Transforming Traditional Paper Cutting into LINE Stickers

Tzu Chiang Chang[✉] and Shu Hui Huang

Graduate School of Creative Industry Design, National Taiwan University of Arts,
Banqiao District, New Taipei City 22058, Taiwan
chang.tc0214@msa.hinet.net, shhuang@textiles.org.tw

Abstract. The development of technology not only has sped up our interpersonal communication, but has also brought about mixed emotions. The reason why LINE mobile communication software (mobile application) is welcomed is because it has all kinds of lively stickers. These stickers convey delicate emotions that are difficult to convey through texts to message recipients, enriching the contexts of interpersonal communications. However, since designers started to design their own images, negative semantic behaviors have also been created. This has led to message recipients feeling psychologically uncomfortable. With regard to this and based on five stickers with negative semantic meanings among personal creations in Taiwan, we specifically carried out our study through three cultural design properties – external, functional, and psychological. We hope that through Value-added designs, the decent model of technological application can be completed. Hopefully, the positive semantic meanings of the word "Shii" (喜) in traditional paper cutting and its extensions including "happiness", "sadness", "anger" and "without joy" can correct the behaviors of these stickers. Furthermore, in doing so, modern elements could be infused into arts, and tech fashion could be manifested.

Keywords: LINE sticker · Negative semantics · Traditional paper cutting · Character "Shii" (喜)

1 Introduction

"Culture" is a valuable asset of mankind. "Innovation", on the other hand, ensures the extension of culture. However, as time passes and changes, when we get to communicate with distant relatives and enjoy the convenience brought by technology, it actually reflects the extent of our lives' richness. LINE mobile communication application (mobile application) software is the product of this era. To achieve the purpose of exchange, users can communicate through transmitting "texts" and "stickers" via the Internet. This has made communications between people simpler and faster. It has also brought negative semantic behaviors. Until 2015, there were more than 17 million registered user accounts, accounting for approximately 70% of Taiwan's population (LINE BLOG 2015). This data shows that using LINE to transmit messages has made interpersonal communication of account users in Taiwan more

rapid and intimate. Moreover, it has deepened the importance of the application of this software in modern life.

However, in the Chinese culture, there is a sticker behavior that conveys "good" semantic meanings, and that is traditional "paper cutting" art. "Shii" is the most commonly used word. It is a kind of art that conveys simple emotions through paper and scissors or knives in the hands of women in rural areas. The content of its images is deeply influenced by Chinese philosophical thinking, forming a unique "semantic" form of culture. Finally, based on people's habits and behaviors, stickers are displayed on windows or objects. It applies cultural aesthetics into interpersonal communication in a specific way. This is consistent with the message transmission approach of LINE's "stickers". However, this mode of transmitting messages through traditional paper-cut stickers will be severely challenged by modern life. With regard to this, we hope that the negative use of words of LINE stickers could be transferred into positive messages through the semantic word of "good" in paper cutting. In addition, we hope that through modern Value-added design models, a new life could be given to our culture.

As time passes, even if people's mentality remains unchanged, the tools, things, and cultures of the world will continue to change. Technology will continue to move forward. Although the principles of design will not change, the method of applying these principles will change according to new human activities, new technologies, and new ways of communication and interaction (Norman 2014). Therefore, we understand that culture must grasp the contexts of era by seeking changes in traditions and seeking breakthroughs in contents. With a broader perspective, paper cutting art will have a bright future.

Lin et al. (2007) believes that, on the cultural level, culture is the evolution of human civilization. It is a product created through joint activities. Generally speaking, culture is defined as the overall activities of human life, including languages, customs, religions, arts, ways of thinking, and living habits. It is a way of living, interpersonal relationship, and value system generated from the application of wisdom in order to mitigate the issue of human race survival and continuation. Culture consists of social activities that are characterized by creativity, inheritability, and comprehensiveness. Design is based on the foundation of the science of "seeking realness", through the art of "seeking aesthetics" as a form of expression to achieve the innovative behavior of "seeking goodness". With regard to this, we need to bring "traditional paper cutting" into this century. At the same time, through the use of semantic word "good" in sticker messages, negative semantic meanings of LINE may be corrected. In addition, it is hoped that through Value-added design models, sticker creations that meet "modern" demands could be designed based on the three specific properties including external-transfer, functional-transit and internal-transform, as shown in Fig. 1.
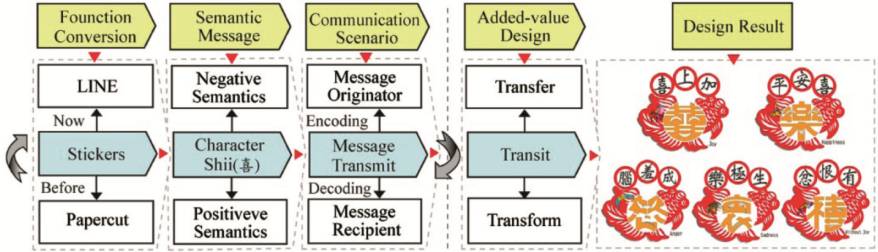
Fig. 1. The procedure of traditional paper cutting design

