

Imaging Processing in Word Affected by Stereotype

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Abstract: The core goal of this research is based on proving existence of Stereotype by sketching image of the object. 93 victims were selected from various part of the field. Through the brainstorming 5 objects (desk light, chair, glass, car, and pot) were selected and final two words were chosen for the experiment.(desk light and chair) Victims supposed to express the word by sketching and filling out the questionnaires. Through the collecting and analyzing the data it was proved with existence of the stereotype effect. Result of the experiment can be used at the field where needs high creative skills such as the design area. Hoping the result will give significant with improving the creativity in the field.

Key words: *Stereotype Image. Expression of Image. Experience and Inexperience of Design*

1. Introduction

This experiment has started to study stereotype reaction which has been deeply studied in psychology to give help towards the field where it requires high creativeness in the design work area. It is believed that every people have their own image with certain objects. It can be a single or multiple objects. It is written in 'Stereotype social psychology' by Kamise umiko like this. We have belief that people in the certain area have in common. Living in

the region(Aomori for example), there are some people who don't adopts the their specialties(apple), but we can say that it is not concerning the image. Despite this regional story 'women are good at hand work', 'Brazilians are good with playing football' there are certain images we have with specified group of people. Such as this to define common characterized people together, and to believe this people into some image we call this as Stereotype.[1]

Basically stereotype means certain image places strongly in the part of brain. This kind of character happens directly or indirectly. This kind of stereotype occurs not only on the tangible objects but also can be observed from not touchable. For example when looking at the specific region of people or culture of them, there also exists a stereotype effect, and these similar things can be found when we are looking certain nation or their country. Stereotype contains both positive and negative side of the part. The other type of stereotype is which can be observed from tangible object. In this case stereotype exists with object even without the direct experience such as 'will be like that', 'will look like something' kind of judgments can be made. These can be occurring on the person who is looking at the object, but it cannot be apply to everyone.

This research is not focused on stereotype that is being discussed in the field of social psychology. This is study of defined form not undefined form. Questionnaires were made with two different objects (desk light, chair), and these are the object easily can be found in our daily lives. Experiment and questionnaires took place on Japanese and Koreans living in Ibaraki prefecture, Tsukuba city present time April of 2009. Beside the majorities Thais, Iranians, Chinese and Russians also participated the experiment. Among the total 93 participants 39were women 54 were men, and 27.25 year old was the average age of the all participants. Among the victims 29 had studied or experienced with design field, but rest 64 were committed other working area. (Physical education, medical, engineering, lingual, education, management etc.)

2. Object of experiment

This research contains four objects in general. Firstly, proving the exists of stereotype with questionnaires from object around living area. Secondly, to find primary factor of the stereotype if it really exists. Thirdly, to find out

how experience can affect the skill of expression with sketching. For the last, to find out the way to apply this experiment research to area where it requires high creativity.

3. Requirements for object selection in experiment

To abstract the objective data from the experiment (not regarding nationality, back study, sex, age etc) everyone was free to participate in the experiment. In the process of object selection 5 more candidates were joined beside the researchers. Object selections were made from the items we can find easily from our living. 5 candidates wrote the name of the object on the paper and later grouped them with the similarities. In summary total 11 object groups were made. Among these items too complicated or simple objects were deleted from the list and one representative object was chosen from each categories. Another filtering job was made to come up with final 5 objects to be used in experiment. Desk light, glass, car, chair and pot were chosen for category represent and desk light and chair were chosen to use for experiment.

