DIFFERENCES IN IMPRESSION EVALUATIONS BETWEEN PHOTOGRAPHIC AND ACTUAL CAFE FACADES : FOCUSED ON EASE OF ENTERING CAFE

DIFFERENCES IN IMPRESSION EVALUATIONS BETWEEN PHOTOGRAPHIC AND ACTUAL CAFÉ FACADES -FOCUSED ON EASE OF ENTERING CAFÉ-

Shohei Kawatsu[1]* and Yoshihiro Kametani[2]

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Abstract

Café facades include various elements, such as shape, material, and composition, and the combination of these elements influence visitor impressions. One of the most important requirements in café planning is that the façade appears approachable and attractive. The importance of "ease of entering" remains unclear, however.

Photographs of cafés are shown on websites and in magazines, and these photographs sometimes give readers different impressions than visiting the actual cafés. Some visitors are disappointed at the gap between the impression they got from the photograph and that of the actual café façade. This arises because much more information about the actual atmosphere can be gathered when a café is visited in person.

In this context, we conducted impression evaluation experiments on photographic and actual café facades using semantic differential techniques in order to identify the elements that influence the ease of entering.

1. Introduction

Nakazaki has a history of nearly one hundred years, and is currently a mixture of old and new buildings. In addition, there are an increasing number of people renovating warehouses and unoccupied houses for use as cafés, retail stores, and galleries. The shops that face the streets have a variety of designs and are seen by many. Since the façades of these cafés can be said to constitute a landscape, it is important to consider their design.

In this study, by visiting cafés and by viewing photographs of them, and then evaluating the visitor impressions of each by the semantic differential method, we clarified the differences in the evaluations so as to understand which elements are strongly involved. We subsequently investigated and analyzed the elements that influence the ease of entering.

1 Graduate Student, Department of Architecture, Faculty of Environmental and Urban Engineering, Kansai University

2 Professor, Department of Architecture, Faculty of Environmental and Urban Engineering, Kansai University

* Correspondence to: Shohei Kawatsu, Department of Architecture, Kansai University, Suita, Osaka 564-8680, Japan. E-mail:xiangpingchuanjin@gmail.com

2. Outline of survey

2.1 Survey period

The survey was conducted in January and February 2017.

2.2 Survey areas

The survey areas were located in Nakazaki, Osaka Prefecture, Japan, where a variety of café facades can be observed (Fig. 1).