2   Semantic Communications and Paper-Cut "Shii" (喜)

In terms of interpersonal communication, the core of human communication is the exchange of messages. "Message" refers to the expression of verbal words and non-verbal behaviors. Through message channels, speakers' thoughts, feelings, and attitude inclinations are transmitted. The course of messages is formed by the process of choosing these verbal words and non-verbal behaviors, which is known as "encoding". Then, "decoding" is completed through the process of interpretations by message recipients. Finally, "feedback" is completed through sending responses by message recipients to message originators. Message originators can ensure whether message recipients understand the original message based on this message, which marks the completion of the feedback channel. In this scenario, we complete the message sharing of semantic meanings (Verderber et al. 2004) as shown in Fig. 2.
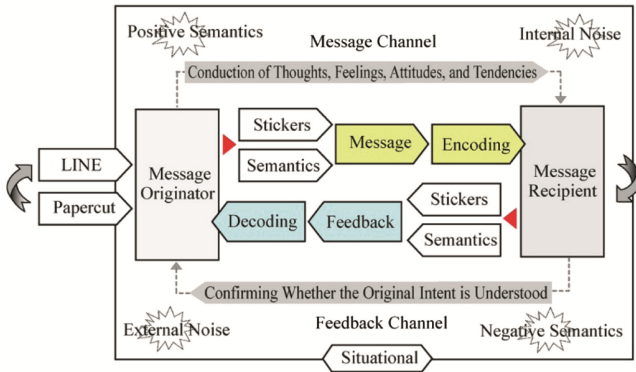

Fig. 2. The scenario for message transmission

Human emotion is a kind of meaningful relationship that exists between personal and meaningful environments. Behaviors and physiology are merely compositions among these. In terms of phenomenon, the environment is full of meanings. From the perspective of observation, emotions are reactions. From the perspective of experience, emotions are meaningful perceptions (Fell 1977). In addition, stimuli are various

representations, conflicts, and situations. They are also things of physiological basis, which is "symbol". On the other hand, symbol is a mixed body of various internal and external conscious and subconscious representations. Therefore, if a situation were perceived through a form of symbol, it would arouse emotions. This shows that it is an integration of external expressions and internal states. It is also a kind of energy transfer. This transfer comes from stimulation of external communications on emotional states (Hillman 1960). However, "language" is an explicit habit, and "thought" is an implicit habit. Therefore, language is "thought". When we cannot communicate fully through language, we often need to use other ways of expression to make our language communication more complete (Watson 1930). "Non-verbal communication" is a method. In fact, we are "the message itself". Its purpose, in fact, is to express the insufficiency in our language message transmission, allowing message recipients to understand more clearly the semantic content that message originators want to express. Moreover, through interactions, they can have a better understanding of each other. Through responding to each other, communication behaviors can build common grounds and acceptance in the process.