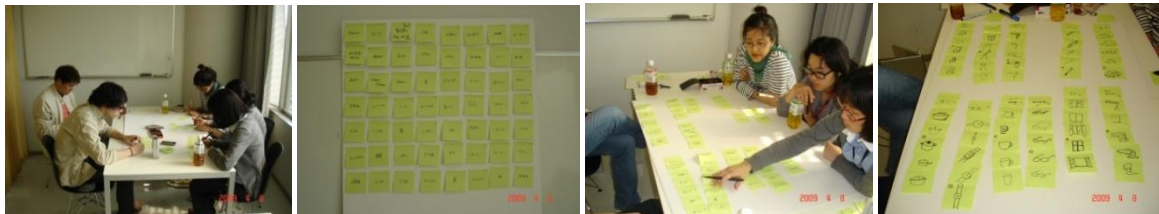


Figure.1 Process of object selection

4. Test result from name of the object

Above mentioned two types of objects were shown to subject, and requested for expressing those objects with sketching. After when sketching stage is done subjects were asked to fill out the questionnaires regarding stereotypes. Sketch drawn by subject were categorized by items. By summing up the data made by subject led to find out existence of stereotype and primary factor. A questionnaire made in table 1 was made exactly the same

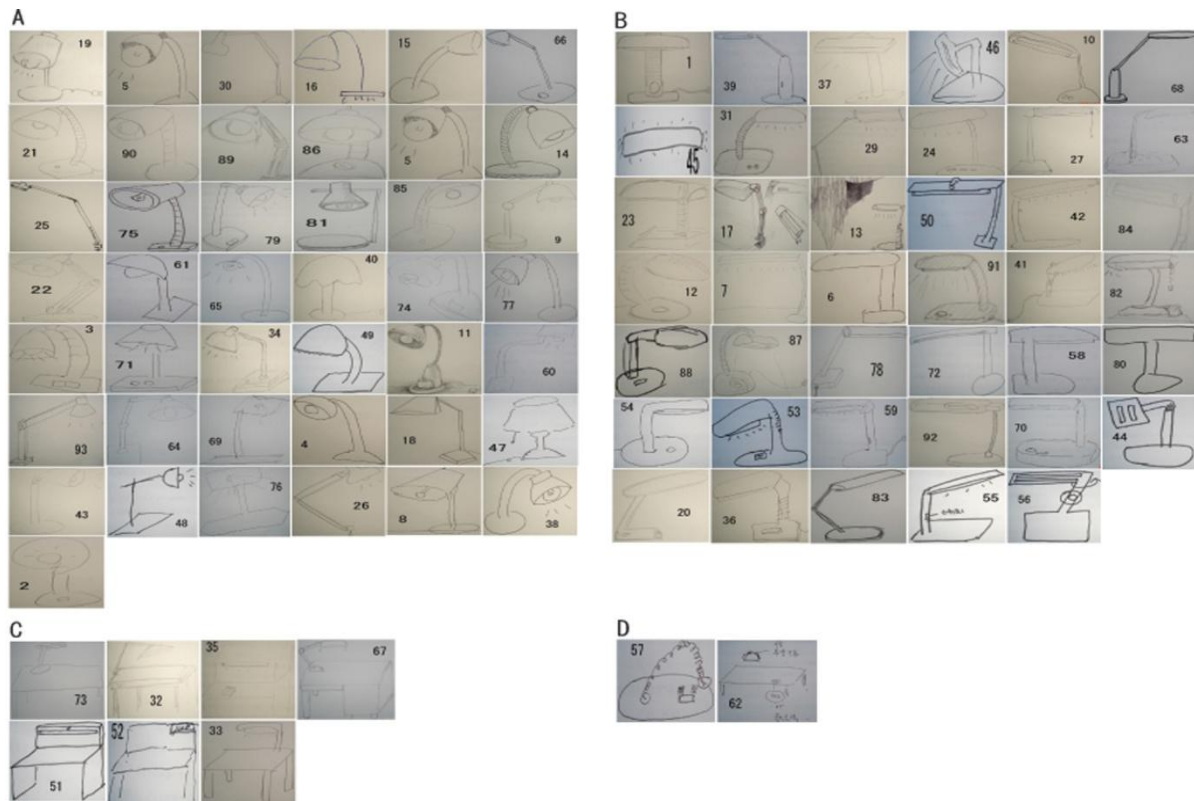


Figure.2 Sketches from 93 subjects expressing shape of desk-light

In table 2 contains 8 different responses from 93 subjects. Question 1 (Did you expressed the image of Desk light what you already have in your mind?) had among 93 subjects 39 answered yes which show most of the subject had specific image of the object in their minds already. However 30 subjects answered no to show which they don't have any specific images of their own. In question 2 (Did you had any image in your mind when expressing Desk Light?) 72 out of 93 subjects answered yes, which shows they have specific form of images in their minds when they heard of the object name. In question 3(What was your image of Desk Light at first? Please write this in word.) subjects were asked to write certain letter that they are thinking of, and it was sorted by words. It was grouped by a word that contains common meanings inside of the word. Inside the grouping beside without answering 16 people thought of desk, 13 subject thought of light bulb, 9 were thinking of in house use, and 7 subjects were thinking of long neon light. Rest of 16 came up with different word which was not possible to find the common key inside. In question 4 (Have you ever used the desk light that you have sketched?) is asking experience with apparatus, 69 among 93 already showed experience in advance. This shows desk light item has deep stereotype with experience. In question 5 (When did you have experience with this Desk

