

The Ritualization of the 'Bank System' in Japanese TV Animation with Hero or Heroine

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Abstract

Japanese TV animation series, usually named as anime, has been so successful in commercial and influential in cultural in an international level. The 'super robot' and the 'magic girl' are the two major heroic themes. The 'heroic' here refers that the protagonist in the story regularly carries on fighting with villains to save or protect the people in the world. The so-called 'bank system' to re-use the animation footage is one of the techniques to significantly reduce the cost in the production of Japan TV Animation. The clips in the bank system are usually used for certain situations such as the appearing, the transforming, and the final attacking of the heroes. Since the quality of these clips, the function to transit in the narrative, as well as the expectation of viewers 'bank system' is possibly seen as a type of ritual in Japan TV Animation. We proposed to name it as 'ritualized bank system.'

In this study, we discuss the birth and the development of 'bank system' in Japanese animation history, as well as the uniqueness in the theme and narrative in heroic Japanese TV animations. The 'ritualized bank system' is then further explored and categorized in terms of narrative functions in several two major genres that heavily utilized this technique in Japanese TV animation with hero or heroine.

Keywords: Animation, TV series animation, Japanese animation, anime, bank system, limited animation

The popularization of Japanese TV series anime and the categories with hero or heroine

Anime, or Japanese animation, is "one of the most explosive forms of visual culture to emerge at the crossroads of trans-national cultural production in the last twenty-five years" (Brown 2006, p. 114). The popularity of anime is increasing in Western society for its distinctive aspects ranging from narrative to visual styles (Napier 2005, p. 10).

Anime is so different from American style animation in terms of visual styles and the way of story telling although both of them have achieved commercial success. Although originated from American animation in 1950s, anime is unique in its historical development of industry and the content it derived from. Started in

TV era, anime was commonly showed on TV. The economic issue is a significant concern. The techniques used in TV series are different from those used in American cartoons produced by Hanna-Barbra. The differences will be covered latter. The content of the anime is basically obtained from the comic books, or Manga, which are already popular.

Differed in the continuity of the stories, there are two types of TV series anime. One has major story line from the first episode to the final episode. In another word, the entire episodes tell a single complete story. We name this type as 'continuous TV series' for convenience. The advantage of this type is that audiences would look forward to the next episode in order to follow the story. The disadvantage is that audiences are not able to understand if they watch on the episode in the middle of series. The other type is that every episode remains its relative independent. The narrative of whole series is loose. We name it 'autonomous TV series'. In this type of anime, the behaviors of the major characters in the series are consistent, and the story structure in each episode is somewhat repetitive. (Wang, Gang 王鋼, Zhang, Bo 張波, 2010, page 68-69). The advantage of this type of series is that each episode can be watched individually. However, on the contrary, audience do not necessarily addict to the story. Anyway, the 'bank system' discussed in this article are applied in both types.



Image 1 - A still image in Astro Boy

The TV anime series with hero and heroine are popular. The term 'hero' or 'heroine' here is not just

referred to protagonists in the stories, but is further indicated their characteristics as:

The protagonist has a strong sense of justice, defeat evil organizations, and save the world. (translated from original Chinese quotation, Wang, Shou-Chih 王受之, 2009, page 88)

The two most typical genres of anime with hero or heroine are science fiction and fantasy. Specifically speaking, the themes of the two genres are 'super robot' (スーパーロボット) and 'magic girl' (魔女っ子) respectively (Chen, Chun-Wei 陳仲偉, 2004; Ping, Wen 冯文 and Xun, Li-Jun 孙立军, 2007). Within these two major categories, various contents and characters have been developing and evolving until now. For example, in the series of 'super robot' science fiction type, main characters were set to human size such as *Astro Boy* (鉄腕アトム, 1963-1966), or drivable giant robot, and 'living' giant robot. The later two types inspired recent Hollywood feature films such as *Pacific Rim* (2013) and *Transformers* (2007), and became blockbuster film series.