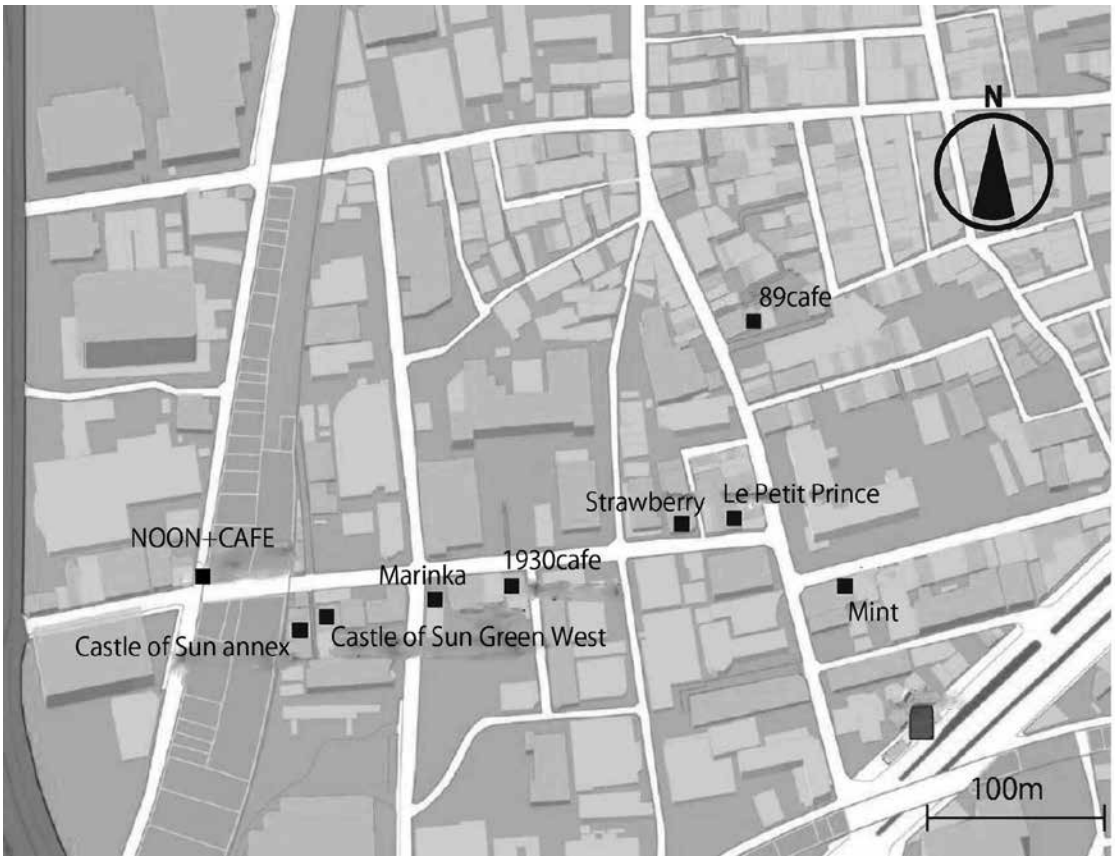

Fig. 1 Survey areas

2.3 Cafés

We selected nine shops from among many. Based on the cafés' facade components, we focused on factors that influenced the evaluation (Figs. 2～10).

2.4 Photographs

We photographed the first floor facing the road. The photograph distance ratio was 0.67, which is the smallest value of the ratio (width of elevation/width of road) facing the road of the café we selected. The photograph position was obtained by multiplying the width of the elevation of all cafés by 0.67. The photograph height was 150 cm, which is the height of the average line of sight from the ground. The viewing angle was 74°, the photograph angle was 0°, and the photograph elevation angle was 0°.

Fig. 2 NOON+CAFE

Fig. 3 Castle of Sun annex

Fig. 4 Castle of Sun Green West

Fig. 5 Marinka

Fig. 6 1930cafe

Fig. 7 Strawberry

Fig. 8 Le Petit Prince

Fig. 9 Minto

Fig. 10 89cafe

2.5 Subjects

Subjects were 60 students from the architecture department who have normal color vision and ranged in age from 19 to 29 years old.

2.6 Survey method

First, we compared the average value and the standard deviation of the impression evaluations from actually visiting a café (hereinafter referred to as the field) and from the impression evaluation that had been gathered using a photograph (hereinafter referred to as the photograph).

Second, factor analysis of the impression evaluation results were performed using the maximum likelihood method. We performed a varimax rotation and interpreted the results using it.

Finally, in order to clarify which of the factors identified by factor analysis affect the comprehensive evaluation of the café facade, each facade was evaluated as "difficult to enter – easy to enter." Multiple regression analysis was performed using the factor scores of four factors obtained by analysis as explanatory variables. We used the regression method to estimate the factor scores.

3. Survey results and considerations

3.1 Impression evaluation between photographic and actual café façade

We compared the average value and the standard deviation of the impression evaluation in the field and from the photograph. For comparison, the average value and the standard deviation of the impression evaluation results of each are summarized in the same graph (Figs. 11～19).