light?) showed 36 subject answered that they are still using the product in present which affects creation of the stereotype in this case. In question 6 (What was your experience with this Desk light?) answer with having good memories took more than half of the total subjects. And this shows good experience affects the stereotype in this case. In question 7(Is there any specific Desk light with what you have expressed?) only 9 answered with them have specific light have experiences in advance. However 78 subjects answered with no. This result can be extracted from special characteristics of the product. Functional product like the light will be remembered more with functions than specific name of brands or model. In question 8 (What is the name of this model?) 5 out of 93 subjects have answered to this question. Only 3 subjects remembered the name of the product. This shows most of the subjects came up with certain images based on their experience and good memory of use. This can be translated as experience with the apparatus and memory can affect the stereotype. Other subjects beside the 3, name of the brand or the model did not affect any stereotype to them.

Table 2. Response table from stereotype experiment from the subjects

1. Did you express the image of Desk light what you already have in your mind?						
① Yes	② No	③ Don't know	④ Etc	⑤ No answer		
39 People	30 People	22 People	1 People	1 People		
41.93%	32.25%	23.65%	1.07%	1.07%		
2. Did you have any image in your mind when expressing Desk Light?						
① Yes	② No	③ Don't know	④ Etc	⑤ No answer		
72 People	13 People	5 People	3 People	0 People		
77.41%	13.97%	5.37%	3.22%	0%		
3. What was your image of Desk Light at first? Please write this in word.						
Desk	Bulb	Using in house	Long neon light	Light	Etc	No answer
16 People	13 People	9 People	7 People	3 People	16 People	29 People
17.20%	13.97%	9.67%	7.52%	3.22%	17.20%	31.18%

4. Have you ever used the desk light that you have sketched?					
① Yes	② No	③ Don't know	④ Etc	⑤ No answer	
69 People	18 People	22 People	2 People	2 People	
74.19%	19.35%	23.65%	2.15%	2.15%	
5. When did you have experience with this Desk light?					
①Elementary school	② Middle school	③ High school	④ Still using	⑤ No answer	⑥ Multiple using
8 People	7 People	11 People	36 People	23 People	4 People
8.60%	7.52%	11.82%	38.70%	24.73%	4.30%
6. What was your experience with this Desk light?					
①Very likely	② Less likely	③ Don't know	④ Not good	⑤ Not very good	⑥No answer
19 People	31 People	29 People	5 People	1 People	8 People
20.43%	33.33%	31.18%	5.37%	1.07%	8.60%
7. Is there any specific Desk light with what you have expressed?					
①Yes	②No	③Don't know	④Etc	⑤No answer	
9 People	38 People	40 People	1 People	5 People	
9.67%	40.86%	43.10%	1.07%	5.37%	

