Explaining the Notion of Hermeneutic Phenomenology in Product Design

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Abstract
Problem Statmen: The hermeneutic phenomenology is the establishing of a relationship of Being. How these relations can be manifested in a human being in the world is one of the most important concerns of philosophers, including Heidegger - the famous German philosopher.

Purpose of the Study: This paper intends to provide an interpretation of phenomenology that can be considered and implemented in the design process. After fully description of hermeneutic phenomenology that is specifically identified with Heidegger’s ideas, we further clarify this notion by elucidating five certain steps from it that include: Temporality, Establishing a meaningful relationship with the triple extent of temporality, Establishing a relationship of Being between human and phenomena, Establishing the hermeneutical relationship, and Disclosedness.

Research Methodology: Then, through the case study method, we evaluate three sample products to interpret the steps extracted from this approach. In the following, by presenting a model, we illustrate the relationship between the phenomenological approach and the design process, the way it is applied, and its generalizability in the process. The triple extent of temporality (factuality, presence, and futurity) forms the central core of this model. Finally, we analyze another product to test the proposed model.

Conclusion: The result of this paper makes it clear that the phenomenological approach not only can use in product design, but also the case studies show that the use of this method has been able to influence on the success of the user’s interaction with the product during the industrial design history.

Keywords: Hermeneutic Phenomenology, Product Design, Temporality, Disclosedness, Presence.
Introduction

One of the philosophical milestones that underpinned the emergence of phenomenology in art was Hegel’s view. He believed that aesthetics could be a synonym of science in a specific definition. Also other classical and subjective phenomenologists of art regard aesthetics as science. A gap was created between phenomenologists with the advent of Heidegger. Heidegger does not look at phenomenology in a subjective way (unlike his professor, Edmund Husserl), but he uses it as a method of analyzing existence and considers hermeneutic and deconstruction as its fundamental principles (Khatami, 2013, 25). He first introduced the idea of hermeneutic phenomenology in his famous work Being and Time in 1927 (Embree, 1997, 28). The idea was borrowed by others, including Hans Gorg Gadamer, in the book of Truth and Method. Gadamer’s goal of proceeding to this issue was not to provide an interpretive method (as his professor, Martin Heidegger), but to reflect what is happening to our understanding (Høiseth & Keitsch, 2015, 34). In other words, there is no certainty in the essence of hermeneutic phenomenology, but it is about describing and interpreting human experience in the world. Also, this study does not seek absolute guidelines for this kind of process in solving design problems. Rather, it provides a description of phenomenology that can establish an existential relationship with the product world by applying it to the product design process.

Research Method

The research method in this article is qualitative analysis. This method has been used to derive specific steps from the concept of Heidegger’s hermeneutic phenomenology. In the following, some case studies are used to better explain these steps. In this regard, three products are selected and analyzed from different designers. Then, a model is presented that illustrates the relationship between this approach and the way it is applied to the product design process. Finally, a fourth product is evaluated for testing the proposed model.

The factors considered in selecting these products are their prominence in industrial design history as well as variations in the style, approach, and classification of the products. These factors help to get a better result about the pervasiveness of this view in product design. The “Carlton” Bookcase, the “Melodic” Kettle and the “ET66” Braun Calculator are the three products chosen for this purpose: The Carleton Bookcase was designed in the Memphis style by the Italian designer of the style, Ettore Sottsass. Kettle Melodic was designed by Richard Sapper who is a German designer in Italy that he works in the emotional design style of the Alessi company. The “ET66” calculator belongs to the Braun company and was designed by the German designer, Dieter Ramses. The style of this product is minimalism and based on the principles of good design. The fourth product, “Juicy Salif” lemon squeezer was designed by a French designer, Philip Stark, in the emotional design style.

Theoretical Framework and Literature Review

Some good studies have been done about the scope of phenomenology in various branches of design, including architecture. For example, the thesis “Being in the Architecture World, Temporal Interpretation of Architecture” (Dehghani, 2006) has used the concept of temporality in Heidegger’s thinking for criticizing Iranian desert architecture; Dehghani has shown that how the architecture can fit with the living experience of the people in the desert cities of Iran through phenomenological criticism. But phenomenological studies are very limited in the field of product design. An example in this regard is an article entitled “Phenomenology, a Framework for Participatory Design” (Frauenberger, Good & Bright, 2010) that in which the phenomenological approach is introduced as a tool for extracting ideas from the
output of the participants’ activity. In this article, a project was conducted with the participation of children with autism. The outputs of participation in the format of painting were used as a source of ideas for designing the learning environment for them. The phenomenological approach for analysis of the paintings has allowed the designers of the project to use the nature of the participants’ experiences as a source of inspiration for the project rather than focusing on the appearance of the work.

