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# Looking Forward to Seeing Real Experiences through Photos?

## It Depends on the Quality of Photos

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**Abstract:** We investigated whether the quality of photos will exert an influence on the post-evaluation of the experience? Through two experiments, we found that the effect does exist. When people reactivate memories through photos, photos can work in the following ways. First, photos can make the memory related to photo content more prominent. Secondly, photos content can replace the already obscured original memory to a certain extent. When the quality of photos is high, people tend to accept the memory being reprocessed, driven by photos, thus improving the evaluation of the original experience. When the quality of the photos is low, people subconsciously reject the information that photos convey and still insist on the judgment of the original experience. The above scenarios apply when people still have an initial impression on their experiences.

Keywords: the quality of photos, experiences, evaluation.

### 1. INTRODUCTION

When people endeavor to look for a variety of beautiful backgrounds, smile or pose in front of the camera, it is obvious that an exquisite photo may be born. A better subject, more light, more professional equipment...People unconsciously work hard to improve the quality of photos. However, except for appreciation, sharing photos to social circles, showing off or increasing the joy of the moment, have people ever thought what better pictures can exactly bring to them?

As a tool for congealing time (Bruno, 2003), photos are often expected to help people recall their original experiences afterwards. However, this is not always the case. Memory may be blurred over time, and when photographs are used to relive experiences, photos may prompt people to reprocess their memories, leaving the experiences out of original appearance.

In this paper, through two experiments, we predict and prove that: when the memory is vague and the impression of the original experience still exists, the high-quality photos can prompt people to make a more positive evaluation of experiences; while the low-quality photos do not change people's evaluation of experiences. The self-enhancement plays a critical role in this process. Our focus is on uncovering a novel and interesting phenomenon, which fills a gap in the literature on the field of photo attributes.

As a relatively novel topic, researches about photos are quite limited, and most focus on the impact of photos on memory accuracy. This research contributes to extent researches on how photos affect evaluations of experiences by revealing the hidden value of an unexplored factor, the quality of photos. Considering the popularity of photo-based websites and apps, as well as people's habits of uploading photos, this paper has significant managerial implications. For example, online travel websites and applications might increase their positive amount of WOM by encouraging consumers to upload high-quality photos and give reviews.

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## 2. LITERATURE REVIEW AND PREDICTIONS

Photos, are the condensation of destination images, defined as “the expression of all objective knowledge, impressions, prejudices, imaginations, and emotional thoughts with which a person or a group judges a particular object or place”<sup>[1]</sup>. Photos are also considered to be products that select, shape, and construct physical elements to reflect the psychology of the photographer (Crawshaw & Urry, 1997). Photos can capture the fleeting moments<sup>[2]</sup>, so people often use photos to record information and life events (Chalfen, 1998; Harrison, 2002), i.e., recording the current experience. Experiences are collection of things that people have seen, done, or encountered. Memory, which is the faculty of the brain by which information is encoded, stored, and retrieved when needed, is important for experience, because it preserves the information in the experience. In fact, although the photos can record the experience, the content recorded in the photo does not necessarily fit the real one. First of all, as a carrier of visual information, photos often miss information such as hearing, touch, smell and taste<sup>[3]</sup>. Even the visual information in the experience, the photos can only capture a portion, and sometimes what they record is different from people’s normal perspective. Secondly, researches on the photo-taking-impairment effect<sup>[4]</sup> suggest that the act of taking pictures may weaken the memory of the object being photographed. As time goes by, memory becomes unstable, and some information about the original experience begins to be missing. Under these circumstances, people need to depend on external clues and tools such as photos to help them reactivate and remember what happened before. It is precisely in this process that the memory of experience in the human mind has been distorted.

The memory fragmentation hypothesis<sup>[5]</sup> argues that experiences are stored as fragments in the brain, and that a memory fragment traces the perception of a segment. It is notable that photos can provide a semantic context that makes related ideas and images more accessible to people's minds<sup>[6]</sup>. Thus, in the presence of photos, people are more likely to recall the experience segment related to the photo content<sup>[7]</sup>. Furthermore, photos can prompt people to reprocess and encode information based on the photo content<sup>[8]</sup>. Research on the misinformation effect<sup>[6]</sup> confirms the enormous impact that photos can exert on people's memories—people rework memories based on photo content, and even fictionalize memories that do not belong to them, and considered the fabricated photos content as what they have actually experienced.

Putting these together, we know that photos, obviously, will affect people's evaluation of experiences. We predict that quality—the important attribute of the photos—will inevitably involve this process, thus affecting people's evaluation of the experience<sup>[9]</sup>.