Furthermore, the 'super robot' and 'magic girl' are the two main types of anime to attract boy and girl audiences respectively, asserted by the dedicated anime research group in Taiwan Sha Hu Lu ally (傻呼嚕同盟, 2006). These two popular categories also keep Japanese animation companies to develop very different narrative and visual styles other than western commercial works. Thus they stay out of the powerful influences from American cartoon (Peng, Ling 彭玲, 2009). The unique while classic anime style was gradually established through the last decades.

Interestingly, the fans of these two types of anime created new terms to describe the characteristics of them: '燃' and '萌'. They are both pronounced as 'Moe' (もえ). The two terms have been defined as following (Liu, Tzu-Chien 劉子倩, Miki, Nishizawa 西澤三紀 and Han, Po-Lung 韓伯龍, 2007). The first term '燃' indicates the enthusiastic and active behavior of characters, and the energy on fighting. It is especially used on the 'cool' characters and robots on special interest groups on anime. The second term '萌' is usually used to describe the cuteness of female characters. It has been used in a wider range than the first term. Originally it is only for anime characters, but has been extended to a paranoid affection on certain costume or apparel such as maid dressing and cat-ear hairband, etc.

These two terms correspond to the two major types of anime, 'super robot' and 'magic girl' as described earlier. With the progress in the industry of anime, both types have been developed into certain variations or sub-types in the following discussion.

'Super robot' genre and its variations

According to Zhou, Lan-Pian 周兰平 (2007), the difference between Japanese superhero and American superhero is especially on the type of human figure,

although both of them are extremely powerful. The possible reason is the difference of human race. The muscular superhero is not as often seen in anime as in American animations and movies. Instead, there are more often robots produced and controlled by human.



Image 2 - A still image in *Tetsujin 28-go*

The very first three TV series animation in Japan are all in relation to robots. The first one is *Astro Boy*, in which the protagonist is a robot with self-consciousness. The second one is *Tetsujin 28-go* (鉄人 28号, 1963), in which there is a powerful remote controlled giant robot as the hero. The third is *Eight Man* (8 マン, 1963), in which the protagonist is a mechanically reformed human. As Chen, Ying 陈瑛 (2008) stressed, the hero in each episode of a series remains the same. The story usually starts with the appearance of the villain and they are defeated in the end of the story in each episode, although the way and the process they are knocked are various. They are 'autonomous TV series' as defined earlier.



Image 3 - A still image in *Mazinger-Z*

From 1970s, more TV anime series with robotic characters appeared and gained popularity. Drivable giant robot *Mazinger-Z* (マジンガーZ, 1972-1974) started another wave in 1972 and the series was also

exported to other countries including Taiwan. The set off of the robot form the base, the 'controlling helicopter' lands on the top of the robot are repeated in the whole series. Later in 1979, *Mobile Suit Gundam* (機動戦士ガンダム, 1979-1980) initiated a revolutionary robotic design with realistic manner. This series has a tremendous and long-term influence until now.

Besides the robots as heroes, the series with human characters as heroes such as *Gatchaman* (科学忍者隊ガッチャマン, 1972-1974) are also popular and exported overseas. This type is possible to be understood as a variation of 'super robot' type since they drive powerful aircraft. In this series, five major characters have individual ability and work as a team to confront evil forces.



Image 4 - A poster of *Gatchaman*

According to the research of Alplus in the book of Sha Hu Lu ally (2006), most of the story line in each episode of anime in this category, no matter with robotic hero or human hero, often progresses as:

1. The appearance of villain(s) or monster(s)
2. The set off of a single protagonist or as a team.
3. The protagonist fails in the first confront.
4. The reset or strengthening of the protagonist or the team
5. The protagonist(s) win in the fighting to make the antagonist(s) flee away with the declaration to come back again.

'Magic girl' genre and its variations

Female protagonists are more frequent seen in Japanese animations than in American commercial animated works. Hayao Miyazaki's works produced in Studio Ghibli are possibly the most well-known cases. For TV series anime, there is a unique type in which heroines defeat evils as male characters do in the other type described above.