4.2. Stereotype experiment with Chair

Experiment was carried on to prove existence of stereotype by using object chair. Process was followed same pattern that was done with desk light. [Figure 3] shows sketches done by subjects and groupings were done with four different categories. Group [A] shows typical chair that can be found in elementary school, Group [B] shows chair which has wheels and function with rotation which have similar look of office furniture. Group [C]

shows the shape of dinning chair. Group [D] is consisting with type of chair doesn't belongs to any of the other categories. When subjects were asked to draw chair, they had to come out with very chair like, preferable shape of the chair that they want to have. Thorough the sketches done, it is easy to find out most of the sketches followed the shape of the chairs that are used in school lives which were grouped into Group [A]. Even though subjects received only one word but came out with similar shape of the object showed that there was very strong stereotype took place during the experiment. Based on this case study we can see how stereotype can affect the imagination even though it might not be true. [2.3] Group [B] shows stereotype comes out with the shape of office chair.

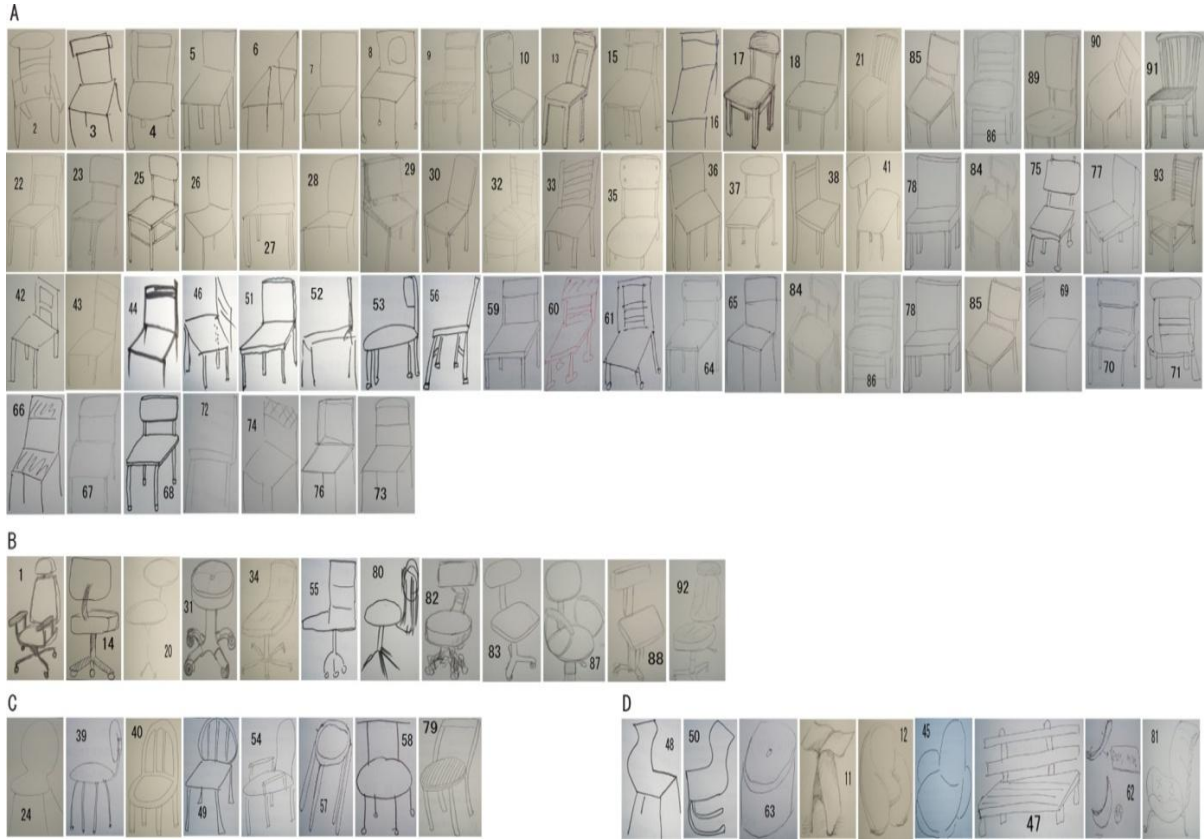


Figure. 3 Sketches from 93 subjects expressing shape of chairs

In question 1 (Did you express the image of chair what you already have in your mind?) 52 Subjects answered with yes. This can be understood as there exists certain image of chair when they are told to sketch chair. In question 2 (Did you have any image in your mind when expressing chair?) 63 subjects showed that they have