The classic photography materials *New York Institute of Photography* believes that if people want to take a good photo, then three principles should be followed : a. Know the subject; b. Draw attention to subject; c. Simplify. Photos of high quality can present more beautiful scenery, more vivid stories and more positive experiences. When people process information based on high-quality photo content, compared to low-quality photographs, the memory highlighted or reworked will be more positive.

Therefore, we predict that:

**H1:** When people use high-quality photos to relive their experiences, people's post evaluations of the original experience can be more positive compared to low-quality photos.

Self-enhancement believes that people tend to selectively emphasize and exaggerate self-positive aspects<sup>[10]</sup>. Self-enhancing biases motivate people to experience positive emotions and avoid being involved in negative feelings<sup>[11]</sup>. Conway also suggests that in the process of retrieval, people usually modify various aspects of their memory to maintain or enhance an ideal current self<sup>[12]</sup>.

This also means while people still have an impression of the original experience, facing high-quality photos, people are more likely to accept the memory being reprocessed, driven by photos, and thus improving the evaluation of the original experience. And when the quality of the photos is not ideal, people subconsciously

refuse to accept the photo information and insist on the original experience judgment. Thus:

**H2:** When using photos to relive experiences, high-quality photos can enhance people's positive evaluations on experiences, while low-quality photos will not affect people's evaluation of experiences.

We conducted two studies to test our assumptions. Both the study 1 and study 2 verified hypothesis 1. In the second experiment, the principle mechanism behind hypothesis 1, that is, hypothesis 2 is further explored and verified.

### 3. STUDY ONE

We designed study 1 to examine the association between the quality of photographs and enjoyment of previous experiences. We showed participants a first-person perspective video of real-life experience in London and asked them to imagine actually experiencing the events as if they were the protagonists in the video.

#### 3.1 Pretest

We selected five scenes from the video and each scene corresponds to several photos which can present the scene. Then, we recruited 59 participants (47% female, mean age = 26.7) to assess the quality of photos. The results show that the quality of the different photos in each scene is significantly different (see appendix). We picked out photos with the highest and lowest average scores in each scene separately as props in our following formal experiment. We ensured that the photos of high quality (vs. low) selected were recognized by most of people.

#### 3.2 Methods

Participants were randomly assigned to one of two conditions (high-quality photos vs. low-quality photos). Participants were first asked to watch a first-person perspective of a street walk in London (about 1 second and 23 seconds) and imagine they were actually experiencing what the video showed. In the high-quality(vs. low-quality) photo condition, we showed the participants a set of high-quality(vs. low-quality) photos, which presented the same scenes they had experienced in the previous video.

After that, we replicated the experimental operations of Barasch by asking the participants how much they enjoyed this experience. In addition, as another indicator of how much individuals enjoyed their experience, we asked them "To what extent would you recommend visiting the same place where you have experienced to your friends?" from 1 = "Not at all" to 7 = "Extremely."<sup>[13]</sup>

As a check of the quality manipulation, participants were required to assess the quality of the photos(from 1 = "Extremely low" to 7 = "Extremely high.") Besides that, we asked participants some basic information.

#### 3.3 Results

**Manipulation check of quality of photos:** As we expected, the quality scores that participants rated significantly varied between two conditions ( $M_{\text{high-qua}}=5.255$ ,  $SD=1.4810$ , 95% CI[4.854,4.655],  $M_{\text{low-qua}}=3.060$ ,  $SD=1.6953$ , 95% CI[2.578,3.542],  $F(1,103)=50.112$ ,  $p=0.000$ ).

**Enjoyment.** We estimated a regression with enjoyment as the dependent variable and quality of photos (low-quality = 0; high-quality = 1) as the independent variable in order to test our hypothesis. Consistent with our prediction, we found an effect of photos' quality on the enjoyment of experiences ( $B = 0.598$ ,  $SE = 0.286$ ,  $t(104) = 2.095$ ,  $p = .039$ ), which suggested high-quality photos was associated with higher enjoyment relative to low-quality photos. We also found a marginally significant effect of photos' quality on the other indicator, recommendation ( $B = 0.600$ ,  $SE = 0.318$ ,  $t(104) = 1.885$ ,  $p = .062$ ), indicating people prefer to recommend the experience to a friend when the photos they have taken were of high quality.

### 3.4 Discussion

Study 1 have provided evidence that the quality of photos has influence on evaluation of experiences (H1). However, we can't make sure whether high-quality photos improve people's evaluations or low-quality photos reduce people's evaluations or both of them can make sense. We will further test our findings in study 2 by examining a different context.

