

# THE VALUE OF DESIGN RESEARCH

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## Semiotic Research in Furniture Design: What is the Added Value?

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### ABSTRACT

*The following paper attempts to evaluate the importance of semiotic studies, not only for research in design, but for designers as well. To do so, we will present some of the results of our research on furniture design in which we studied the lifecycle of domestic furniture products.*

*Our methodology consists of analyzing of two separate issues, using two different approaches.*

*Firstly, we hope to show the importance of a semiotic analysis applied to the cycle of change of domestic furniture. Our methodology is based on a semiotic approach of the cycle of habit and habit-change as presented by Charles Sanders Peirce and developed by Bernard Darras and Sarah Belkhamza.*

*Secondly, we try to evaluate the added value of semiotic research for designers. The methodology used here is based on a pragmatic approach in which we will present the results of an investigation conducted with approximately one hundred amateur women involved in DIY (Do It Yourself) domestic furniture products. The furniture that they refurbish demonstrates a creative capacity, which has caught the attention of some professionals in the furniture sector as well as our attention, as an interior designer. A semiotic analysis of these refurbished products, in which we study trends, styles, representations and the intentions of these women, can be a potential opportunity to new conceptual approaches for designers.*

*Keywords: Semiotic research, research in design, furniture design, designer, conceptual approaches, cycle of change, domestic furniture products, habit, habit-changes.*

### 1 INTRODUCTION

In order to evaluate the importance of semiotics for research in furniture design as well as for designers themselves, we will present a research project started in 2011. In this project, we studied the different phases of the cycle of change of domestic furniture products. Our study focuses on the phase of reception, starting from the moment the user enters into contact with the product and including the following phases: purchasing, testing, habit of use, disruption in use, doubt and desire for change, crisis and rejection, searching for solutions.

The study that we conducted included only women. This was not a random choice. In fact, we verified through the results of another research project that women are more involved and interested in this cycle of change. In our project, we elaborate on three principle areas of research: the manifestation of the desire for change, solutions for innovation and contributions to an ecological design.

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In this paper, we present the results of our study in order to show the importance of semiotic research. The questions we ask are the following:

- 1- To what extent has semiotics been an unavoidable step in the study of how beliefs and habits take shape during the cycle of change of domestic furniture products?
- 2- How can semiotics be of importance for designers?

### **2 METHODOLOGIES**

The process of answering these questions involved the use of two different approaches:

In the first approach, we try to demonstrate the importance of semiotic analysis applied to the cycle of change of domestic furniture products. Our methodology is based on a semiotic approach developed by Charles Sanders Peirce on the cycle of habits and the change of habits<sup>1</sup>. With reference to Peirce's research, as well as that of Bernard Darras and Sarah Belkhamza<sup>2</sup>, we will demonstrate how this cycle can also be applied to domestic furniture products.

As for the second question, we will attempt to evaluate the importance of semiotic research for designers. Here, we use a pragmatic approach based on the results of a survey conducted with approximately one hundred amateur women involved in DIY (Do It Yourself) domestic furniture products. These women have shown an indisputable level of invention and creativity. A semiotic analysis of their refurbished products could be of great importance for designers.

### **3 TO WHAT EXTENT HAS SEMIOTICS BEEN AN UNANOIDABLE STEP IN THE STUDY OF HOW BELIEFS AND HABITS TAKE SHAPE DURING THE CYCLE OF CHANGE OF DOMESTIC FURNITURE PRODUCTS?**

As we have said, our research on furniture design consists of studying the cycle of change of domestic furniture products. How can semiotic analysis, therefore, be of importance to our research? Before answering this question, we wish to clarify certain aspects of our research project:

The cycle of change of domestic furnishing products is evidently growing at a continuously faster rate. Products that furnish home interiors tend to have an ever-decreasing lifespan. As for the users of such products, they are increasingly exposed to the influence of factors (internal and/or external) that push them to change the decor of their home on the basis of new needs or trends. The users are thus continuously involved in a new phase of adaptation to their home environment as well as in the construction of new rapports with the objects they acquire.

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<sup>1</sup> Cometti, J. P. (2010) *Qu'est ce que le pragmatisme ?* Paris, France : Gallimard.

<sup>2</sup> Belkhamza, S. et Darras, B. (2009). *Objets et communication*. Paris, France : L'Harmattan, pp.147-160.