However, the superpower between male and female protagonist is rather different. Levi (1998) analyzed this type of Japanese heroine and concluded that the heroine's superpower is usually psychic. The psychic powers such as prophesy and exorcism is possibly traced to the traditional domestic religion in Japan: Shinto. Arguably, Shinto originated from a more

primitive belief which is Shaman or something comparable. The superpower to communicate with spiritual world in ancient belief was then absorbed into the creation of female protagonist in anime.



Image 5 - A still image in *Magic Lisa*

The first 'magic girl' type of TV series anime is *Magic Lisa* (魔法使いサリー, 1966-1967) broadcasted from 1966. Yet the female protagonist in this series is still more similar to western which. In 1973, the characters in debuted *Cutie Honey* (キューティーハニー, 1973-1974) was designed closer to the 'magic girl' now we familiar with. The protagonist in this series is a humanoid who has superior athletic ability and has special equipment inside to be able to transform material surrounding her. This equipment is majorly used to transform her costume for fighting. Although the series was set to attract young boy audience for there are fighting scenes, it also attracted young girl because the protagonist's superpower is to freely change costume.



Image 6 - A poster of *Sailormoon*

Until 1992, the series *Sailormoon* (美少女戦士セーラームーン, 1992-1997) gained extremely wide popularity and exported overseas. In the series, five main characters wearing sailor costume, which is an often seen middle to high school student uniform, confront and fight with evils.

The formulated storyline in the 'magic girl' type of anime is similar to the 'super robot' genre. The difference is that the setting and visual style in the

'magic girl' genre is milder and more graceful. Furthermore, the slogan the girl characters utter before they release their special power is usually in relation to love instead of saving the world.

In recent years, the two terms '燃' and '萌' discussed earlier influence each other. The elements in these two types of anime are mixed and interweaved to create more diverse works. Anyway, most of the TV series animations in these two types tend to be more repetitive and autonomous, so the 'bank system' discussed in this paper is commonly applied in them. The origination of it is the techniques applied in the production of so-called limited animation in USA. UPA (United Production of America) is probably the first animation studio to apply the techniques into commercial production.

A brief introduction of UPA and limited animation

From late 1940s, UPA initiated a new aesthetic direction that was different from the dominant Disney style in animation production. Influenced by the early 20th century modern designs in illustrations and architectures, UPA's artists developed visual styles by integrating the characteristics of abstraction and simplicity in modern design into their productions of animated shorts, to compete with Disney's animations (Klein 1993; Moritz 1998). Different from Disney's detailed and realistic-oriented approach, images in UPA's animation are usually simplified and graphically stylised. The use of stylised visual elements in UPA was not only for artistic purposes, but also to save costs. With their relatively small budget, cost savings were imperative if they were to compete with other animation studios (Ford 1980).



Image 7 - A still image in *Gerald McBoing Boing*

The visual styles in UPA's animations are unique and visual elements in the films are usually reduced to the minimal. Bill Hertz, the animation's designer, recalled the experience of working with the director, Robert (Bobe) Cannon on the animation *Gerald McBoing Boing* (1950). He says:

We had a concept that the style really came out of the story, or out of the material. In

GERALD MACBOING BOING, we were trying for absolute simplicity – how few lines could be in this picture? How elemental could it get? (Maltin 1987, p. 331)

The design of the characters and background is the contribution of reduction and simplicity in *Gerald McBoing Boing*.

Characters are portrayed with flat shapes and outlines without shading to create the illusion of volume. Environmental backgrounds are extremely simplified by removing lines that display perspective such as horizon or skyline. Spaces are suggested by objects such as a lamp, a sofa or a door within the frame of background. As Hertz described, "There are no lines defining the difference between the ceiling and a wall. A picture is on a space, and then there's a rug. So 'rug' means there's a floor and 'picture' means there's a wall" (Maltin 1987, p. 331).