2.1   The Regularity of Traditional Paper-Cut Semantic Meaning Compositions

The theme of paper cutting is different from the realism of western arts. It is even more different from freehand painting in traditional Chinese style. Art works are completed through personal intuition, impression, and imagination. In fact, they have certain implied meanings. Through cultural heritage, a kind of collective rules are formed. Tao (2003) believes that the regularity of mascots' formation includes: (1) The method of homophonization: application of the Chinese "homophonic" words. This is the "main" method of application in the theme of paper-cut images. It uses the feature of "similar imagery sounds" to convey the images content materials and theme features. Taking the Chinese character "Shii" (喜) as an example, the word "plum" (梅) flower in the image uses the homophonic sound form "eyebrow" (眉) and the tree "branch" (梢) that birds stand on as a combination that conveys the implication of "radiance with joy" (喜上眉梢). (2) The method of representation: people attach certain connotations to the properties of animals and plants and the forms of object and matter. For instance, there are "numerous seeds" in pomegranates, which represents "loving husband and wife". (3) The method of demonstration: people use familiar matters that are of common sense as a reference and apply them to everyday life. Furthermore, representations of forms and arts are attached to them. For instance, "ancient coins" represent "wealth", and "animals" represent "year after year". Together, they signify "consecutive years of wealth". (4) The method of association: through wonderful, touching legends, people make "association" of things and matters and attach the meanings of images. For instance, the legend of "hopewell" (和合) two individuals have the metaphor of "loving husband and wife". (5) The method of integration: it is a "combined" image derived from "multiple" auspicious factors. It gives images themselves richer connotative meanings. Taking "monkeys" as an example, the combined image of the word "Shii" and "lotus" implies "greetings in the year of monkey", as shown in Fig. 3.
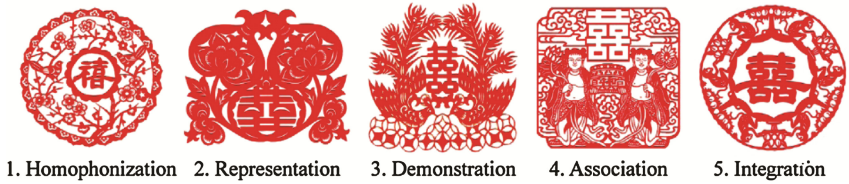
1. Homophonization   2. Representation   3. Demonstration   4. Association   5. Integration

Fig. 3. The generation of the regularity of paper-cut "Shii" (喜)

2.2 Definition of the "Joy" and Its Extended Implications

The word "Shii" (喜) is known as "double joy" (囍). It represents of joyful, cheerful, and happy. When "double joy" is placed side by side, it implies joy on top of joy. Looking from the word itself, "Shii" is a joint ideogram. In Shou Wen, the shape of "one" is similar to a drum placed on a platform, signifying celebration through music performances. When there is "mouth" at the bottom, it conveys the meaning of "laughter" and "happiness" when one hears about happiness. In addition, the word "Shii" is also known as "delight," implying matters of "joy" and "happiness".

In terms of the model of the word, its text structure is symmetrical, which is highly perceptible to changes and is easily recognized. Combined with imagery themes, it has become the most auspicious sign of folk celebrations. This shows that the word "Shii" includes two connotations. The first one simply conveys the emotional "happiness" or "joy" of our inner state. Second, it is a general representation of the conditions between people, and between people and things such as wedding and fun. Therefore, when we are "not happy" or "not joyful", we can use "without joy" to explain our "upset" emotional reaction. The other implication of "without joy" is "not joyful". It is an external "angry" emotion stimulated from the mood. Therefore, the word "anger" represents roar, for example. "Not happy" is the emotion of "sorrow". Thus, the word "sorrow" is used. With regard to this, the word "Shii" has extended meanings including "happiness", "anger" and "sadness" Fig. 4.
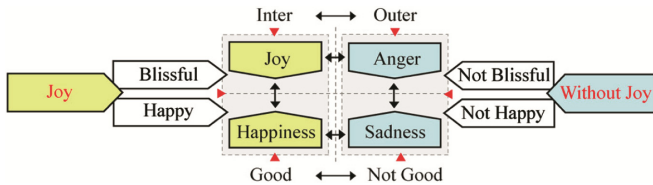

Fig. 4. Categories of emotions extended from the word "Shii"

3 Design Transfer and the Creation of the Word "Shii"

There are three steps in the transfer of design. The first step involves using LINE as the platform for design transfer. Second, in the category of personal created stickers in Taiwan "Mainstream/Dialect Language", five stickers with negative semantic meanings

were chosen to be decoded as the basis for design transfer. Third, through the three properties - external (tangible) transfer of cultural product design, mid (behavioral) transit of function, and internal (psychological) transform, the word "Shii" was transferred and served as the basis for the extensions including joy, anger, sorrow, and happiness. In doing so, the positive sticker design model could be carried out.

3.1   Design Platform and Sticker Decoding

Following 2015, after LINE released the platform LINE Designers Market on May 8th, designers can individually design stickers that are in line with their own personal styles and earn profits from them. By January 13th, retrieved information shows that there are a total of 170,509 sets of work on the shelf for sale. Among them, there are 4,807 sets, categorized under "Mainstream/Dialect Language". Since sticker creation is considered a personal creative expression, there are stickers that display negative expressions, making message recipients feel emotionally uncomfortable. Therefore, this study chose LINE as the platform for design transfer.