With these interpretations, it seems necessary that further study of this approach must be done in the field of product design. To this end, after discovering the hermeneutic phenomenology steps, it must be clear how to act phenomenologically in the process of designing a product. The results of this research will be as follows:

- Explaining and interpreting hermeneutic phenomenology and finding its foundations.
- Expressing the phenomenological perspective on product design by the case study method.
- Interpreting the phenomenological approaches in the design process by applying a model.

**The Meaning of Hermeneutic Phenomenology and its Relation to Product Design**

Since various philosophers apply the concept of phenomenology with many differentiations, it will be very difficult to provide a unified definition for it. For this reason, since in the present article the method is confined to Heidegger’s hermeneutical phenomenology, we are limited to defining this concept from Heidegger’s point of view. From this point of view, phenomenology cannot be regarded as a “position” or a “style”; rather, the term phenomenology primarily implies as a concept of “method” (Spiegelberg, 2013, 581). On the other hand, the basic issue in his phenomenology is the fundamental question of the meaning of existence and the problems that arise (Heidegger, 2013, 31). Therefore, this definition of phenomenology is the way that one defines the existence of human beings (Mostafavi, 2012, 49). According to Heidegger’s explanation of phenomenology, it means “speech of phenomena” or “self-expression of phenomena” - that is, allowing the phenomenon to be seen in the way it manifests itself through itself, which is ultimately for Heidegger, this is the command “Back to the things themselves” (Safian & Hosseini Manesh, 2014, 34). In other words, phenomenology is to allow something to manifest itself. The word “phenomenon” in this phrase is anything that has become apparent. That is, something that manifests itself directly (Ahmadi, 2002, 164-165). On the other hand, the term hermeneutic -as Heidegger uses it- is an interpretation of the non-mysterious realities of the real world, including the human being. The purpose of this interpretation is the mean of what is interpreting. Thus, interpretation requires that what is interpreting has meaning. On the other hand, this interpretation is based on some prejudices. So that, any interpretation of the everyday events relates to the kind of frameworks or presuppositions that encompass it. Thus hermeneutic employs methods that go beyond describing what is obvious and attempts to reveal hidden meanings through predictive measures (Spiegelberg, 2013, 584-586). Therefore, the purpose that Heidegger seeks to achieve through hermeneutichermeneutic phenomenology is the “Disclosedness” that he uses the Greek word “Aletheia” to refer to.

Now the question arises: what does “disclosedness” mean in the field of design? How does this “disclosedness” happen in the design of things? To understand the theme of disclosedness in design, first, we need to understand what does Heidegger want to be disclosedness and what closedness issues are the problem for him? In his view, the thing that is closedness and causes trouble is the Being of the being. Now we have to ask what is the meaning of Being? This is the question that Heidegger begins his famous book -Being and Time- with this and he brings up it as a fundamental question. Clearly, such a
controversial concept cannot be easily defined. But perhaps it can be said that Being means the need that there is for being something. In other words, the question we ask ourselves: why do I need to…? Or why is there a…? (Ahmadi, 2002, 182).

For explaining hermeneutic phenomenology and utilizing it in design, first, we need to get acquainted with Heidegger’s intellectual framework in dealing with phenomena. Heidegger has not introduced a clear path as his method in phenomenology. In fact, his definition of phenomenology is rooted in the essence of his ontology. Therefore, it is necessary to obtain an overview of his phenomenology through a road map (Fig. 1) which depicts his intellectual form. This road map illustrates the designer’s path to a phenomenological encounter with the world of things.

To explain this roadmap, we describe its phases, step by step. At each phase, some case studies are used as needed to provide some practical examples for explaining and matching the contents.

1. Temporality

The first step begins with the concept of temporality. We all have an inner understanding of time that is different from its conventional meaning. We can relate the present to the past experiences and predict the future. In fact, we are always living with a totality that we make with the past, present, and future.

Heidegger has such an understanding of time and looks at it from the view of linking these three extents together. He uses the word “Temporality” to point it. He tries to show that any understanding of things goes back to our pre-empirical consciousness of temporality (Ahmadi, 2002, 555). To implement this concept in design, we must make a meaningful relationship with its three extents, which has been described in the next step.