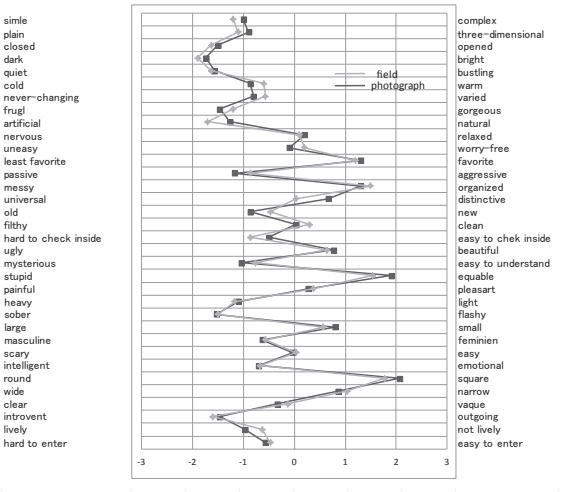

Fig. 11 NOON+CAFE

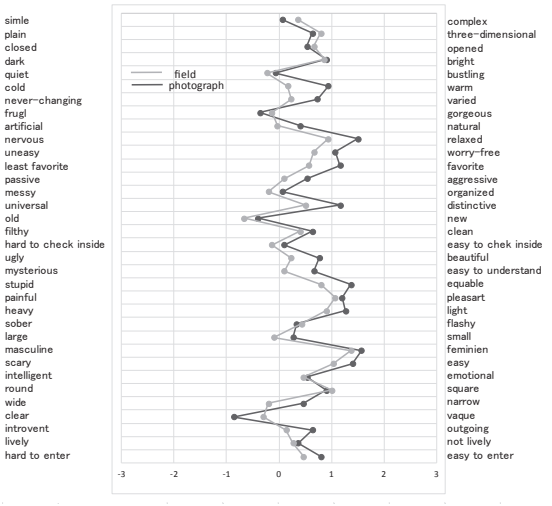

Fig. 12 Castle of Sun annex

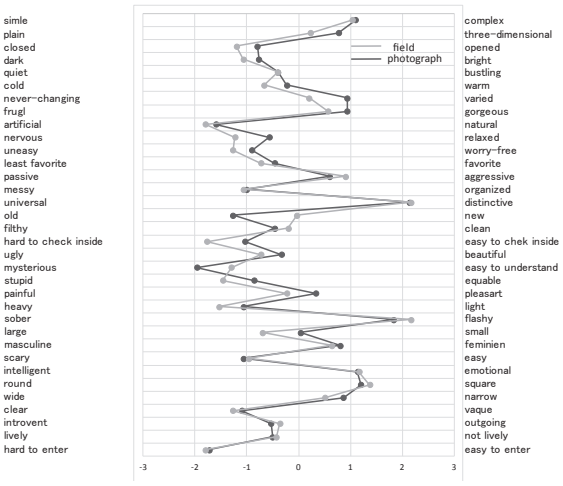

Fig. 13 Castle of Sun Green West

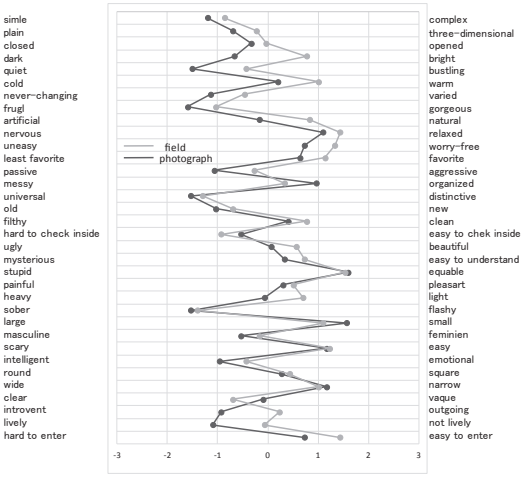

Fig. 14 Marinka

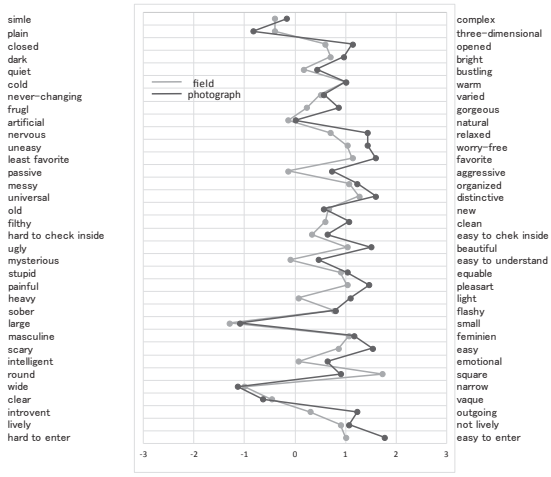

Fig. 15 1930cafe

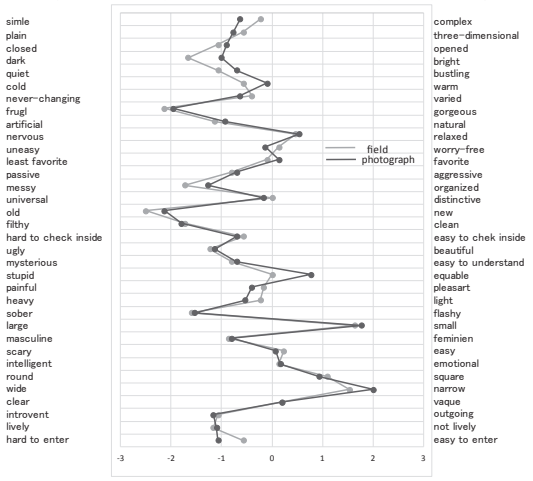

Fig. 16 Strawberry

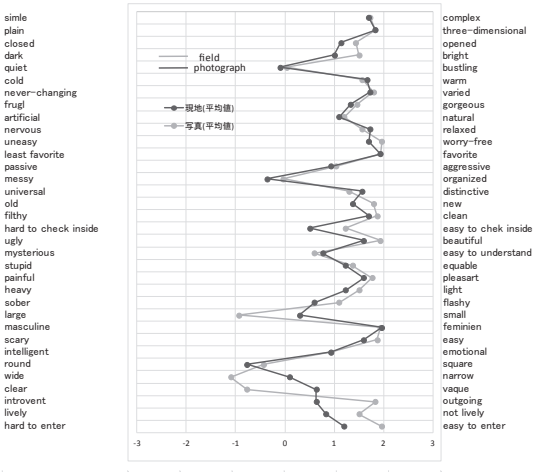

Fig. 17 Le Petit Prince

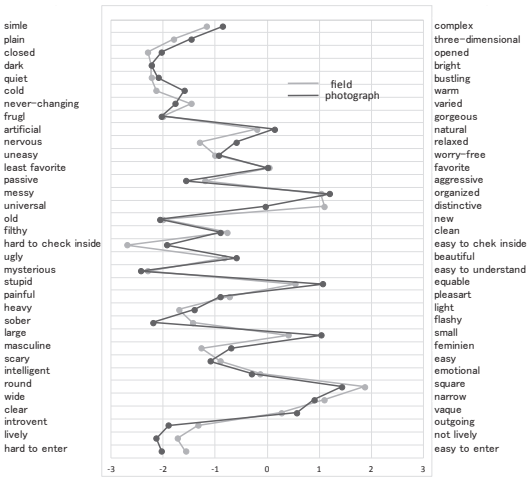

Fig. 18 Minto

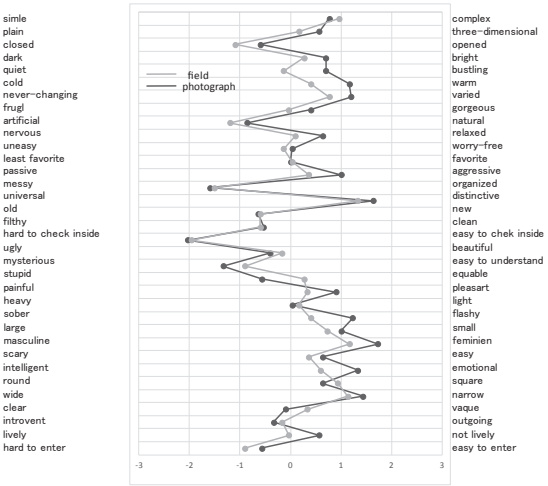

Fig. 19 89cafe

3.2 Summary of average value and standard deviation results

1. The results of the impression evaluation of the field and the photograph were found to be approximately the same when comparing the graph of the average evaluation values.

2. Differences in evaluation values were largely caused by pairs of adjectives and separated. Those with large differences were caused by factors that can only be felt in the field, such as "old – new," "lively – vibrant," etc. Most of the same things were noticeable visual elements, such as "modest – flashy," "lack of change – varied," and "nervous – relaxed," in both the field and the photograph.

3.3 Factor analysis of impression evaluation results by field and photograph

3.3.1 Field

Factor analysis of the impression evaluation results was carried out using the maximum likelihood method. We also performed a varimax rotation and interpreted the results using it.

For each factor loading amount after the varimax rotation, the absolute value was 0.4 or less in all four factors, the absolute value of the load amount to the two or more factors was large, the value was close, and the value of the commonality was markedly low, except for three items: "cold – warm," "round – square," "clear – vague."

