Feasibility in Comparison of Originality

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Received: June 8, 2012Accepted: July 16, 2012Online Published: October 26, 2012doi:10.5539/ass.v8n13p244URL: http://dx.doi.org/10.5539/ass.v8n13p244

Abstract

Analysis and empirical study with the experimental method has been widely applied to study of a variety of disciplines as a common one. In the past few years, quite a lot of researchers expert in the visual convey theory have also introduced this method into the study field of graphic design. In this regard, what has the most research achievements is study on influences of design tool on formation of originality. This paper resorts to the experimental method based on the hand-printed way and the digital way to analyze the path dependence problem of originality formation. This paper is a retrial of the experiment by Stone and Candice (2007) and comes up with conclusions different from conclusions by Stone and Candice (2007) by a comparative analysis of the number of design solutions obtained in the retrial of the experiment. These different conclusions also originate from differences of design tasks and differences of originality in addition to differences of the screening method of originality.

Keywords: design tool, hand-painted way, digital way (computer aided design), originality, difference of originality

1. Difficulties in Comparison of Originality

Comparison in the field of arts has always been a difficulty in the academic circle, which, at the same time, is a proposition that is inevitable and is repeatedly mentioned. According to Edger Morin (2008) (Note 1), the most serious threat encountered by human kind came from blindness and out of control in the process of cognition. Morin further concluded that these dangers and blindness were generated from our organizational mode of dismemberment for our knowledge and this kind of dismemberment organizational mode was of no help at all in our knowledge in complex problems. Yet, comparison of works of art we are going to discuss is exactly comparison of complex problems. If the viewpoint of Morin is correct, then comparison of works of art by decomposing them into multiple elements was wrong from the very first.

Nevertheless, there are some researchers who start out from the perspective of cross-cultural design comparison and believe that the problem of comparability can be surpassed. Based on a series of design affairology theories, Li Yongchun (2009) placed design comparison at a level of complex system and hoped for a kind of whole, dynamic, multi-level, multi-perspective and non-linear design comparison. The above two extremes we have provided generally stand for a tendency. That is to say, at the very beginning, comparison of works of art or originality ought be focused on the level of complexity and should not be decomposed for comparison. However, at the very beginning, this kind of comparison is quite difficult since it has no feasibility. Especially in the process of teaching of the curriculum of visual convey, it is even more difficult to realize for a beginner. Therefore, whenever the scholars discuss this kind of comparison, what they discuss most is principles and what they discuss less is practice. Comparison by decomposition naturally means millions of troubles. Yet, do we have a potential replacer?

The answer is negative. In other words, comparison by decomposition goes first and then comparison of complexity in logic. Here, feasibility is the primary because any unfeasible solution is in vain even through it has millions of advantages. As a matter of fact, comparison of all originality gives superior consideration to feasibility and then an optimal solution can be picked up among all the feasible solutions. If a serious deficiency exists in the feasible solutions, what we are able to do is firstly to continuously correct these solutions instead of starting all over again by going beyond these feasible solutions.

2. Some Feasible Solutions

In the former studies, there have been a lot of scholars who have conducted discussion on the problem of feasibility in comparison of originality. The focus of the discussion is mainly on the experimental mode of the comparison of originality with feasibility.

The first mode is to cut off the entire procedure of a design and allow the designers to make a self-representation. For example, the mode by Cross et al (1996) was to analyze the oral recording and interview of the designers and then to further reveal differences in formation of originality. The mode by Schenk (1991) was to draw out some information in the process of cognition in the design by the means of reviewing the questionnaire survey so as to further make an analysis of the characteristics of the design per se. This kind of experiment, as a matter of fact, is to make a comparison of originality by comparing the design motives of the different designers. Nonetheless, as we all know, the motive is totally different from the works (originality) that is really manifested. Here, what the scholars have actually neglected is the difference between the motive and the originality.

The second mode is to exclude the self-representation by the designers and to merely analyze the originality (solution) of the designers. Won, P. H. (2001) conducted an experiment about differences in the design style in internal product design based on hand-painted way and computer aid way. Katherine Stone and Tom Candice (2007) discussed differences in the design strategies of both digitalized tool and hand-painted tool through the experiment. Obviously, this kind of experiment evaded the problem of differences between the motive and the originality.

The above two kinds of experiment modes have three obvious common features. First of all, both of these two experiments are able to compare in a relatively objective way the selective differences of the same designer in different originality means. In other words, this kind comparison is feasible. Then, both of these two experiments are an analysis of the number of originality, which changes our understanding in the past that comparison of originality was merely descriptive and qualitative instead of quantitative. Finally, both of the experiments have obvious repeatability. There is no researcher who has read this sort of research literature and is unable to repeat these experiments or to conduct a corrective experiment under definite conditions. Wang Xiaofei (2010) had conducted a series of corrective experiments (In Figure 1 and Figure 2 is a design solution of a subject) based on the study of the second mode. Similarly, the purpose of the experiments was to discuss differences of design strategy in digitalized tool and hand-painted tool. The experiment by Wang Xiaofei (2010) required all the subjects to combine the letters A and B into a design solution and the specific requirements are as follows:

(1) The subjects have to complete the same design task by respectively using the hand-painted way and the digital way. That is to say, each subject needs to submit two originality patterns printed with gridding which were provided in anticipation by the testers (one printed pattern and one electronic pattern). Only one originality can be filled in each gridding.