2. Establishing a meaningful relationship with the triple extent of Temporality

In this phase, we define the concept of temporality by the continuity of the three extents: “factuality” (the past), “presence” (the present), and “futurity” (the future).

Factuality: The term “factuality” refers to a priori concept of things that facilitate our understanding of the environment around us. Because products are not just physical things. Rather, they are the worlds in which one finds himself in a particular sense of being with each of them.

• “Melodic” Kettle (Fig. 2): The designer has attempted to convert a weakness in the design of this kettle (Unpleasant sound of the kettle while boiling water) into strength by reminding the familiar phonetic (sound of the steamboats in the river).

• Carlton Bookcase (Fig. 3): the bookcase has a colorful and sculptural form that can be reminiscent of childhood logos.
• “ET66” Calculator (Fig. 4): There is no clear link to a specific experience of the past, but the designer has tried to make the product comprehensible, understandable, and expressive by following the gestalt principles of proximity and similarity.

Presence: The second extent, “presence” intertwines with the concept of “attention” (Ibid, 121). Here we mean attention to a priori concept that is matched with the anticipated need and we want to fulfill it.

- “Melodic” Kettle: The practice of drinking tea is usually for short-term relaxation, at work or home. Choosing the sound of moving steamboats in the river reinforces this sense. In other words, the symbolic function1 of this product is matched with a priori concept.

- “Carlton” Bookcase: The use of dynamic forms (diagonal lines behind horizontal and vertical lines) conveys a message to mind coordinated by book reading: movement and change.

- “ET66” Calculator: Calculation is the main function of the calculator, which is directly related to accuracy and clarity. The use of gestalt principles in button layout has reinforced this accuracy.

Futurity: “Futurity” is a synonym of “prediction” that emerges in the projection (design) for the future.

This concept must be done according to the need of human ontologies (Ahmadi, 2002, 134). Therefore, a designer plans and designs for the future relying on a priori concept and paying attention to matching it with predicted need.

- “Melodic” Kettle: The designer has been able to predict and design accurately the user’s needs in the future (need for a sense of variety and humor for in-home products).

- “Carlton” Bookcase: The designer has replaced
the usual and monotonous form of the bookcase with a different form.

- **ET 66 Calculator**: This calculator responds to future human needs of sustainable products through simple, user-friendly and functional design.

3. Establishing a relationship of Being between human and phenomena

During this phase, the design must establish the relationship of Being (temporality) that is necessary for providing the context of understanding. If these relationships are established, these make the content accessible (Khatami, 2013, 186). The purpose of these relationships of Being is the communication that is based on the existence of things. When the product is designed in the manner of temporality, it will create these relationships between the user and the thing. Through which, the user can understand and interact with the product.

- **Melodic Kettle**: the sound of kettle whistle notifies from boiling water. This symbolic function enhances the practical function of the product. It means that the kettle whistle sound has been able to establish a relationship of Being in this product.

- **Carlton Bookcase**: This product creates a sense of dynamic in users through the materials, diverse colors and diagonal surfaces. The concept of reading has the sense of dynamism too. Therefore, creating this sense helps to understand the practical function of the product.

- **ET 66 Calculator**: The clarity of performance and integrity in the appearance of the product has led to a better understanding of its functionality and thus to establish the relationship of Being between the product and the user.

4. Establishing the hermeneutical relationship

In this phase, Heidegger emphasizes on understanding that is the key to the hermeneutic discussions (Khatami, 2013, 68). When we recognize all the various forms of human life, we can expect understanding in a relationship. Then we can claim to be in the realm of hermeneutic; that is, the art of understanding (Gadamer, 2016, 183). Thus, in order to establish a hermeneutical relationship between the designer, the user, and the product, the designer must first have a proper understanding of the user in order to provide the maximize user’s expectations.

- **Melodic Kettle**: The boiling sound in this product is familiar and memorable to most people. Everyone can communicate with the handle kettle shape, which symbolically resembles a rooster (a metaphor of the time to drink tea in the morning).

- **Carlton Bookcase**: The designer wanted to embrace the majority of the community with his design and expressed his opposition to the class differences in society. For this purpose, he used various materials (for example the expensive marble alongside the cheap plastic) to build this bookcase. But in the end, this product was welcomed by the upper class of society (Soleimani, 2017, 232). Because he failed to correctly identify his user’s expectations to eliminate the class differences.