By decoding LINE stickers, it is hoped that the characteristics of stickers with negative semantic meanings can be grasped in terms of design transfer properties. Furthermore, the positive semantic meanings brought by paper-cut word "Shii" can be further adjusted. In this step, the five stickers with negative semantic meanings under the originally created sticker category "Mainstream/Dialect Language" are first semantically decoded. At the same time, the three main categories of symbol of Peirce are used as a reference for designing stickers: icon, index, and symbol, as shown in Table 1.

Table 1.   Sticker categories with negative semantic meanings in LINE

Category	Forms of Image				
LINE Icon					
Title	Super comfortable	Ass	B**ls of raging fire	Sorrow of the b**ls	Dry
Sound	Homophone	Homophone	Homophone	Homophone	Homophone
Index	Smile, opened mouth	Opened mouth	Raging fire, opened mouth	Crying, Opened mouth	Gripped fist, opened mouth
Implication	Comfortable	Very nice	Angry	Sad	Cursing
Symbol	Joyful（Joy）	Happy (Happiness)	Angry (Anger)	Sorrow (Sadness)	Not joyful (Without Joy)

***Source of data**：Mainstream/Dialect Language Category of personal creative stickers on LINE

From the content analysis of Table 1, we know that these are negative semantic meanings derived from the application of "homophones" in Chinese. For instance, super

comfortable is a reaction from interactions between males and females, implying very comfortable and enjoyable, which is used to illustrate "joy". "Ass" which in Chinese refers to "ass" is used for "cursing" others, but makes oneself feel very pleased and happy. "B**ls of raging fire" uses "testicles on fire" to convey the external emotion of extreme "anger". "Sorrow of the b**ls" is derived from the homophones of "slight" sorrow and "b**ls" of the bottom, which conveys the uncomfortable feeling of the private part. Through this, the inner "sorrow" is transferred. "Dry" and "f**k" words are homophones. Without directly using abusive words to curse others, the emotion of "not joyful" is conveyed. Through the features of Chinese language and exaggerated non-verbal facial expressions and body language, these stickers present specific expressions of correct behaviors. Although the purpose of message is achieved, the imagery design of this approach must be corrected.

3.2 The Properties of Design Transfer

When the message transmission of modern technology LINE stickers is focused on function, we must transfer our technology-centered technical discipline in the past to a sentimental state of mind that is humanity and culture-centered. In other words, this involves considering changes in people's affections and the depth of culture. In addition to promoting the interactions between products and users, cultural connotations are included into the realm of design thinking, forming a pleasant state of communication. Therefore, there are three levels of design transfer properties in this study: (1) outer or tangible level includes: color, texture, shape, surface decoration, lines, detailed handling, and structural composition properties and etc.; (2) middle or behavior level includes: function, operability, convenience of use, security, and integrated relationship properties, etc.; (3) inner or psychological level includes: special implications of products, story-inclined, emotional, and cultural characteristics, etc. (Lin 2004) Through the complete three levels of properties, in addition to the achievement of a better understanding of cultural characteristics, cultural essence is acquired in the process of design, as shown in Fig. 5.
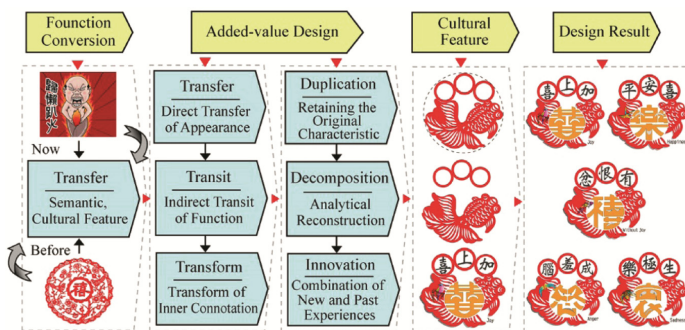

Fig. 5. The transfer model of cultural graphic design

3.2.1 The Whole Tangible-Level Transfer

The first step-transfer of the tangible level considers the outer transfer application of cultural characteristics. Among the LINE sticker samples, outer forms range from figurative to abstract figures or to exaggerated facial expression and body language. They present irregular forms of external patterns transmit the meanings of the images intuitively. In terms of color, to match the outer features, bright colors are used. Therefore, we see designers' personal styles and techniques in these images, but we cannot see the application of deep, cultural connotations. With regard to this, using "cultural connotation" as the basis of design thinking, we carry out thinking processes of accepting or rejecting and reconstruction through the features, color implications, and line properties of paper cutting. In this way, cultural art characteristics are grasped, presenting a new aspect of Value-added design.