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In the following analysis, we will go through the different phases of the cycle of change of furniture, from the moment of acquisition to the moment of rejection. We hope to demonstrate how different factors disrupt the "habit of use". In order to do so, a semiotic analysis would be the most suitable approach to undertake.

For Peirce, habits are the "final interpretants" of all signs. Thus, the study of their metabolism or change also applies to the cycle of use of furniture (Figure 1): "This pragmatic theory of belief-habit can be applied to all semiotic situations, and more particularly, to all situations which bind humans to objects"<sup>3</sup> (Darras and Belkhamza, 2010, p. 150)<sup>4</sup>.

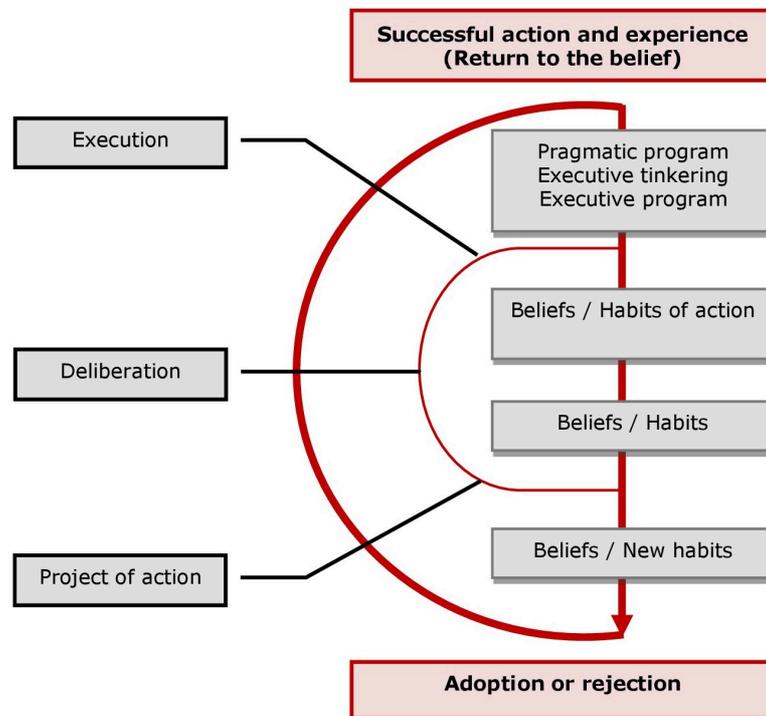


Figure 1 –Cycle of habits according to C. S. Peirce<sup>5</sup> (Darras and Belkhamza, p. 151)

A detailed semiotic study on the phases of interaction between the user and furniture allows us to demonstrate how beliefs and habits are deployed in the interactions of the consumer with his/her environment and how they are renewed in a spiral process and maintained by factors that stimulate change and innovation. We will briefly summarize these phases of interactions, which take place in three steps and present them in the chronological order that they appear.

### 3.1 PHASE 1: FROM THE EMERGENCE OF A NEED TO ITS SATISFACTION

<sup>3</sup> Ibid, p.150.

<sup>4</sup> We take full responsibility for all translations of citations from other authors.

<sup>5</sup> Ibid, p.151.

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The purchase of furniture is usually instigated by a feeling of need. The user seeking satisfaction sets out looking for the most adequate product. He/she will look into different offers on the market adjust his/her expectations to what is available. The choice of furniture differs from one consumer to another depending on each person's tastes, needs and resources, but also on influential elements such as: the mediation of the seller, the attractiveness of the space used for presenting the products or even the existence of promotional offers.

Aesthetics play an important role, particularly in the process of seduction. Once the consumer has been captivated by the product, the aesthetic aspect takes over, the senses are stimulated and the user enters the phase of auscultation: he/she will look at the product more attentively and if possible, touch the material and test out the product. The user will then enter the phase of doubt, hesitation and questioning: "Does this furniture really satisfy my need? Where will I place it? Will it be in harmony with other pieces of furniture I possess? How much does it cost? Is it a good deal?", etc. Once the user has attempted to resolve these issues, all the while being within a context of temptation and seduction staged by the shopkeepers, the phase of deliberation reaches an end with a sort of predisposition to take action, a "*would be*" state that may lead to a suspension of the action "I would like to buy it", for example, or rather a resolve to act on "Buying" or "Not buying". The decision to make a purchase or not will depend on the interaction of the user with the product within the environment where it is being sold and on the manner in which the buyer has been able to project the article within his/her own home. If the product meets the expectations of the user, he/she will purchase it. If not, the unresolved doubt will reset the cycle of searching for the adequate furniture in motion until the highest number of purchasing criteria are obtained.

