

## **The Implication of Interpretive Inquiry for Empirical Studies on Color Meaning: A Symbolic Interactionist Approach to Color Perception in Healthcare**

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### **ABSTRACT**

Since color is fundamentally informative, people learn about and interpret their surroundings while perceiving environmental colors. Research has found the close relationship between people's backgrounds and life-experiences and their perception of and emotional responses to environmental colors. Due to the subjective nature of individuals' color-association and –interpretation, researchers have adopted various empirical methods and tools to define color meanings and suggest image scales for color application. Based on Blumer's framework (1969) of symbolic interactionism, this study examines the significance of culture in the ways individuals interpret and establish the meaning of color in healthcare environments. In conducting research on an ambiguous subject like color meanings and terms, it is important to define the concept in respondents' words (Sommer & Sommer, 2002). This study also discusses how interpretive inquiry may inform empirical color research, with regards to the debate whether the researchers adequately justify the participants' intellectual level and linguistic sensitivity to obtain reliable data and findings. The findings showed that the subjects' concepts of healthcare color were based on their personal experiences and cultural backgrounds. The meanings of healthcare color that the participants established appeared as abstract concepts: care/warmness, stability, vitality, hygiene status, comfort from familiarity, professionalism, and users' characteristics.

**KEYWORDS:** Color Meaning, Healthcare, Symbolic Interactionism

### **INTRODUCTION**

Due to the subjective nature of color perception, researchers have developed, tested, and adopted various methods and tools to determine color terms and scales. Despite that studies (e.g., Park & Guerin, 2002) have found the close relationship between culture and color associations, color meanings have often been over-generalized and assumed universal in various realms including design and marketing. Such an issue has been addressed in academic criticisms—e.g., Lucy (1997) and Saunders (2000)—on Universalist color theories and systems such as Berlin and Kay's *Basic Color Terms* and Munsell Color System that have often been treated and referred as 'standards' in many color studies. It is, indeed, a quite dangerous assumption that such referential labeling of colors in a certain language can represent all linguistic, cultural, and environmental contexts. By the same token, it is questionable that the studies conducted using data collected in specific regions several decades ago (e.g., Kobayashi's color image scale published in 1981) are still reliable today and universally applicable regardless of the contexts. Therefore, certain *prima facie* studies may need to be scrutinized, re-examined and reconsidered.

Conducting research on color in contemporary healthcare environments is particularly challenging due to the diverse occupants and the complex contexts. This study suggests how the construct—the self, objects, social interaction, and joint action—of symbolic interactionism and discusses they way healthcare occupants interpret colors in the built settings.

### **THEORY**

There have been academic debates on the suitability of empirical and interpretive paradigms and the methodical strategies to color research on meanings. The literature shows that there is common ground between the two methodological stances, on which symbolic interactionism may stand. Symbolic

interactionism is concerned with how people establish meanings of things—abstract, physical and social *objects*—through human-human and human-environment interactions in the social and the cultural contexts including norms, values, structure, and roles (Blumenr, 1969; Kwon, 2010; Stryker, 2002). Symbolic interactionism stems from pragmatism and phenomenology that is the study of conscious human experience, which is often considered an extreme form of interpretive inquiry. Interactionist stance rooted in phenomenology is that, to establish or understand the meanings of our surroundings, it is essential to look into people’s everyday life as they experience it. Symbolic interactionists view society as an interactive relation than a system or a process. Due to such aspects of symbolic interactionism, many opponents are skeptical about its objectiveness despite that the main application of the symbolic interaction framework in clinical studies is considered empirical.

Among symbolic interactionists, Blumer suggested that people establishes the meanings of a physical setting while constantly interacting with the environment that includes themselves (Figure 1). Blumer’s framework of symbolic interactionism has been discussed in a small number of interior design studies (e.g., Kwon, 2010 and Nussbaumer, 2009). In interior environments, people are always part of the context, not just observers or passersby. Cultural contexts that, in fact, influence people’s interpretation of their surroundings are termed “*joint action*” in Blumer’s discussion.