(2) No case sensitive.

(3) Each letter should appear at least once in each originality (solution).

(4) Each combination should be easy to identify.

(5) The solution is not related to color and only the two colors of blank and white are allowed to appear in the design draft.

(6) Each pattern can be transformed, such as, zoom, spin, image and inversion, etc.

(7) The subject may choose his own digital design language, including Photoshop and AI.



Figure 1.



Figure 2.

Different from the experiment by Katherine Stone and Tom Candice (2007), the experiment by Wang Xiaofei (2010) did not put solutions of all designers together to screen out different solutions in processing the experimental data. Instead, the experiment got rid of similar solutions within the solutions of each subject and kept different solutions. In other words, Katherine Stone and Tom Candice (2007) made an analysis based on solutions by excluding individuals, whereas study by Wang Xiaofei (2010) was an analysis about the number of solutions based on designers. Conclusions of the experiment by Wang Xiaofei (2010) partly coincided with the conclusions by Stone and Candice (2007), but at the same time, part of differences also existed. For instance, the experiment by Wang Xiaofei (2010) altogether got 157 hand-painted originalities and 156 electronic (digital) originalities, which did not present significant differences between the hand-painted way and the digital way in terms of the number of effective originality. Thus, so far as each designer is concerned, the way in which originality is formed has no systematic bias. As for both the hand-painted way and the digital way, the symbiosis is the most commonly used method considering the method of originality. However, the conclusions by Stone and Candice were that, in the digital way, t symbiosis method had the lowest usage frequency and the corresponding number of originality was obviously smaller than the number of originality in the hand-painted way.

3. Further Discussion

It can be seen from the above discussion that all these feasible originality comparison solutions have some problems that are still open for discussion.

In the first place, whether the subject is likely to express in a sincere way the process of originality formation at the bottom of his heart. The first mode has significant deficiency, that is, whether the expression of the subject is able to really express his formation of originality. The answer is negative. The second mode overcomes defect of the first one as it does not need the subject to express his formation of originality. However, in order to come to an effective result, the second mode has to set up the design task in a quite simple way because in a complex task, the dependence relationship between originality and the formation process of originality may become quite implicit. Under such circumstance, instead, the first mode may be more effective.

In the second place, whether the attitude of the subject is positive. Considering the experimental data, the attitude of the subject who participates in the test is quite positive, so the strategy has great stability. In other words, the subject is attempting to manifest his real preference through his design strategy. However, as a matter of fact, we are not able to guarantee that the result of each experiment may have its stability of strategy. Incentive to the subject is a complex problem which should not be evaded.

In the third place, generally speaking, similar experiments get different results. As for these discrepancies, we make the following explanation. The two experiments by Stone and Candice (2007) and by Wang Xiaofei (2010) are generally similar both in terms of the experiment purpose and experiment requirement and in terms of the process of implementation. Yet, these two experiments have some subtle discrepancies. The experiment by Katherine Stone and Tom Candice (2007) was an analysis based on solutions that excluded individuals, whereas the study by Wang Xiaofei (2010) was an analysis about the number of design solutions based on the designers. Furthermore, so far as the design task is concerned, the design task of Stone and Candice (2007) was 6 and E, whereas the design task of the experiment by Wang Xiaofei (2010) was A and B. It is exactly these discrepancies that lead to differences of the two experiments in terms of selection of originality method and number of

originality.

In the fourth place, this sort of experiment is unlikely to quantize discrepancies of originality. As a matter of fact, in the experiment by Wang Xiaofei (2010, we may find that the hand-painted draft even had greater discrepancy of originality (the subject was the teacher who made subjective evaluation on originality of students). Yet, on the contrary, discrepancy of originality in the computer printed draft was not great and quite a lot of originalities had significant similarity. And discussion on this kind of discrepancy of originality will necessarily bring in the subjective element, namely, what was mentioned at the very beginning of the paper --- focus on comparison at the level of complexity.

It is necessary for us to make a distinction between the above four points. The third point exactly indicates the superiority of this kind of method, that is, an abundant conclusion by means of subtle adjustment. However, the first point, the second point and the fourth point are actually the same problem, namely, how to deal with the subjective factors of both the tester and the subject in the experiment. In reality, the subjectivity in comparison of originality is unable to be avoided. If there does exist a relatively objective standard, then arts will also be degenerated to mechanical operation. Therefore, all comparison is a combination of subjectivity with objectivity. What we can do is to find a certain balance between these two trends. However, it is a failure at the very first to search for a completely objective mode of originality comparison.

In addition, the above feasible solutions all have a common problem, namely, the design tasks in all experiments are too simple. In that case, as a matter of fact, so long as enough evaluators give a mark to certain originality and then make an analysis and totaling with an appropriate statistic method, it is possible that we get a relatively objective result of originality comparison. Here, it is that each evaluator makes a general evaluation on certain originality instead of making evaluation by decomposing the originality. Of course, such evaluation might encounter with the problem of independence and the conformity tendency of the evaluators, etc., and so on. However, all these problems can be corrected by an analysis of data after the event. What is more important, this solution has an obvious advantage of maneuverability. This is exactly what this paper is aimed at.

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Note

Note 1. Edgar Morin, Introduction a la pensee complexe, East China Normal University Press, 2008, 4, p3-10. The Chinese translation by Chen Yizhuang is "The most serious danger is connected with progress of blindness in cognition and out-of-control".