The purchase and possession of furniture procures a feeling of relief from need and a feeling of temporary satisfaction. Satisfaction is even more complete and accomplished when the product is truly able to meet the needs of the consumer throughout its use.

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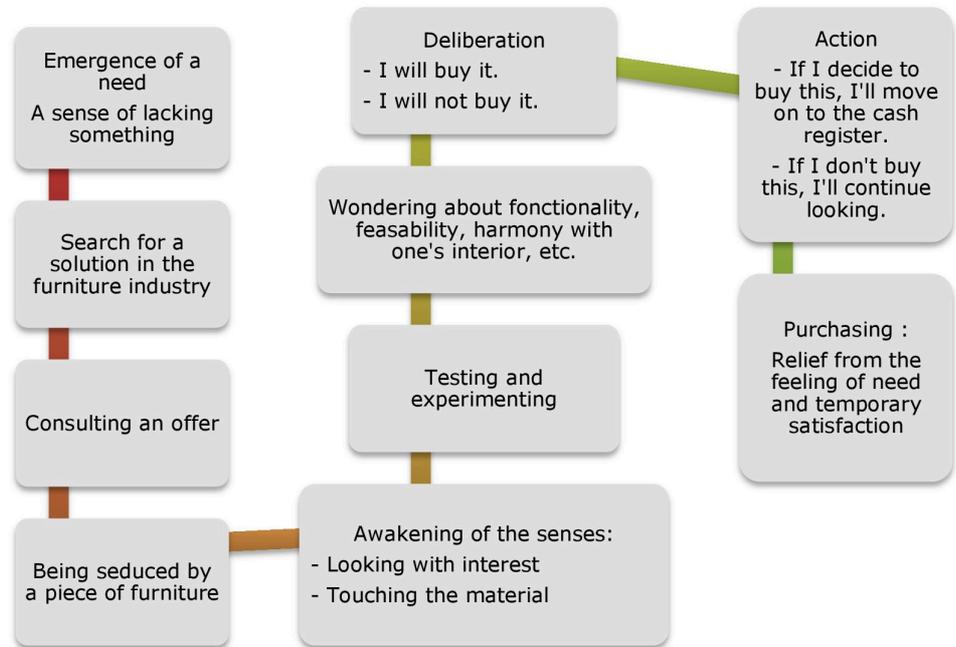


Figure 2 –From the emergence of a need to its temporary satisfaction

The beliefs of the user intervene throughout all these phases (Figure 2). In reality, from one phase to another, a series of representations and information stocked in the user's memory will be activated. Old beliefs are probably confronted with pressure coming from the world of fashion and influence the user's sense of style, effecting his/her choices and decisions.

### 3.2 PHASE 2: FROM THE EMERGENCE OF HABIT OF USE TO AUTOMATION

Once a new piece of furniture has been acquired and set within the domestic space, the user will first go through what is called a phase of pragmatic program. "This is what Peirce describes as a ready-made formula to serve as a guide to action"<sup>6</sup> (Darras and Belkhamza, p. 151). All new objects are generally delivered with a brochure which serves as a user's manual, to aid in assembling parts and also prescribes and recommends how the product should be used (external memory).

However, the pragmatic program is generally "insufficient" for immediately using the piece of furniture. It merely serves as a preliminary aid before use. As Darras and Belkhamza explain: "This pragmatic program is insufficient for taking concrete action. It is only a preparatory formula for action. In order to be carried out, a phase of interaction, adjustment and improvisation with the field, which we have named the phase of "executive tinkering", is required"<sup>7</sup> (p. 152). If this phase of tinkering is regularly successful, the habit will be established into an "executive program" which is in fact the completed form of the habit and

<sup>6</sup> Ibid, p.151.

<sup>7</sup> Ibid, p.152.