## 4. STUDY TWO

In study 2, we used another first-person perspective video of real-life experience. Compared with study 1, we made three improvements. First, we selected a video with richer scenes in Thailand, and added photo-taking animation and sound effects to the video, making the participants more likely to have an immersive feeling. Second, we added another condition where the participants needed to evaluate the experience without being shown any photos. This added condition was designed to examine how the quality of photos affected the evaluation of experience. Third, we have adopted a different scale to measure the enjoyment.

### 4.1 Pretest

We recruited 54 participants (42.6% female, mean age = 25.5) to assess the photos we planned to adopt in our next study (see appendix). The procedures were the same as study 1 and we finally picked out 6 groups of photos for different scenes.

### 4.2 Methods

201(65% female, mean age =23.9) individuals participated in study 2 online or offline and they were assigned to one of three conditions (high-quality photos vs. low-quality photos vs. no-photo). The experimental procedures and manipulation in the two conditions concerning different qualities of photos are the same as study 1. In the no-photo condition, participants were asked to report their enjoyment scores while they were not given any photos about the experience.

Four items assessed enjoyment of the traveling experience: the extent to which participants liked the experience (1 = "disliked it very much" and 7 = "liked it very much") and the extent to which the experience was fun, enjoyable, and good (1 = "not at all" and 7 = "a great deal")<sup>[14]</sup>.

### 4.3 Results

**Manipulation check of the quality of photos:** The results showed that photos' quality significantly varied between two conditions ( $M_{\text{high-qua}}=5.981$ ,  $SD=0.7794$ , 95%CI[5.764,6.198],  $M_{\text{low-qua}}=2.119$ ,  $SD=1.1351$ , 95%CI[1.843,2.396],  $F(1,117)=440.195$ ,  $p=0.000$ ), proving that the quality control was successful.

**Enjoyment:** We estimated a ANOVA with the manipulation of quality of photos as the only independent variable. Participants reported higher enjoyment in high-quality photos condition ( $M_{\text{high-qua}}=5.7308$ ,  $SD=0.90728$ , 95%CI[5.4782,5.9834]) than reported enjoyment in low-quality photos condition ( $M_{\text{low-qua}}=5.1493$ ,  $SD=1.22479$ , 95%CI[4.8505,5.4480],  $p=0.015$ ) and no-photo condition ( $M_{\text{no-photo}}=5.2031$ ,  $SD=1.12940$ , 95%CI[4.9210,5.4852],  $p=0.035$ ). There is no significant difference in participants' enjoyment between low-quality condition and no-photo condition ( $p=1.00$ , see figure1).

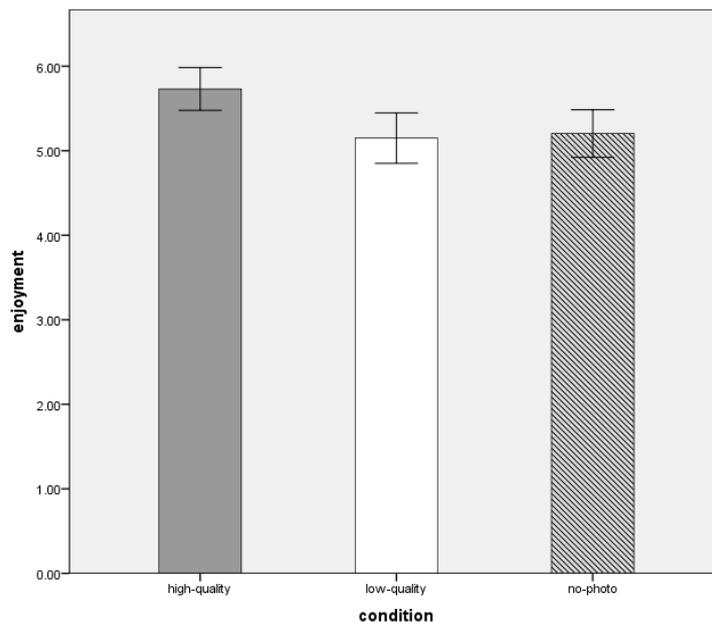


Figure 1. Enjoyment between three conditions in Study 2. Error bars represent  $\pm 1$  SE.

#### 4.4 Discussion

Study 2 replicates the conclusions of study 1 and verifies H2, indicating that high-quality photographs can improve people's positive evaluation of experiences, while low-quality photographs fail and have no effect. As we mentioned before, self-enhancement biases make people willing to accept the information transmitted by high-quality photos, and thus reworking memories based on high-quality photo content. Nevertheless, the information passed by the low-quality photos is ignored.