very specific images for chair. In question 3(What was your image of chair at first? Please write this in word.) connecting to question 2 besides subjects who didn't answered the question 22 subjects the most number had image of chair with that were used in our school lives. In question 4(Have you ever used the chair that you have sketched?) 71 subjects answered with experience with mentioned product, which tells experience affects strongly on stereotype of the object. In question 5(When did you have experience with this chair?) 24 answered had experience in elementary school year, and there was 18 were answered with still using the product, other 12 answered with experience during high school life. Here we can see school life and experience affects the stereotype. In question 6(What was your experience with this chair?) 17 and 23 subjects said positive answer with the questions and rest came out with negative answer regarding memory with the product. In this case it can be translated as in the process of stereotype with chair affects strongly by the positive memory then negative memory. In question 7(Is there any specific chair with what you have expressed?) there was only 11 subject answered with yes, however rest had no memory with name of brand or model. In question 8 (What is the name of this model?) 11 subjects who had answered in question 7 answered only 7 answered in question 8. Among 2 person answered with name of the brand but rest 5 of them came out with non related answer. To finalize the survey it can be understood as more than half of the subject attends the experiments with image in stereotype.

Table 3. Response table from stereotype experiment from the subjects

1. Did you express the image of chair what you already have in your mind?				
①Yes	②No	③Don't know	④Etc	⑤No answer
52People	32People	8 People	0 People	1 People
55.91%	43.40%	8.60%	0%	1.07%
2. Did you have any image in your mind when expressing chair?				
①Yes	②No	③Don't know	④Etc	⑤No answer
63 People	20 People	10 People	0 People	0 People
67.74%	21.50%	10.75%	0%	0%

3. What was your image of chair at first? Please write this in word.					
School chair	4Legs with back	Wooden chair	Traditional chair	Etc	No answer
22 People	12 People	5 People	2 People	19 People	33 People
23.65%	12.90%	5.37%	2.15%	20.43%	35.48%
4. Have you ever used the chair that you have sketched?					
①Yes	②No	③don't know	④etc	⑤No answer	
71 People	11 People	8 People	1 People	1 People	
76.34%	11.82%	8.60%	1.07%	1.07%	
5. When did you have experience with this chair?					
①Elementary school	② Middle school	③High-school	④Still using	⑤No answer	⑥Multiple using
24 People	6 People	12 People	18 People	20 People	11 People
25.80%	6.45%	12.90%	19.35%	21.50%	11.82%
6. What was your experience with this chair?					
①Very likely	②Less likely	③Don't know	④Not good	⑤Not very good	⑥No answer
17 People	23 People	29 People	10 People	4 People	10 People
18.27%	24.73%	31.18%	10.75%	4.30%	10.75%
7. Is there any specific chair with what you have expressed?					
①Yes	②No	③Don't know	④Etc	⑤No answer	
11 People	43 People	34 People	1 People	4 People	
11.82%	46.23%	36.55%	1.07%	4.30%	

4. Conclusion

In the case of desk light we can see subjects were affected by stereotype. And with the request of the sketch they came out with the answer subjects have some specific images in their minds. What we can extract from the

experiment is that good memory has strong affect on formation of the stereotype. But only the few remembers the name or the brand of the model. This kind of information cannot help with the stereotype. In the experiment of the chair we have arrived to some similar conclusion, among 93 subjects half of them had answered with already have certain specific images on their head. This can be regard to most of them have memory of the chair that they have used during their school year. What is interesting is that most of them imagined of the wooden chair they have used in the elementary school. Japanese and Korean subject can be the reason since they occupied big portion of the subjects. To come out with better and accurate result it has to be studied with more various type of the object. With this result we expect to help the group of peoples requires high demand of creativity.

5. References and Citations

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