- **ET 66 Calculator**: The simplicity of form, the layout of elements, the color selection based on Gestalt principles, and the use of minimal detail in this calculator make it easy for most users to utilize it. The success of this product was so impressive that Apple has designed its iPhone calculator app inspired by the layout and color of its calculator buttons (Fig. 5).

5. Disclosedness

If the designer establishes a meaningful relationship with the three dimensions of temporality and thus provides temporal relationships with the past and the future in the present, and thus the product is understood and incorporated into the hermeneutic relationship with the audience, it will succeed to reveal clearly its existence and it does not require further explanation.

- **Melodic Kettle**: The kettle is used for boiling water. The sound of the kettle coming out of it also indicates the boiling water inside the kettle, so it serves the main function.

- **Carlton Bookcase**: The bookcase is used for arranging and sorting books. The variety of shapes and colors on the shelves help to categorize books by subject and...
Fig. 5. similarity of Braun calculator and calculator app on iPhone. Source: Mavroeidi, 2017, 53.

- **ET 66 Calculator**: The calculator is used for speed calculating. The designer has used the button alignment based on the principles of similarity and proximity, and the absence of any additional details to speed up computation. The topic of hermeneutic phenomenology in the field of design has been opened partially by explaining these five phases with examples of product design. The summary of these analyses and their correspondence with the case studies are given in Table 1. To further understand this topic, the key concepts of this approach are presented in the form of a model to clarify its usage in the design process.

**Discussion**

In this section, we discuss how we can apply the theoretical foundations in the preceding paragraph as a phenomenological process to the product design. We use a model for this purpose (Fig. 6). The triple extent of temporality (factuality, presence, and futurity) forms the central core of this model, because they have a direct influence on the design. The term “Factuality” (the past) refers to a priori concepts that include the designer’s personal history, consumer experiences and behavior, and environmental reactions. The designer considers all of which in the design process, some unconsciously (e.g. the designer’s lived experience) and some consciously (e.g. Consumer experiences). The use of a priori concept should be in line with the existence of being (in accordance with the existential need of the product) and reinforces it. The term “Futurity” (the future) refers to the social, cultural and environmental needs that the designer anticipates and projects these into the design. The concept of “Presence” (the present) refers to the emergence of the two concepts -the past and the future- while designing in the present. So, the designer establishes balance between the two concepts in the present (i.e. designing for the future).

The exterior part of this model shows the designer’s duties. “Retention” means the ability to preserve the past information (designer’s lived experience, consumer behavior, and environmental reaction) and use them in designing for the future. “Attention” to this information helps the designer to “Project” the future ontologically (in accordance with the existential need of the product).

The circular section also shows what happens at the intersection of these triple extents. “Providing present” is a practice that happens when the designer holds a priori concept and pays attention to this in the present. “Forecasting” is the result of attention to the future that needs to project them for implementation. At birth, “Designed product” also becomes a past for a distant future.

In the next, we randomly select a product and fit it in the model to determine the functionality of it in the phenomenological design and to measure the generalizability of the model to previous successful products.

**Evaluation of the proposed model**

In this section, we evaluate the conformity of the proposed model with the process of designing products that have been successful in consumer interaction. For this purpose, we select the “Juicy Salif” lemon squeezer of the French artist Philippe Stark (Fig. 7) for evaluation. In the following, we describe the design process of this product step by step, in accordance with the proposed model.
Table 1. The Adapting of hermeneutic phenomenology steps to the product samples. Source: authors.