### 5. General Discussion

Experiences are worth to be remembered, and photos can serve as eternal recorder and valuable retrieval cues to relive the experiences. It does matter to understand whether a photo will exert an influence on experiences and how this happens. Empirical evidence from two experiments confirms that when people use photos to relive their experiences, under the motivation of self-enhancement, the influence of high-quality photos is accepted, and thus the evaluation of post-event experiences is improved; while the impact of low-quality photos is rejected.

Most of the previous researches focused on the impact of photo taking on memory accuracy or enjoyment of current experiences, not the post evaluation of original experiences; or the photo/photographing behavior is treated as a unified whole, meaning that the researches on the photo attributes are obviously missing. Our findings are the first to document how the quality of photos can alter post original evaluations of experiences.

#### 5.1 Substantive Implications

The present research offers several novel insights for consumer research and provides a theoretical basis for certain business practices. Photo-sharing applications like Instagram, LOFTER, Nice and webs such as Mafengwo.com can take the following as references.

*a. Encourage consumers to take photos during consumption or sightseeing*

Since we already have known that high quality photos can enhance the evaluation of the original experience when reviewing experiences, thus it is reasonable to speculate that people will be triggered to

experience again. In case of noisy or out of some reasons, some restaurants or attractions forbid people from taking photos. However, now we are confident to say it is not wise. Creating photo-taking atmosphere, planning a popular photo-taking point or providing photo props for customers will benefit enterprises.

***b. Encourage people to upload and share high-quality photos to social network applications or websites***

With the advanced development and enormous functions of social platforms, photos are convenient to upload and easy to review. When people are revisiting high photos of their own, they often get a sense of satisfaction and pleasure. If a website or application can become the database to store high-quality photos or a medium for revisiting photos, people will unconsciously establish a connection with the website or application and add stickiness to the site. That's why we say that websites should help people upload photos more easily and encourage people to upload high-quality photos through a variety of tools.

***c. Use technology such as LBS to increase the likelihood of people reviewing photos***

The documents show that people have great enthusiasm for taking photos but rarely revisit photos<sup>[15]</sup>. Many platforms, such as Qzone, now have recognized the value of reviewing photos. We believe that platforms like Meituan.com, Ctrip.com, Mafengwo.com, which use photos as an important carrier to attract customers can integrate various technologies such as LBS to help consumers to review their high-quality photos. In this way, the customer's desire to re-experience is stimulated and secondary consumption is promoted.

## **5.2 Future Research**

In the remainder of this section, we suggest directions for future research.

***a. The person related to photos vs. photo viewers***

This paper cares about the impact of the quality of photos on certain person related to photos. But we know that, sometimes when people browse photos taken by someone else, especially those tourist photos or food photos posted on the website, they may be impressed by photos' content, and choose to experience the same thing. Therefore, future research perspective can be transformed to study what impact may early exposure of other people' photos (friends or relative, idols, Internet celebrity) with different quality on the consumer's following experience.

***b. The interval time***

One reason for our effect is the dilution of people's memory. In this case, when people look back at the photos taken at the time, the photos are used as a cue, the process of people's memory reorganization or distortion is affected by photos of different quality. Therefore, we guess that the longer the elapsed time after the experience, the greater the effect which different quality photos can play. When the interval time is long enough, people can't rely on the impression of the original experience, low-quality photos can reduce people's evaluation of the original experience. Future research can be considered to explore this.

***c. Timing***

Whether the timing of photos entering people's recall will lead to different results? We suspect that if people have been exposed to other memory cues or have already started to recall before they see photos, the first occurrence may have taken over the mind, thus the impact of photo quality on the memory processing process may be weakened or dissipate.

***d. Mix of different quality photos or the number of photos***

In our experiments, participants were shown photos of single quality, i.e., all of high quality or all of low quality. What will happen if different quality photos are mixed? What will happen if the proportion of photos of different quality changes? These questions are worthy of further exploration in future experiments.

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### Appendix

In both pretests, we found significant differences between scores of each photo in one group. (see Table1. & Table 2.)

**Table 1. Descriptive Statistics results of pretest in study 1**

Photo groups of study 1	High-quality photos (N=57)	Medium-quality photos (N=57)	Low-quality photos (N=57)
1-1	5.75	4.23	2.37
1-2	5.88	3.63	3.09
1-3	5.23	3.79	2.23
1-4	5.93	3.63	2.16
1-5	5.77	3.45	2.26

**Table 2. Descriptive Statistics results of pretest in study 2**

Photo groups of study 2	High-quality photos (N=54)	Medium-quality photos (N=54)	Low-quality photos (N=54)
2-1	6.31	4.76	2.76
2-2	5.98	4.67	2.52
2-3	6.17	4.61	2.46
2-4	5.89	4.94	2.56
2-5	5.87	4.43	2.31
2-6	6.50	4.59	2.41