Next, we excluded the above three items and conducted a second factor analysis. After varimax rotation, 70% or more of the value of the item with the largest factor load amount in each factor was selected as a valid item. Even if it was 70% or more of the factor load amount of the largest item, the other factors were not targeted if the factor load amount was large.

Based on the characteristics of the adjective pair highly correlated with each factor, we defined the first factor as the "eccentric factor," the second as the "emotional factor," the third as the "negative and positive factor," and the fourth as the "scale factor" (Fig. 20).

		factor			
		1	2	3	4
the first factor as eccentoric factor	sober-flashy	.786	−.033	.292	.210
	never-changing-varied	.784	.208	.202	−.076
	frugal-gorgeous	.743	.224	.149	.257
	simple-complex	.700	−.011	.010	.022
	passive-aggressive	.630	.075	.460	.085
	plain -three dimensional	.610	.124	.117	−.001
	universal-distinctive	.598	.024	−.005	.173
the second factor as emotional factor	least favorite-favorite	.020	.787	.133	.063
	ugly-beautiful	.225	.728	.073	.248
	filthy-clean	.199	.668	.199	.245
	uneasy-worry free	.045	.630	.370	.043
	scary-easy	.073	.622	.428	−.084
	stupid-equable	−.526	.565	−.066	.020
the third factor as negative and pozitive factor	closed-opened	.269	.339	.643	.213
	introvent-outgoing	.304	.168	.641	.222
	heavy-light	.147	.421	.638	.020
	dark-bright	.368	.290	.631	.072
	lively- not lively	.462	.185	.616	.146
	mysterious-easy to understand	−.035	.407	.585	.063
	quiet-bustling	.404	−.070	.572	.064
the fourth factor as scale factor	large-small	−.020	−.195	−.165	−.791
	wide-narrow	−.273	.000	−.157	−.765