In the philosophical ideas of Chinese people, "round" represents perfection and completeness. It is the perfect symbol of everything. Furthermore, "round shape" is one of the important features in modeling: "Advocating perfection". The so-called perfection refers to both wholeness and completeness. When individuals feel as if they cannot be in harmony, the nature of beauty is within its form, "seeking for unity in diversity". This objective basis reflects the perfection of the universe. This concept has formed a complete idealized mindset toward things. Thus, in the folk art works, what it seeks is a "whole and complete" image feature. Paper cutting is one of the examples (Zuo 1998). "Goldfish" is an incarnation of auspicious animals. In terms of color, "red" represents a symbol for vitality and vigor. With respect to this, the transfer of the external level uses "round shape" combination and the image element of "goldfish" in paper cutting. At the same time, "red" is used as the main color scheme for the design composition to show cultural essence and feature, as shown in Fig. 6.
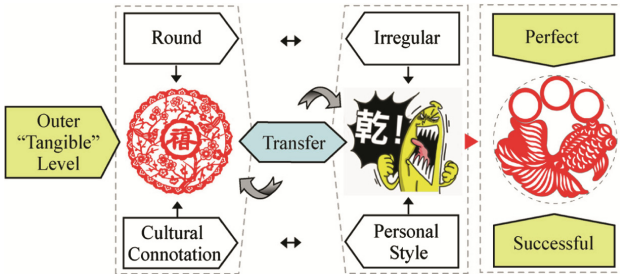

Fig. 6. The Value-added design of tangible level transfer (Color figure online)

3.2.2 The Hollow Function-Level Transit

The second step is the transit of behavioral level, which is based on users' behavioral mid-level. It emphasizes the indirect feature transit between functions. Through resolution or reconstruction of function, the purpose of transit is achieved.

The artistic style of "paper cutting" is unique. It is different from other three-dimensional, exaggerated image forms of LINE sticker contents. A pair of scissors or a knife neatly trim the edges and create a "hollow" silhouette, creating works of images that are

extremely simple, neat, fresh, and pure. In a flat, neat silhouette, a body of various sizes is symmetrically incorporated. This feature has become an exclusive characteristic of paper cutting art. Therefore, in the mid function level transit of stickers, we apply the unique "hollow" feature of silhouette in paper cutting art into images and texts such as joy, happiness, anger, sorrow, and without joy. It is hoped that with the simple and neat style of paper cutting, values can be clearly and directly added onto designs, thereby reflecting the ordinary spirit of internet users and cultural features, as shown in Fig. 7.
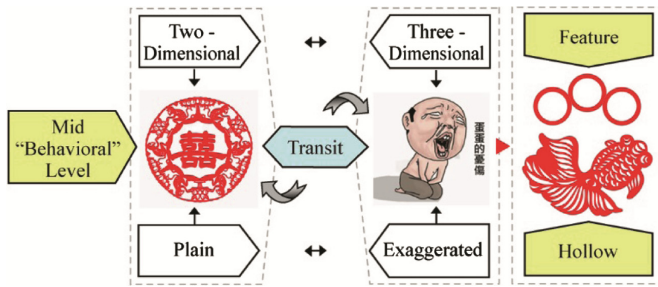

Fig. 7. The Value-added design of function-level transit

3.2.3 The Auspicious Inner-Level Transform

The third phase is the transform of intangible level. This is a level that is based on inner appeals. Emphasis is on the transform of images with special connotations, stories, and cultural features. It is also the main level of transform of this study.