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therefore, of the signification. The new furniture will then have acquired its full meaning within the home and in the significant interactions that it facilitates.

During this phase, the user is constructing new rapports with the environmental system that he/she has modified, especially with the new product itself. New habits are thus born through the process of familiarization. The manner in which the product is used must be adjusted and adapted to its functional constraints. Within this phase of familiarization, we learn how to manipulate the product. As the manipulations are repeated over time, habits take shape and the mechanisms of use are perfected. According to Beaunieux (2007, p.52, as cited by Darras and Belkhamza, p. 156):

*"Learning a procedure takes place in three distinct phases: a cognitive, an associative and an autonomous phase. During the first phase, the subject discovers the need to learn: he/she will go through a lot of trial and error. Then, during the associative phase, which is a transitory phase, he/she will begin to control the task at hand, without necessarily having automated it. Finally, during the third phase, the gestures become automatic and reach a maximal level of efficiency."<sup>8</sup>*

At this time, new habits will become integrated and incorporated within the scenario of daily actions in order to become "belief-habits of action". Through an increased frequency of use, further confidence will be gained. The repetition of the same action will, in most cases, lead to automation and a sense of ease.

*"When the articulation between « executive tinkering » and the field is systematized, it will lead to what we call an executive program, which is a type of fixed complex scenario. If it is repeated multiple times, this executive program can even become automatic during the phase of learning"<sup>9</sup> (Darras and Belkhamza, p. 156).*

### 3.3 PHASE 3: DISRUPTION AND CHANGE OF HABIT

The daily use of the same piece of furniture can be disrupted by one or several events. The disruptive event may come from the furniture itself, from the disintegration of the feeling of newness that comes with repetition, in the monotony of use or coming from some other external factor.

Unnumbered lists should use an em dash as a bullet. The "lists" style should be used. For numbered lists, the "numbered lists" style should be used.

— Disruptive causes coming from the furniture itself can include the dysfunction or rapid wear and tear of the furniture, or its failure to meet the evolving needs of the user.

— Disruptive causes coming from one or several external factors may include things such as fashion trends or the idea that the consumer has of his standing, which is in part due to the social image constructed by the furniture itself.

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<sup>8</sup> Ibid, p.156.

<sup>9</sup> Ibidem.

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In the capitalism of consumption, disruptive agencies and imperatives are increasingly numerous. They lead the user to doubt their "belief-habits". The user gradually becomes weary with the product and desires change or innovation. This probably leads to a decrease in the frequency of use (the inhibition of action phase). The user will then enter the phase of crisis. As Darras and Belkhamsa explain:

*"The phase of doubt does not spontaneously lead to a phase of searching for solutions to the problem, nor to the resolution of the identified problem. More often, it feeds a phase of confusion, regret, resistance to change, blindness, hesitation and failure, which we call the phase of crisis"*<sup>10</sup> (p.155).

Some remain in this phase of crisis. Others seek out solutions to put an end to the annoyance caused by the disruption (Figure 3). Members of the creative class (Richard Florida, 2002) spend their time searching for solutions to the disruption causing problems. Suggested solutions are often not permanent and provoke further disruptions. This is what allows the creative class to exist and to perpetually be in search of solutions, not only in their professional life, but in their daily life as well. For Darras and Belkhamsa:

*"Individuals do not all have the same behaviour, nor the same expectations. Creative individuals therefore, are more attracted to the tensions caused by problems than they are by stability. They prefer professions and activities, which involve higher levels of risk, where habits are often destabilized. They enjoy their beliefs being put to doubt and having problems to resolve and challenges to overcome, all of which stimulate their imagination, their creativity and their spirit of invention"*<sup>11</sup> (p. 159).

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<sup>10</sup> Ibid, p.155.

<sup>11</sup> Ibid, p.159.