UPA's aesthetic concept and production methods had a great influence on subsequent animation productions. The influence was in two different directions. On the one hand, their artistic innovation encouraged further diversification of visual styles in animation productions (Stephenson 1967), and this impacted not only on animation studios in USA but also on those in Europe such as Zagreb School in Yugoslavia (Holloway 1972).

On the other hand, their efficient production methods were applied and modified by other animation studios to produce animations with low budgets to accommodate the increasing demand for TV animations from mid-1960s (Furniss 1998). It has to be noted that the short films produced by UPA with limited animation techniques were screened on theatres. When the television became a widespread media, the techniques to reduce the cost became necessary for the studios that produced TV animations series such as Hanna-Barbara and Filmation.

The limited animations were considered to be low-budget, poor quality and aimed only at children in a term 'Saturday-morning Cartoon' (Beck 2004). This production method also influenced the early development of Japanese TV animation companies such as Mushi Production (虫プロダクション) founded by Osamu Tezuka for cost-saving (Beck 2004, p. 238).

The three major methods that Tezuka modified from UPA's early techniques on the production of their short films to produce TV animations series are:

1. 'Shot on three' (三コマ撮り): It means that a drawing is shot three times instead of once to express the motion in the fewest frames. Therefore, the regular twenty four frames a second are reduced to eight frames.
2. 'Camera movement' (カメラワーク): A large size drawing is used and the camera is moved around for shooting to significantly reduce the number of frame.
3. 'Part animation' (部分アニメ): The advantage of celluloid layer is used to animate part of characters.

For example, when a character is talking, only the mouth is animated.

Osamu Tezuka and the birth of 'bank system'

As discussed previously, *Astro Boy* is the first Japanese TV series animation broadcasted once every week from January 1st, 1963. Osamu Tezuka has a dominant influence on the early Japanese Manga (picture book) and is even honorific titled as 'the God of Manga'. He established Mushi Production Co. and learned the techniques from American limited animation to produce their own productions. *Astro Boy* is the first TV series animation that adapted from his own Manga.

In Japan, TV series anime is the major medium of animation productions. However, before *Astro Boy*, feature length animated films produced by Toei Animation Co. once every one or two years were the main animation productions. Besides the feature animation, there were only five minutes short animations broadcasted on TV in special occasions such as Children's Day. After the debut of *Astro Boy*, it soon became very popular. The TV program rating of *Astro Boy* reaches as high as 30%. It was even bought by NBC (National Broadcasting Company) for ten thousand each episode to broadcast on TV in USA (Schilling 1997). Moreover, with the expanding and cooperation with other industries such as toys and fashions, the selling of peripheral commodity of the animation and portrait authorization of the animation characters were also the profit of the production company. Gradually, the animation industry was merged into a bigger system of business that usually termed 'ACG', which consist of anime (A), comics (C) and game (G) as the center (Wang 2009). It has formed a huge commercial system in Japan.

According to Yu, Kai-Lin (游凱麟 2008), an episode of twenty-two minutes long Japanese animation usually contains four thousand drawings. The number of the drawings in an episode of animation with the same length in USA is usually twelve thousand. Thus the time and manpower to produce animations in Japan is roughly only one third of those in USA. To achieve this, the three methods described earlier were heavily applied.

Similar to the 'Saturday-morning Cartoon' being termed for the limited animations in USA, the films produced with 'bank system' techniques in first few years were bantered with a term 'electronic paper-story Show (電芝居)' since their poor quality (Tseng 曾俊璋 2014). The 'paper-story show (紙芝居)' was a type of performance on streets to tell stories through a sequence of static images during that period of time. The early TV animations produced by Tezuka had a certain portion where the images were also static, so they were ironically termed. Other than the three methods, 'bank system' was another method being developed during that time.

