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Title	ユーザーの社会的感情に着目したデザイン知に関する研究
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Citation	
Issue Date	2021-12
Type	Thesis or Dissertation
Text version	ETD
URL	http://hdl.handle.net/10119/17595
Rights	
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学　位　の　種　類	博士（知識科学）
学　位　記　番　号	博知第 295 号
学位授与年月日	令和 3 年 12 月 24 日
論　文　題　目	ユーザーの社会的感情に着目したデザイン知に関する研究
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論文の内容の要旨

The purpose of this research is to deepen the understanding of design knowledge, and to attempt to clarify it. By what part of design do people feel moved? In this research, we focused on social emotions and examined their structure to deepen our understanding of the invisible emotions deep inside the user's mind: tacit knowledge needs. Within the current state of affluence in modern society, there are users who are materially affluent, but still do not feel truly satisfied in their minds. People’s intrinsic affluence is not always proportional to their material affluence or time. One of the reasons for users’ lack of satisfaction, is a discrepancy between users and the providers of products, such as companies. In this research, we hypothesized that designers who can embody the tangible and intangible needs of users, hold the key to regaining empathy between creator and users. Therefore, we tried to elucidate design knowledge by conducting two different studies and analyzing them comprehensively. Study 1 is a study to understand users, and Study 2 is a study to understand designers. In Study 1, after a preliminary survey and questionnaire, a sample suitable to understand the user's *kansei* (sensibilities) and desires was created. Then, using the sample, field demonstrations were conducted at four venues in the actual market. In the field demonstration, *kansei* / preference surveys and interviews were conducted along with user ethnographies (behavior observation). After that, a behavioral / psychological survey questionnaire and follow-up interviews were conducted to analyze the tacit knowledge needs of users. In Study 2, we hypothesized that good designers understand the tacit knowledge needs of users and can appeal to their *kansei*. In order to quantify their knowledge and share it as explicit knowledge, we conducted ethnographic interviews with four well-known designers who are active around the world. First, a questionnaire on the emotions of the designers was conducted, and based on the results, the content of the questions was examined for the ethnographic interview. Four prominent designers were selected by setting selection conditions, and ethnographic interviews with these four designers were conducted in two stages. The special "place" of conversation environment peculiar to network communication has made it possible to acquire various data that is difficult to acquire otherwise. The interviews were semi-structured, in the form of discourse interviews. The research results were analyzed to deepen the designers' introspection. As a result of comprehensive analysis and consideration of the two studies, it became clear that social emotions are greatly involved in the purchasing behavior and decisions of users. Social emotions are emotions for reconciliation in society, such as jealousy, envy, the feeling of being observed by others, and empathy for others. For example, dressing up (an external factor) can sometimes inspire users to grow mentally, due to its ability to stimulate their sensibilities and increase their knowledge. At the same time, social emotions always influence actions and decisions, and there arises conflict with emotions such as users' own personal values, preferences, and commitments. Users make decisions while balancing this conflict when they purchase things. Designers' tireless effort, learning, and conscious training to be aware, facilitate the power to innovate. From these unexpected design proposals, it was found that users experience various new discoveries and awareness, fresh surprises and even, in the best sense, betrayal. It turns out that users can also gain new awareness by encountering the creativity of designers who are constantly training to be consciously aware. It was found that users who had these new experiences and impressions were eventually enhanced through the creativity received from the designers. These

stages of *kansei* growth are schematized as the *Kansei* Growth Model. Design products are things, but users can ascribe design products more value than mere things. These values include "triggers that promote self-growth," "amulets," and "empathy to live better." In addition, it was found that mature users who had achieved some degree of mental growth, and had experienced social status, economic and spiritual achievement, tended to be less dependent on things. This result is shown as an evolution of the *Kansei* Growth Model. This evolution is the SEMGG model, which expresses the relationship between social emotion, mental growth, and goods. This research indicates that good designers make design suggestions with the user's future in mind, rather than to instigate or inspire users to make a purchase. In other words, a good designer is one who can make design suggestions that promote and support user growth. When users come into contact with a good designer's philosophy and receive suggestions, they are impressed and moved by the difference. And as a result, they find that they have empathized with the designer’s creation.

Keywords: Design knowledge, Tacit knowledge needs, Social emotions, Empathy, SEMGG Model

論文審査の結果の要旨

本博士論文は、ユーザーとデザイナーの関係性に着目し、より良い関係性がどのようなものであり、また、それがどのように求められるかという問いを追究し、複数の異なる研究アプローチを重ね合わせ、探索的に論じている。

具体的には、伝統工芸を展開したファッション分野のデザインを対象にしたユーザー研究（加賀友禅についてギャラリー展示とユーザーのニーズ発見のためのインタビュー）、及び、幅広い分野のデザイナーへの調査（プロのデザイナー4 名にエスノグラフィックインタビュー）を行い、さらに、ビデオ通信を用いた半構造化インタビューを実施し、定性的評価と、その結果を基に質的に考究し、SEMGG モデルとして視覚的に提示した。

実際にデザイン作品を展示・販売する現場をしつらえ、ユーザーとのコミュニケーションを行う過程で観察することは、研究者自らが当該分野で培ってきた経験を基盤があるゆえに実施できることであり、その方法によって観察することができた「社会的感情」の影響を手掛かりとし、意識の変容を階層化した成長モデルとして示したことや、ユーザーのニーズに対するデザイナーの気づきをとらえ、それを深掘りすることで、より良いユーザーとデザイナーの関係性とは、相互に成長を高めあう関係であると結論づけたことは、従来のデザイン学でのユーザーのニーズ調査では示唆されていながら十分な根拠が示されていなかったものであり、知識科学による研究によって得られた知見として価値がある。

論考の構成や論理的な説明力において不十分さが残るが、提示された社会感情の階層モデルは独創性が認められ、かつ、デザイン諸分野への適応性が可能であり、本研究によって示された新しい知見として社会的に役立つと考えられる。特に、ファッションデザイン分野で重視されるブランド展開への有用性があると評価できる。今日、消費社会は多様な価値観が複雑に交差しており、デザイナーが市場の潜在的なニーズを察知することは困難となっていることから、本研究の成果であるモデルが意味することはデザイン開発の手掛かりとなると見込まれる。論文題目については、研究の価値をより明確に示すために、改題することが望ましい。

以上、本論文は、よりよいユーザーとデザイナーの関係について調査・分析・モデル化を行い、考察したものであり、学術的に貢献するところが大きい。よって博士（知識科学）の学位論文として十分価値あるものと認めた。