In traditional Chinese culture, paper-cutting art is a kind of phenomenon that is based on the concept of "good fortune". The cultural significance that it implies surpasses oral language. It is even applied in prayers such as "everything goes well with prosperity, happiness and goodness". This feature is pursued for a kind of aesthetics of "fullness, wholeness, brilliance, and radiance". In terms of composition, emphasis is placed on symmetry, whole and complete perspective, and incompleteness is avoided. Most images are in pairs because symmetry and evenness imply calmness and perfection. In terms of color, red, gold and yellow are commonly used in the folk community. In terms of lines, simple and neat lines are full of rhythm and order of life (Tong 1996). With respect to this, this study uses this as the basis of the intangible-level transfer. In the image, "goldfish" is the homophone of "gold" and "jade", which symbolize wealth. The word "Shii" has extended meanings including "happiness", "sadness", "anger", and "without joy". The results of transform are the auspicious language features comprised from Chinese language idioms as shown in Fig. 8.
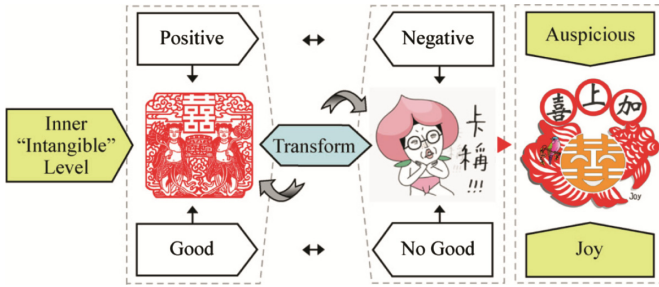
Fig. 8. The Value-added design of the intangible-level transform

With regard to the word "Shii", it is the symbol for "joyful". A combination of "double Shii" (囍) is "joy on top of joy" (喜上加喜), which represents a "very joyful" emotional state. The word "happiness" is the symbol for "happy" and "blissful". Its semantic meaning is "peaceful and happy" (平安喜樂), which conveys the meaning that if all things can be "peaceful" and well, it is a very "happy" enjoyment. The word "anger" is the symbol for "angry", which has the semantic meaning of "rage out of humiliation" (惱羞成怒). It explains that although people external emotional reac-tion such as anger, if we transfer our mood, we will obtain the same "good" result. The word "sorrow" is the symbol for "sadness", which has a semantic meaning of "extreme happiness followed by sorrow" (樂極生哀). It indicates that people must have a sense of alertness and have a grateful heart to avoid the feeling of sorrow. The two words "without joy" express the emotion of "not happy" or "not joyful". It is also a collec-tive way of expressing "anger" and "sorrow". Its semantic meaning is presented through "resentment without joy" (忿恨有不喜), indicating that when people feel unhappy because things turn out badly, we should transfer our negative emotions into the driving force for success. These are all positive thinking in culture and the "auspi-cious" semantic manifestation of paper cutting.

For this reason, "goldfish" and "roundness" are used as the theme of creation in the design of stickers because "gold" and "jade" are applications of Chinese homophones. They symbolize wealth. "Roundness" represents the expectation that all things will turn out "well". Inside the circle, auspicious texts are placed on the images. The auspicious texts show the "stable" and "harmonious" state of the image, specifically transferring cultural connotations onto stickers. It shows "whole" (圓滿) and "perfect" (完美) sticker design, as shown in Fig. 9.

Fig. 9. The complete diagram of Value-added design of paper-cut transfer (Color figure online)

4 Conclusion

When the traditional meets the modern, whether it is ancient historical culture or new-found style of hundred-year-old arts, all of these are for the glorious mission of maintaining cultural traditions. These are manifestations of fashion for the purpose of infusing modern elements into arts.

Through five LINE negative semantic stickers, this study uses traditional paper-cutting "Shii" (喜) word and its extensions - "happiness", "sadness", "anger" and "without joy" words. Through the semantic meanings and characteristics of Chinese characters, positive cultural elements are blended in. In the process of design transfer, three steps of cultural properties - outer tangible form, mid behavior, and inner emotion, three specific conclusions are obtained:

1. With respect to the external level: Using "whole" outer features as the basis of transfer, "round" paper-cut tangible form represents the auspicious outlook of "perfection" and "wholeness". With regard to this, the goldfish-like round shape design and arrangement serve as the foundation of transferring stickers' outer appearance. Red is used as the main color scheme. In addition to emphasizing the symbol of vitality, it also symbolizes perfection in all things.

2. With respect to the behavioral level: The foundation of transfer is based on the function of paper cutting's "hollowness". The simple and neat cutting of the image's edges not only emphasize the simplicity of the work and clearness of the image, the imagery features of "vagueness" and "realness" of "hollowness" also specifically apply humanistic philosophy of silhouette in design. This allows the audience to experience more cultural imaginations and fun through a flat perspective. This is the most significant feature of paper cutting function. Through this, we can clearly and directly reflect spiritual characteristics in cultural connotations.