'Bank system' (バンクシステム), also named as 'bank scene' (バンクシーン) is a term created by

Japanese to describe the techniques to re-use the footages that are already existed on new sequences of a film. In live-action TV productions, a similar term called 'duplication of negative film' (デュプリケーション・ネガティブフィルム), abbreviated as DN, are applied for the programs with special effects.

In the beginning, 'bank system' was possibly just a thought to preserve some part of the clips that had better quality for the use later (Sha Hu Lu Ally 傻呼嚕同盟, 2006, p. 239). Gradually, a systematical method was developed to plan in advance to apply on the productions.

It has to be differentiated a similar method called 'cycling', which is also applied in cartoon production. It is possibly confused with 'bank system'. A 'cycling' clip consists of a set of frames that is played in a loop (Ozawa 2006, p. 89 and Yu 2008, p.324, 330). In a 'cycling' clip, the last frame has to be connected the first frame of the clip, so it consists at least three frames. 'Cycling' is frequently used for natural phenomenon and repeated actions. (Wang, Jian 王健 2008). The examples for natural phenomenon are raining, snowing, flame, water, smoke, lightening, etc. The repeated actions include running animals, flying birds, rolling wheels, etc. 'Cycling' could also be a part of 'bank system'. However, the clips in 'bank system' are not necessary 'cycling'.

There are different ways to categorize the types in 'bank system'. According to Chen, Shih-Chang (Tseng 2014), who had worked in Wang Film Productions Co., one of the largest production house for animations outsourced from USA and Japan during in 1990s, there are basically two types of clips in 'bank system' for the range of usage. One is called 'stock', which is used for a whole season of broadcasting. For example, the walking cycle in the direction parallel to the screen and the transforming to a superhero type of a main character are often seen 'stock'. The other type is called 'same as', abbreviated as S/A, used for only current episode for more specific case. For example, the actions or performance for characters who only appear in one episode.

According to another experienced animator, Tu, Kuo-Hsung (Tseng 2014), there are four types of 'bank system' clips based on the different categories of usage. They are used for backgrounds, characters, inversed sequences, and completed clips for re-use. The image sequences in the first three categories are used only in a layer such foreground or background. In particular, some of the visual conventions in anime frequently appear so they are often stored in 'bank system' for re-use. For example, the sweat drops appeared on a character's forehead indicates the embarrassment. The visual conventions in anime are further discussed later in this paper. The inversed sequences are those in the first two categories of the movements or actions being played backward. For example, the cycling movement for the rolling wheels as described earlier. The completed clips for re-use referred to the already finished clips that repeatedly

appear in many episodes. These sequences are often created in a finer quality than regular clips because they are used over and over. The most frequent seen completed clips are the transformation of the main characters or their special fighting skills, and are further discussed later.

No matter which type of the clips in 'bank system', it has to be planned in advance in the pre-production stage. For example, a clip can be used in scene five, scene thirteen..., and scene one hundred and thirty four. They are placed in a list and stored when it is created. For a low budget production, this is truly an efficient method.

Convention, reduction and ritualization

John Fiske (2002) asserted a concept of redundancy in mass communication:

The more popular and widely accessible a work of art is, the more it will contain redundancies in form and content. Traditional folk-song or a television series provide obvious examples. (Fiske 2002, page 13)

Redundancy refers the messages with conventional patterns that are somehow predictable with determined forms and contents. In this point of view, the clips in 'bank system' can be seen as a highly redundant for they are repeated and predicable.

Conventions are the major sources of redundancy for audience to easily absorb and decode. New messages or signals gradually become conventions if they are popular enough to be read or view over and over. These conventions thus form a meaningful system with codes that shared in a culture or sub-culture.

There have been many visual conventions established during the history of anime. Visual conventions are "not just limited to obvious cultural details but are unique stylistic ways of communicating and expressing feelings and ideas" (Poitras 2001, p. 59). Many conventions originally developed by artists for manga (Japanese comic book) were applied to anime. The reason is probably that many anime shows are adapted from popular manga. The most obvious anime convention regarding character design is the large eyes.