Fig.20 Factor analyis by field

In order to clarify which factors obtained by factor analysis affect the comprehensive evaluation of the café facade, each facade was evaluated as "difficult to enter – easy to enter." Multiple regression analysis was performed using the factor scores of four factors obtained by analysis as explanatory variables. We used the regression method to estimate the factor scores.

		factor				
		1	2	3	4	5
the first factor as grasping factor	heavy-light	.707	.140	.229	.108	.010
	nervous-relaxed	.700	-.009	.199	.127	-.034
	uneasy-worry free	.695	-.010	.203	.296	.026
	scary-easy	.667	.014	.276	.253	.017
	closed-opened	.646	.235	.244	.096	.162
	mysterious-easy to understand	.608	.047	.295	.171	.009
	cold-warm	.550	.193	.519	.147	.018
	painfui-plesant	.534	.212	.412	.392	.042
	hard to check inside-easy to check inside	.529	.159	.127	.099	.254
	least favorite-favorite	.529	-.049	.116	.522	.046
	dark-bright	.500	.297	.476	.155	.059
the second factor as unusual factor	simple-complex	.097	.737	.058	-.092	.039
	frugal-gorgeous	.149	.671	.302	.223	.276
	sober-flashy	-.060	.643	.356	.135	.287
	plain -three dimensional	.322	.635	.010	-.016	.057
	never-changing-varied	.302	.579	.222	.004	.104
	passive-aggressive	.065	.552	.443	.040	.081
the third factor as activity factor	quiet-bustling	.251	.289	.649	.002	.040
	lively- not lively	.342	.296	.621	.287	.165
the fourth factor as resilience factor	ugly-beautiful	.448	.171	.101	.735	.081
	filthy-clean	.313	.166	.172	.715	.120
	messy-clear	.013	-.398	-.057	.579	.186
the fifth factor as scale factor	large-small	.028	-.287	-.137	-.138	-.780
	wide-narrow	-.285	-.166	-.025	-.154	-.711

Fig.21 Factor analysis by photograph

3.3.2 Photograph

We conducted a factor analysis of the impression evaluation in the same way as we did in the field. Under the same conditions, we excluded the three items "gentle – gentle," "intelligent – emotional," "clear – blurred," and we conducted a second factor analysis.

Based on the features of pairs of adjectives that were highly correlated with each factor, we defined the first factor as the "grasping factor,' the second as the "unusual factor," the third as the "activity factor," the fourth as the "resilience factor," and the fifth as the "scale factor" (Fig. 21).

We conducted multiple regression analysis as in the field case.

4. Conclusions

1. Factors that were obtained in both the field and the photograph were the "unusual factor" and the "scale factor." Based on the values of the standard partial regression coefficients, the "fear effect factor" shows that the influence on the ease of entering is extremely small for both the site and the photograph.

2. Regarding the "scale factor," it is evident that the facade in the field has more influence on ease of entering. It can be said that visitors can more easily grasp the scale, and the fact that this is not transmitted in photographs has an influence.

3. The "negative and positive factor" and "grasping factor" show the highest standard partial regression coefficients in both the site and the photograph and, focusing on other than the common adjective pair, explain the "negative and positive factor." It is understood that cafés that are open or have a cheerful atmosphere are more emphasized.

4. Looking at the pair of adjectives explaining the "grasping factor," in the case of photographs, the impression felt when actually using the café is more important.

5. The "resilience factor" and "unusual factor" extracted in the case of looking at the facade in the photograph are the "emotional factor" and "eccentric factor," and a "common positive adjective" is extracted when the facade is viewed locally. On the basis of this and the standard partial regression coefficients, when judging the ease of entering by looking at the facade of the photograph, it can be said that emphasis is not placed on the vibrancy of the space and the cleanliness and beauty of the building compared to when looking at the facade in the field.

References

1) Survey and analysis method for building and city planning Edn. (1998).