression that begin to focus on the smell that he smelled. The mouth that impersonate nose begins to move upward which marked to start the search for the smell that appears. The more character focused on searching, the eyebrows will look more shrink down. Sniffing will move the head up and down as it seeks to find out the source of the smell by taking a deep breath frequently to know its position more clearly.

Finding Food

In this scene, the author demonstrate Bakso finds out that the food he search for is anchovies. The author uses reference videos that have been made as reference to the basic movements that are designed. Designing in this shot begins by arranging sniff pose on Bakso. This sniff position is obtained based on observations of real rat videos and animated film "Larva".

When sniffing, the position of the body is close to the ground, by bending the body closer to the ground, rat can

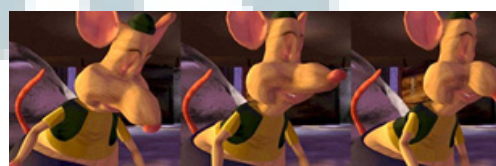


Fig 24. Bakso Searching for Food

know better the source of the smell. Usually rat will stick their noses close to the ground, it is done so that the information can be captured more clearly (Hanson, 2003).

Bakso crawled toward the source of the scent and his head was attached to the ground. His head moves left and right to know the position of the object. His nose was more raised than normal because he was sniffing. He crawled with a smile and closed his eyes. Closed eyes shows himself concentrating in searching. Bakso’s happy expression is portrayed through a smile on his face with lips rising upward and curved eyebrows. Focus expression is made by bringing his eyebrows closer each other.

The happy reaction is a responsive reaction, when the character is happy, the body will lean forward and the head looks up. Bakso body comes forward and opens, the head faces the object, his face delighted with his rising eyebrows and smile wide open (Roberts, 2011).

To find the direction to go, the head moves left and right, then to increase the concentration on the sense of smell, closing the eyes will make it more effective. That’s because, Bakso who are basically human is more and accustomed to using the senses of his sight. Therefore, when



Fig 25. Crawling Pose

the sense of vision is covered, the sense of smell becomes sharper.

When he is close to the object that be-

ing searched, the body bends in downward and then stands upright in tandem with the eyes open. As the body stands upright, the nose is raising more before it finally returning to its normal position



Fig 26. Bakso Sniffing

which is indicating Bakso has finished using the rat nose he has. The reaction when opening the eyes is happy because the results he gets is in accordance with his expectations.

Conclusion

In an animation the most important thing is how a story can tell emotions to the audience, one of the ways is through movement. Good movement is a movement that looks real and moves according to reason. To get a good movement, there are several steps that must be undertaken.

In designing the movement, it takes deepening of the characters. The depth of characters requires an understanding of the background, the physical condition, the nature and habits, the situation experienced, and the psychology and sociology of the character. Then from the deepening of the character, can be determined theory and reference that needed so that the animator can know how the character is moving. The depth of the character is also useful in making refer-

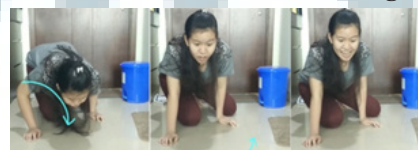


Fig 27. Finding Food Video Reference

ence video that is used as the basic reference of animation design in accordance with the storyboard.

To design the motion, knowledge of body language and expression and also principles of animation are required. It is then applied to the characters in accordance with the anatomy they have. Animators need to know the anatomy and how to move the limbs of the designed characters.

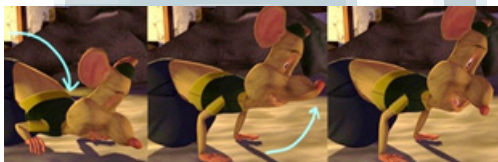


Fig 28. Bakso Finding Food

To design the movement of an animal characters that have human characteristics, animal characteristics and body language of humans should be combined. Body language and animal characteristics need to be combined because body language could show the impression and personality of humans as well as animal characteristics are used to strengthen the movements made, also give a limitation in designing the movement of the characters. A deep knowledge of the characteristics of the animals is important because it also give the designed animal a more deeply impression.

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