To reduce the cost of budget, some visual conventions in anime are usually stored in 'bank system' to use over and over. For example, the use of special objects such as flowers and sparkles to replace the characters' backgrounds is done to express the characters' emotions, especially the awakening of a love interest (Poitras 2001, pp. 62-3). These backgrounds that consist of special objects in 'bank system' can also change drastically to demonstrate the sudden emotional change of a character for storytelling purposes. These backgrounds can be used with different characters when they have the same emotions. Another visual convention of backgrounds in 'bank system' is using streaks in the same direction as the background to show the speed of a character.

Streaks can also be drawn on the opposite side of the character's moving direction to show the speed. In live-action footage, motion blur is a phenomenon where images of objects appear blurred when they are moving fast during the recording by a camera (Kerlow 2003, p. 257). Blur effects for fast-moving objects are added as a touch to enhance the realism in many 3D computer animations. In 2D cel and line animation, images are recorded statically frame-by-frame under the camera so blur effects of fast-moving objects do not appear. However, the speed is expressed though the lines on the opposite direction of the fast-moving object. This technique is called 'dry brushes' (Herbert 2004; Whitaker & Halas 1981, pp. 110-1).

Other than visual conventions, the existence of completed clips in the 'bank system' discussed earlier is possibly seen as narrative conventions since they are also repetitive and predictable. As discussed earlier, the completed clips for the set off of the main characters, the transformations of characters, and the special fighting skills are regularly applied as a part of films for the storytelling in many episodes of a same TV series anime.

These narrative conventions bridge different parts of a story ion an episode. The most typical one among them is the transformations of characters. Thus a more detailed discussion is focused on the transformations of characters. According to Antonia Levi (1998), main characters in the animations within the two popular genres with hero or heroine are often designed as average persons in real lives, and sometimes even seems to be uncoordinated with the hero scenes. For example, in *Sailormoon*, the protagonist, Tsukino Usagi, is an inconspicuous girl who is below average in schoolwork, but after the transformation, she is a heroine to save the world. Teenage audiences empathize and even gain confidence to see that someone like Usagi is able to become a heroine. However, to bridge the huge gap between the protagonist in her real life and her transformed personality, the completed transforming clip in the 'bank system' is necessary. These clips usually take ten to thirty seconds.

In Fiske's (2002) terms, when these clips first appear in an episode, they are entropic, but not redundant. After being viewed over and over, they are conventionalized. Audiences under the influence of this visual and narrative culture tend to expect to see the conventions appear regularly. These conventions thus have symbolic meanings and narrative functions.

I suggest that these redundant narrative conventions are also to be seen as rituals to cross the narrative boundaries. The concept of narrative boundaries is traced back the notion of hero's journey proposed by Joseph Campbell (1968). In the narrative structure of hero's journey, 'cross the boundary' or 'cross the threshold' refers to a hero sets off an adventure from an ordinary to a special world. According to John Fiske (2002), structural anthropologists argue that in order to transit through

the boundaries between two categories, boundary rituals are designed to ease the process. Furthermore, the bigger the difference between two boundaries to across, the more elaborate and important the ritual needs to be. For example, the passages between living and not living, the passages between single and married, or the passages between childhood and adulthood are typically with elaborate rituals. The transformation between an average person and a superhero in anime is also a significant boundary to cross over. Therefore, the transformations can be seen as rituals for narrative purpose.

The other completed clips in 'bank system' such as the setoff and special skills for fighting, especially for those final attack to win the fight, are also significant in narrative for the boundaries cross-over. I term it 'ruralized bank system', which is extremely often applied in TV series anime with hero or heroine, no matter they are in 'super robot' genre or 'magic girl' genre. There are two major characteristics for the clips in the "ruralized bank system":

1. It has been applied as shared narrative code for many anime with hero or heroine theme.
2. It is often created in a better quality than the other parts of the animations.
3. It has function to transit through the boundaries between two states in the narrative.

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