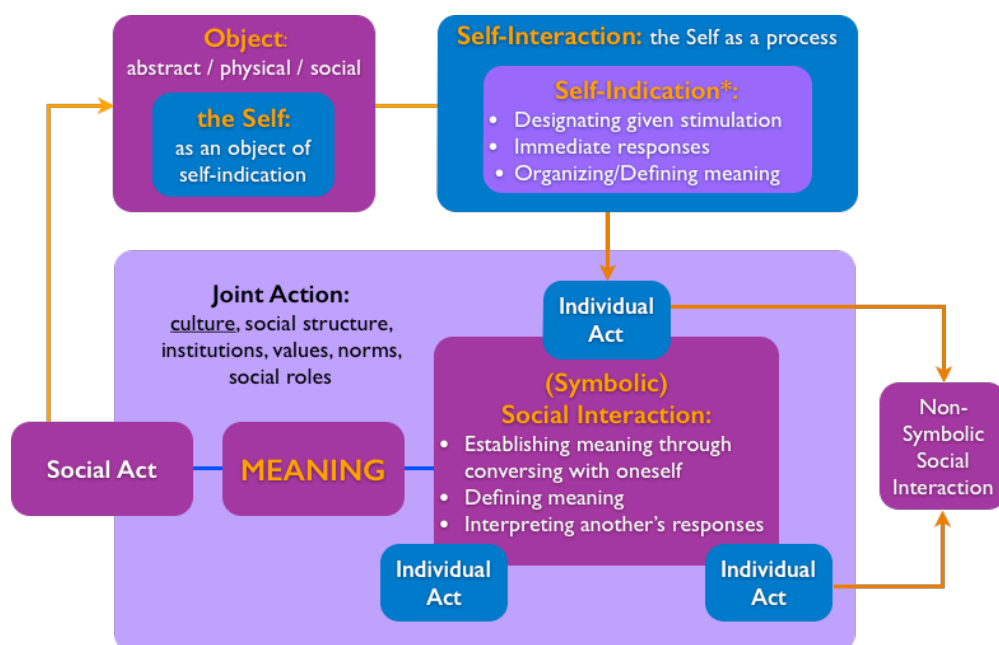


Figure 1: Theoretical Model of Symbolic Interactionism (Kwon, 2016, p. 37).

Architectural sociologists, while referring to Blumer’s symbolic interactionism as general premises of symbolic interactionism, have often referred Erving Goffman’s notion as most suitable to investigation of meanings of built environments (Smith & Bungi, 2006) and highlighted that social interaction can influence on the cultural meaning of architectural objects. However, culture as outcomes of *joint action* is not sufficiently explained in Goffman’s (1959) work. Rather, Goffman seems to distinguish “performer (expresser)” from “audience (observer)” and defined buildings as “status symbols”, expressers. Due to the discrepancy of Goffman’s perspective, this study adopted Blumer’s symbolic interactionism as the theoretical framework.

## PROCEDURES

Based on Blumer’s symbolic interactionism, the researcher developed a theoretical model (Figure 1) that shows the mechanism of symbolic interaction. Based on the presupposition that color in healthcare environments is memorable, the research procedures involved in-depth interviews using a semi-structured interview questionnaire adhering to the theoretical model. A color palette instrument was also used. The color palettes were unlabeled to prevent interviewees’ responses from being influenced by any implied messages

that might be apparent in textual labels. The sample consisted of 13 female and 13 male Korean-first-language speakers living in the United States and ranging in age from 25 to 39. All participants had no academic or professional background in design and no immediately family member in the fields related to interior design or architecture. Individuals under medical treatments at the point of interview were excluded from the sample. Since this study aimed to investigate the significance of cultural influence in meaning, it focused on one ethnic group instead of multiple cultures in comparison.

The interviews focused on each participant's experience during a single visit to a healthcare facility. To obtain sufficiently detailed data, each interview lasted for one hour. Of the 26 interview data collected, 24 were qualified and organized by the type of visit: self /well-patient (54.2%), others/well-patient (12.5%), self/ill-patient (12.5%), others/ill-patient (12.5%), and business (8.3%). The age distribution was: 4 (16.7%) in the age group 25-29, 12 (50%) in 30-34, and 8 (33.3%) in 35-39. The interview data were recorded, transcribed, and analyzed in a phenomenological manner. Due to the lexical sensitivity of people's interpretation of ambiguous concepts, the use of languages was carefully planned and determined throughout the process of this study. The research model was developed in English, the interview questionnaire was prepared in English and Korean, the interviews and data analysis were conducted in Korean, and the findings were translated back to English to complete the meaning-model, Figure 2. *NVivo* Korean version was used for the qualitative data analysis, to obtain most accurate results.

## RESULTS AND DISCUSSION

The findings of the study showed that color meanings are not intrinsic to objects but affected by environmental, cultural, and social context. The respondents conceived healthcare 'color' an abstract, physical, and social *object*. The interviewees described the healthcare color as a comprehensive whole rather than individual colors. The meanings that the interviewees assigned to color in healthcare are varied, depending on their cultural backgrounds and past experiences. In the interviewees' experiences, color per se was significantly less memorable than lighting conditions in the healthcare facilities they visited. All interviewees who talked about their well-patient and business visits were able to provide detailed descriptions of colors of the settings while the respondents who were ill-patient visitors remembered lighting conditions more clearly than colors. The length of the subject's stay in a specific area did not seem to affect her/his memories.

The meanings of healthcare color that the interview participants established appeared as abstract concepts such as care/warmness, stability, vitality, hygiene, comfort from familiarity, professionalism, and user-characteristics.