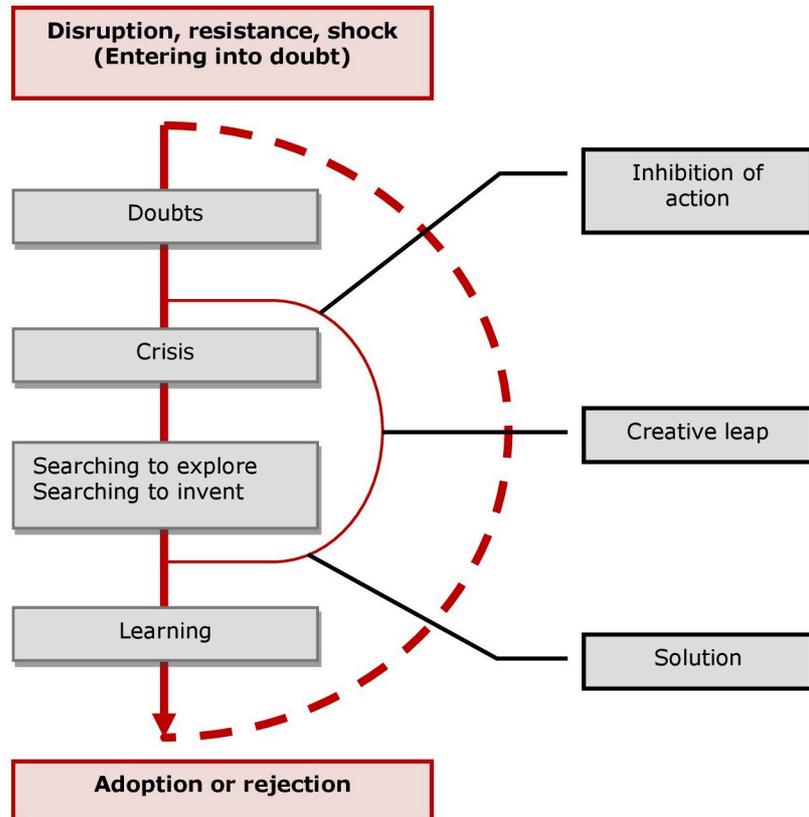


Figure 3 –Cycle of habits according to C. S. Peirce<sup>12</sup> (Darras and Belkhamza, p. 154)

In certain cases, the desire for change becomes so deep that it transforms to a need. The user psychologically rejects his/her old furniture and sets out in search of a new product. The introduction of new furniture inside the home leads to a new cycle of fixation of beliefs and adaptation to new habits of use.

*“If the new-found solution passes the challenges of viability and coherence with success, this dissipation of doubt can become a new habit. If in the competition between existing habits, the solution succeeds in imposing itself, becoming validated and then being adopted by the interpretive community of the subject, it then becomes a shared habit (a consensus) and eventually, a habitus. It is then individually and socially incorporated until the next hesitation, indecision and doubt, which will lead to a new search for solutions”<sup>13</sup> (Darras and Belkhamza, p. 157).*

Disruptive factors destabilize the interactions between the user and his/her furniture and prepare favorable grounds for consumption. The cycle of habit and change of habit is thus activated after each change.

<sup>12</sup> Ibid, p.154.

<sup>13</sup> Ibid, p.157.

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Innovation, fashion, trends and new needs constitute the motor that run the furniture industry. In order to maintain its survival or to sell more, the production policy is the same: seduce as a priority to sell, and then prepare suitable grounds to trigger a disruptive factor, which will stimulate the rejection of the product and the desire for change. Therefore, numerous people voluntarily let themselves be carried away by the cycle of frequent consumption that they contribute to building. Their beliefs and their habits are disrupted and this is often the effect that is sought.

### 3.4. THE IMPORTANCE OF SEMIOTIC ANALYSIS IN OUR RESERCH

The semiotic analysis model on the fixation of habits and habit-changes, developed by Darras and Belkhamssa, has served as the basis of our study. It has allowed us to follow the different phases of interactions and of construction of meaning between the user and the domestic furniture products, while respecting the logic of successions of events (Figure 4). Thanks to this semiotic analysis, we have been able to carry out an in-depth study of the different phases of the cycle of change of domestic furniture products. This has allowed us to prepare the investigation protocol of our research project, particularly the questionnaires and interviews conducted with professionals. However, the value of semiotics is not limited to the phase of research in design. By exploiting the results of one of our investigations, we will try to demonstrate how semiotics can be of importance to designers themselves.