<table>
<thead>
<tr>
<th>Hermeneutics Phenomenology Steps</th>
<th>Case Studies</th>
<th>The Alessi Kettle</th>
<th>The Carlton Bookcase</th>
<th>The Braun ET66 Calculator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factuality (the past)</td>
<td>Replacing the unpleasant sound of boiling water with the pleasant sound of steamboats moving in the river</td>
<td>Colorful and sculptural form, reminiscent of the Lego game</td>
<td>Making the product form, remind and understandable by following the gestalt principles of proximity and similarity</td>
<td></td>
</tr>
<tr>
<td>Presence (the present)</td>
<td>Matching the sense of drinking tea with the sense of hearing the sound of steamboats moving in the river</td>
<td>Matching the reading message (movement and change) with the sense of looking at the dynamic shapes of the shelves</td>
<td>Matching the Goal of using Calculator (Accuracy and Speed) with the Goal of using Gestalt Principles (Accuracy and Clarity)</td>
<td></td>
</tr>
<tr>
<td>Futurity (the future)</td>
<td>Design for the need of diversity, humor and relaxation in home products</td>
<td>Design for the need of diversity in the usual and monotonous bookcase forms</td>
<td>Designing a sustainable product to meet human needs for more consumer-friendly products (environmentally friendly)</td>
<td></td>
</tr>
<tr>
<td>Established a relationship of Being between human and phenomena</td>
<td>Understanding the time of boiling water through the good sound of the kettle whistle</td>
<td>Understanding of how to arrange books by variety in shelf shape and color</td>
<td>Understanding the practical function of the calculator (accuracy and speed of calculation) through honesty and clarity in the usage of it</td>
<td></td>
</tr>
<tr>
<td>Establishing the hermeneutical relationship</td>
<td>Using a familiar sound for most consumers</td>
<td>Using various materials to oppose class divisions in society (almost unsuccessfully)</td>
<td>Simplicity in form and minimal design to communicate with the largest of consumer</td>
<td></td>
</tr>
<tr>
<td>Disclosedness (Informing the time of boiling water and symbolic function (a sense of calm))</td>
<td>Disclosedness of practical (how to arrange books) and symbolic function (the feeling of change and dynamism)</td>
<td>Disclosedness of practical (Computation action) and symbolic function (timeless and sustainable form)</td>
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<td></td>
</tr>
</tbody>
</table>

Fig. 6. Phenomenological product design model. Source: Authors.

Philippe Stark has used these items as the priori concepts in design: 1. Fork-shaped like legs 2. The characters of sci-fi movies that Stark loved in childhood. 3. Streamline forms that were a metaphor for social and technological progress in the 30’s and 50’s. 4. The body shape of creatures like a spider. The item that the designer introduces as the primary need for the future is the need for a simple and practical device that can capture citrus juice quickly. Considering the familiar forms of the past and the need for the future in the present inspired a form to the designer which had the following characteristics: 1. A futuristic form 2. A humorous form that can be an excuse to start a conversation between people. 3. A practical form that can quickly capture citrus juice with it.

The designer has been able to design the basic need -a simple device for capturing citrus juice with unique and innovative features- with “Providing present” by some priori concepts (streamline forms, forms of living creatures such as spiders or marine creatures, etc.) and pay attention to their matching with anticipated needs. The designer has wanted to predict a futuristic form (by using the aluminum body and the streamlined form...
that evokes the concept of speed and progress) as well as awaken a sense of fun and humor in the consumer (Philip Stark describes the lemon squeezer as an excuse to start a conversation between two people).

As a result, we observe that the designer correctly identified the relationship between the existing information and the future need by providing the priori concepts. He used the relationship to serve the basic need. So he has designed a product with the following features by projected future:

- High speed in use and washing
- An excuse to start a conversation (humorous form)
- A futuristic form
- Durable and sustainable product.

Of course, the design has not been successfully completed and the designer cannot fully realize its functionality, so the use of this lemon squeezer is not simple and requires a lot of force to get citrus juice. Also, the place of the lemon squeezer becomes dirty after use. The designer could have been more successful in establishing a stronger hermeneutical relationship between the product and its user (Russo & De Moraes, 2003, 147).

Thus, matching the proposed model with a successful product in industrial design history shows us that the hermeneutic phenomenology is usable in the product design process. This method can improve the relationship between product and user by applying life experiences and implementing it in design.

**Conclusion**

Hermeneutic phenomenology seeks to understand and use life’s experience to improve conditions. To this end, the designer can provide a position in the design in which the priori experiences and concepts are used to serve the essential needs of the product. We analyze four products as case studies to examine that can apply this approach to enhance the success of the product in the right interaction with the consumer. We first evaluated three sample products for interpreting the hermeneutic phenomenology steps in the product design process. Then we presented a model to illustrate the relationship between the phenomenological approach and the way it is applied in the product design process. Finally, we introduced the fourth product, “Juicy Salif” lemon squeezer to test the proposed model. With introducing this product we show that the proposed model has generalizability. It also partly clarifies how this proposed model can be implemented in the product design process. To
continue this kind of research, we propose that the hermeneutic phenomenology be studied in relation to the three functions of the product and be measured its positive impact.

Endnote
1. Each designed product has three functions: practical, aesthetic and symbolic. Practical function refers to physiological aspects during the usage of a product with a user. Aesthetic function refers to psychological and sensory perception aspects during the usage. Symbolic function is also a sign that reminds something of the past and stimulates the user’s emotions; in other words, a thing is considered a symbolical thing when it signifies to something more than its obvious meaning (Soleimani, 2017, 204-205).

Reference list