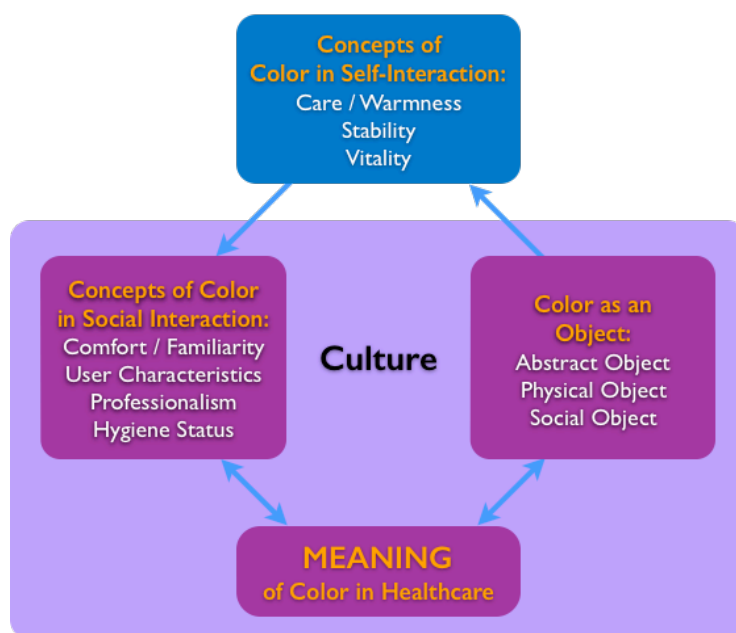


Figure 2: Meaning of Healthcare Color.

As shown in Figure 2, it is clear that those concepts are established in and associated with two different contexts, self-interaction and social interaction: color as an abstract object appeared to be related to self-interaction, and color as a physical and as a social object was related to social interaction. The interviewees' conception of healthcare (HC) colors appeared as follows:

- 1) HC color as an abstract object – care, stability, and vitality
- 2) HC color as a physical object – hygiene status
- 3) HC color as a social object – professionalism, comfort from familiarity, and users' characteristics

Interestingly, only one of 26 participants mentioned about so-called 'healing colors' during the interview, and none of the 26 interpreted those colors used in color palettes as referents of 'healing', unlike how they are assumed in healthcare or related marketing. Although certain colors and color schemes have been suggested as healing colors to be used in hospitals, this study found that the interviewees did not perceive those colors such. Depending on other environmental factors and their conditions, the respondents interpreted the same colors and color palette differently.

It seems important that, when researchers design the semantic differential to measure the connotative meaning of concepts, they must assure that the terms are determined through adequately designed, interpretive research, not by arbitrary choice of terms assumed typical or universal. As shown in this study, certain concepts people establish in a space like healthcare are not suited to polar adjective pairs.

## CONCLUSION

Color planning in sensitive environments like hospitals and medical clinics has increasingly become evidence-based. Color in healthcare environments can be a positive distraction or a stressor depending on the perceiver's interpretation. Due to their body condition, healthcare occupants appear to perceive and interpret the interior color differently from how others view colors in a mundane circumstance or place. In addition, since spatial experience is multisensory and multimodal, an individual's color perception in a built setting is affected by various environmental factors such as light, noise, temperature, and volume of space. Due to the multimodality of human experience, plain color swatches can neither successfully measure nor persuasively explain people's color perception in an environmental setting.

When it comes to the inquiry on color interpretation, on one hand, it is important for researchers to conduct research using empirical methods and a large number of quantifiable data to develop general guidelines for color application in everyday contexts. On the other hand, the 'fuzzy side' of people's color interpretation cannot be successfully revealed without interpretive exploration that seeks the connotative meanings. Although the empirical cycle—observation, deduction, reduction, testing, and evaluating—is an effective research process on certain topics, it might result in undesirable generalization in certain cases, especially when started with arbitrary assumptions.

This study was meaningful as it showed the need for reconsideration of conventional research approaches to color meanings in healthcare and the adoption of dated color terms. Although it might take much time and rigorous efforts, research on healthcare color can successfully uncover the meanings of the environmental factors in the interplay between empirical examination and interpretive exploration that may be reciprocal in building the body of knowledge.

## REFERENCES

- [1] Blumer, H. 1969. *Symbolic interactionism: perspective and method*. Berkeley, CA: University of California Press.
- [2] Kwon, J. 2016. *Meaning, concept, and design thinking*, International Journal of Design Education 10(4), 35-43.
- [3] Lucy, J. A. 1997. The linguistics of "color". In C. L. Hardin and L. Maffi (eds.), *Color categories in thought and language*, pp. 320-346. Cambridge University Press.
- [4] Park, Y. and Guerin, D. 2002. *Meaning and preference of interior color palettes among four cultures*. Journal of Interior Design, 28(1), 27-39.
- [5] Saunders, B. 2000. *Revisiting basic color terms*. Journal of the Royal Anthropological Institute 6, 81–99.
- [6] Sommer, R., & Sommer, B. 2002. *A practical guide to behavioral research: tools and techniques* (5<sup>th</sup> ed.). Oxford University Press.