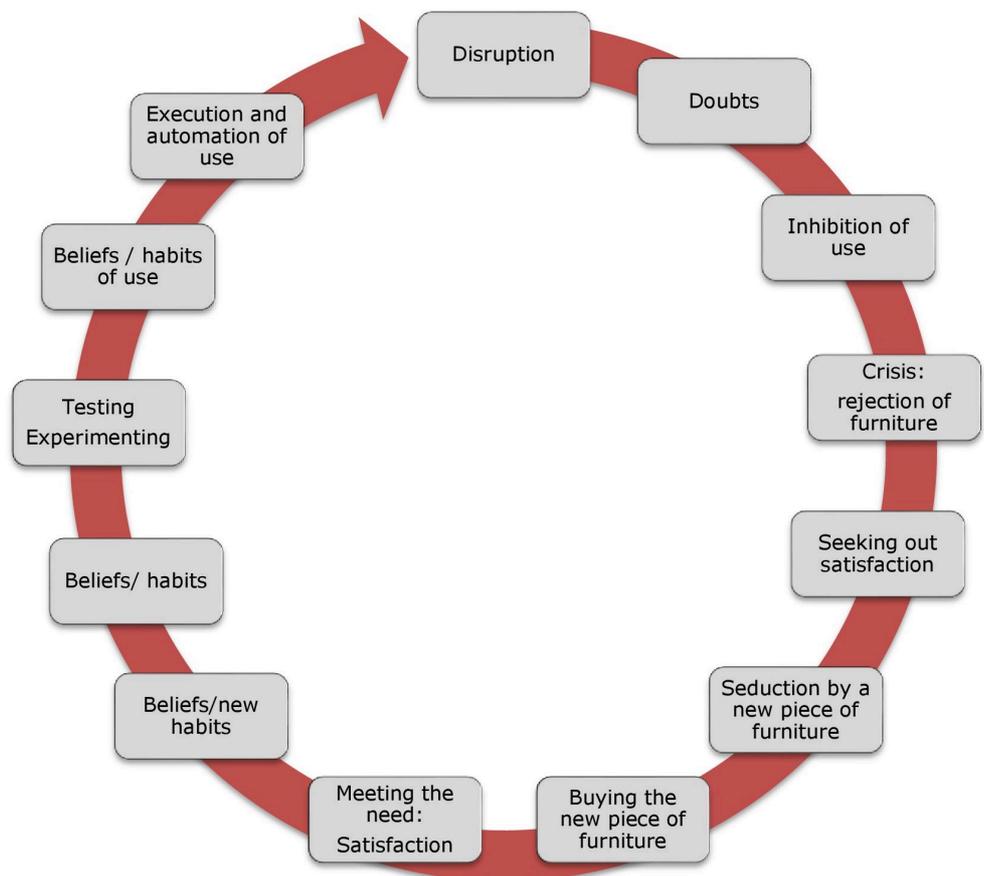


Figure 4 –Fixation of habits and change of habits in the cycle of use of domestic furniture products

#### 4 HOW CAN SEMIOTICS BE OF IMPORTANCE FOR DESIGNERS?

In order to respond to this question, we will use the results of a questionnaire based on the study of a group of French women involved in the cycle of change and innovation of domestic furniture products through DIY activity. Such activity, named « *bricolage* » in French, can be defined as a type of « re-creation » of used or recuperated products. By activating new cycles of use, this type of activity gives a second life to products destined for abandon or for the trash. On the one hand, refurbished products demonstrate a significant creative capacity and on the other hand, an ecological and economical trend. A semiotic analysis of these products, carried out by design professionals, can lead to new conceptual approaches. In the present paper, we hope to demonstrate the importance of semiotics for designers.

We resorted to specialized online blogs for female do-it-yourself in order to find this particular category of women. We managed to get 107 bloggers to take our online questionnaire, composed of about 30 questions. These women showed great passion in the field of home decor. Their blogs allow them to post and share with others the products they conceive, modify, recuperate and restore. The study ended around November 2014. The following table (Table 1) presents some of the data obtained:

QUESTIONS	THE HIGHEST PERCENTAGES OBTAINED
How did you learn to refurbish/restore furniture?	92%: I learned alone.
What do you do with the products you refurbish/restore?	80%: I keep them to decorate my home.
What is the frequency of change and innovation within your home?	42%: I often innovate. I like change.
How often do you refurbish/restore furniture?	67%: In my free time, for pleasure.
Questions on expenses: please choose the profile that corresponds to you the best.	51%: I limit my expenses, I look for good deals during sales periods, I find second-hand shops, garage/yard sales, etc.  38%: I limit my expenses, I work on DIY activities or I recuperate used objects and restore them to meet my taste.
What personal factors do you possess that give you the need to innovate and change	94%: The need to innovate for my own