3. With respect to the internal level: The foundation of transform is based on the cultural connotation of "auspicious" mentality. "Round shape" is a complete, isolated line. It is a symbol for perfectness. The homophone of goldfish is "gold" and "jade". It is a symbol for wealth, which is combined with "roundness" and forms the body of the composition. Next, texts are placed inside the circle to manifest auspicious connotations. For instance, the arrangement of the word "joy" and "joy on top of joy" indicates the text implication of "very joyful". When "happiness" is arranged with "peace and happiness", it conveys simplistic and plain stability. It is something that makes people feel "joyful" and "happy" about. On the other hand, the word "anger" can be presented as "rage out of humiliation" to convey the emotional reaction of anger. However, with the transfer of the mind, one can also obtain a "good" result. "Sorrow" is presented as "extreme pleasure followed by sorrow", which indicates that people must have a grateful heart and be prepared for sorrow. The words "without joy" are presented as "resentment without joy", indicating that when people feel unhappy because things turn out badly, we should transfer our negative emotions into the driving force for success. Last, the texts are used as the theme that emphasizes harmonious and stable perspective in life. Finally, paper-cutting features and cultural connotations are specifically transferred onto stickers with an outer

appearance of the complete "round shape". They are unique, meaningful sticker creations that show that everything is completed with "wholeness".

References

Barthes, R.: Elements of Semiology. Macmillan, London (1977)

Fell, J.P.: The phenomenological approach to emotion. In: Emotion. Brooks/Cole, Monterey (1977)

Gamble, T.K., Gamble, M.W.: Interpersonal Communication: Building Connections Together. SAGE Publications, Thousand Oaks (2013)

Hillman, J.: Emotion. Routledge & Kegan Paul, London (1960)

Han, C.Y.: Image Communication. Wiseman, Taipei (2005)

Hsu, C.-H., Lin, C.-L., Lin, R.: A study of framework and process development for cultural product design. In: Rau, P.L.P. (ed.) IDGD 2011. LNCS, vol. 6775, pp. 55–64. Springer, Heidelberg (2011). doi:10.1007/978-3-642-21660-2_7

Huang, M.F.: Application of pet therapy to healing style design: a case study of LINE stickers design. (Unpublished master's thesis). Department of National Taipei University of Technology, Taipei (2004)

Kreifeldt, J., Lin, R., Chuang, M.-C.: The importance of "feel" in product design feel, the neglected aesthetic "DO NOT TOUCH". In: Rau, P.L.P. (ed.) IDGD 2011. LNCS, vol. 6775, pp. 312–321. Springer, Heidelberg (2011). doi:10.1007/978-3-642-21660-2_35

Lin, R., Sun, M.X., Chang, Y.P., Chan, Y.C., Hsieh, Y.C., Huang, Y.C.: Designing "culture" into modern product: a case study of cultural product design. In: Aykin, N. (ed.) HCII 2007. LNCS, vol. 4559, pp. 146–153. Springer, Heidelberg (2007). doi:10.1007/978-3-540-73287-7_19

Lin, R.: Cultural creativity, value-added design. Art Apprec. **1**(7), 26–32 (2004)

LINE Taiwan: LINE-Blog (2015). http://official-blog.line.me/tw/archives/38020960.html

Norman, D.A.: Emotional Design: Why We Love (or Hate) Everyday Things. Basic Books, New York (2004)

Norman, D.A.: The Design of Everyday Things: Revised and Expanded Edition. Basic Books, New York (2014)

Strongman, K.T.: The Psychology of Emotion from Everyday Life to Theory. Wiley, Hoboken (2003)

Tao, S.Y.: Chinese Mascots. Dong Da, Taiwan (2003)

Tong, W.E.: Auspicious patterns of children play. Natl. Palace Mus. Month. Chin. Art **1**(157), 4–6 (1996)

Verderber, K., Beebe, S.A., Verberber, K.: Inter Act: Interpersonal Communication, Concepts, Skills and Contexts. Oxford University Press, Oxford (2004)

Watson, J.B.: Behaviorism, revised edn. University of Chicago Press, Chicago (1930)

Zheng, Z.M.: Cognitive Psychology. Laureate, Taipei (2004)

Zuo, H.Z.: Chinese Folk Art Modeling. Hu Nan, Chinese (1998)