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your interior decor?	pleasure.
What are the socio-cultural factors that influence you to change your home decor?	65%: Currently, interiors look very much same. I want to stand out through my own personal style of decor.
What are the external factors that influence you to change your home decor?	63%: Home decor magazines. 29%: New trends in home decor.
Furniture and the decor of domestic spaces seem to interest women more than men. Do you have the feeling that you are sometimes the target of certain marketing strategies?	35%: Yes. 41%: Sometimes.
How do you feel when you live in an environment where the decor is the same for a long period of time?	76%: Bored, weary.
What do you do to you old furniture?	75%: I modify them (innovation through DIY activities to give them a second life).
Are you aware of the environmental impact of furniture products?	81%: Yes.
Are you aware that during the phase of use, some furniture release chemical substances that are hazardous for health?	76%: Yes.
Are you willing to recuperate furniture or a decorative object from the street and place it within your home?	96%: Yes.
Do you think there are increasingly more women who turn to DIY furniture as a solution to innovating furniture?	71%: Yes.

*Table 1-Research on amateur female do-it-yourselfers Presentation of some data obtained*

What we can conclude from these results is the following:

The majority of amateur female do-it-yourselfers have learned to refurbish/restore furniture alone. In most cases, this category of women carries out this type of activity during their free time and for their own personal pleasure. They confirm liking change and feeling bored and weary when living in an environment where the decor stays the same for a long period of time. Refurbished/restored products are principally destined for redecorating the interiors of homes. These women look to stand out through their personalized and unique home decors, which are more adapted to their own personal style. Several factors can intervene in this type of activity, notably the influence of decor magazines (63%), as well as the existence of new trends (29%). More than a third of these women feel that they are the target of particular marketing strategies that aim to "stimulate" the female population to consume new furniture products. However, while remaining sensible, they demonstrate

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resistance to such influential factors. In order to limit their expenses, they seek out good deals during sales periods. They can also find objects in second-hand shops and yard sales. Their resistance to direct consumption manifests itself through their DIY activity in which they recycle and refurbish old products or used objects that they find in second-hand shops, garage/yard sales and even on the street. In this manner, they participate in the economy of recycling furniture products by giving them a second life.

The majority of participants are informed of the environmental and health impacts of certain furniture products be it during the production process (81%) or during the phase of use (76%). Finally, in addition to having a highly economic behaviour, we noticed that the majority of these women also have an increasingly ecological and hedonistic behaviour. Such DIY activity are regarded as a pleasant activity which allows one to follow economic and ecological trends (on the condition that the restored/refurbished products conform to ecological and health norms). According to these bloggers, more and more women are turning to this type of solution.

In conclusion, we have been able to detect a new form of creation amongst these ordinary women who have not had any specialized training in this area. They are engaged in such an activity for their own pleasure and to have their own style, while getting inspiration from new trends. The refurbished/restored products demonstrate a real creative capacity, aesthetically and functionally speaking, to the point where we can ask whether it is suitable to speak of a form of design for non-professionals. As Stéphane Vial highlights, "Design begins where there is already a use-value"<sup>14</sup>.

Some professionals in the furniture sector appreciate refurbished/restored products created by these amateur female do-it-yourselfers. Our survey showed that 35% of these women have been contacted for a partnership deals or offers of employment. This confirms the importance of taking an interest in such products by analyzing trends, tastes, representations and the intentions of these women.

A semio-pragmatic analysis that deals with both modes of construction and evolution of beliefs, habits and how individuals construct meaning seems to be a very suitable method. How so? It can be said that the value of such an analysis resides within the capacity to simultaneously articulate the product within its system of objects, as well as the consumer in his/her environment. This is where the work of the designer, who shows interest in the emergence of these new products and the needs of female consumers, can intervene.

In our opinion, in order to innovate in design and particularly in eco-design, it is important to study the objects redesigned by amateur do-it-yourselfers. This systematic study could stimulate new conceptual strategies and we believe that semiotic analysis is an excellent tool that can be used to follow these changes, adapt to them and anticipate them.

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