ABSTRACT

This article deals with strategy step of furniture design, in particular with sensemaking. This last is an abductive process, which this paper restricts to designer’s interpretation on objects of his/her area of expertise.

The research has complied with a circular evolution, essentially composed by: 1. empirical analysis of furniture sector and relative cultural trends; 2. research of semantically coherent groups of furniture; 3. theory-building. The result is a methodology able to guide and visualize sensemaking in furniture design process.

Beginning from Peirce’s Semiotics, this study reconstructs a theoretical framework by identifying four kinds of furniture-referent connections and four corresponding semantic purposes. Then, it guides the creation of a concept map representing mental organization and interpretation of the gathered iconographic material. Concept mapping generates semantically coherent groups of furniture, which we can see as design patterns directing final sensegiving.

This paper focuses on a practical use of semiotics in furniture design, in particular in the strategy step of design process. It proposes a referential vision, using visual tools that could help designer in managing the sense of his/her product.

Keywords: Furniture Design; Sensemaking; Design Semiotics; Pragmatism; Home Environment.

1 SENSEMAKING IN DESIGN

We generally classify home furniture as a low-tech sector, which requires research mainly in the not technological area of meanings.

We can classify meanings in two main groups: manifest meanings relative to cultural context, and latent meanings relative to use and appropriation of object. For the first cluster, we start from humanistic motivations, by regarding individual as culturally heterogeneous. For the other one, we look into consequences of use, by regarding individual as transcultural. In the first case, innovation refers to semiotics and design-driven approach, whereas in the second case it is related to user research and user-centered approach.

In design, innovation process is founded on a complex and interdisciplinary research devoid of boundary lines between paradigms (Gomes de Medeiros, & Ashton, 2005: 56). It starts with research about manifest meanings, and then it inquires into requirements connected to further latent meanings experienced by
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use. Throughout the process, the approach moves gradually from design-driven to user-centered (Verganti, 2009: 193).

What interests this paper is the front end of innovation process, where the cores are sensemaking and sensegiving. The first one is the interpretation of connections between objects, real referents, and cultural values, whereas the second one is the following synthesis step setting visions up. Other designers call these steps scenario and vision (Proni, 2012: 74-80), though it is difficult to define precise conformity.

When we talk about sensemaking, we mean an abductive process informed by inference (Kolko, 2010a: 19; Stevens, 2012). Generally, it involves not only designer’s area of expertise but also other heterogeneous material relative to cultural trends (personal interviews, publications, movies, art works, etc.). However, designer’s work affects mainly his/her specific area of expertise, and other information often derives from experience or indirect processes carried out by other professionals. This is why this paper strictly regards sensemaking as designer’s interpretation in his/her area of expertise.

It is clear that a methodology applied to sensemaking would allow designers/art directors to visualize and organize that process. They would get several advantages, in addition to more effective innovation paths. Interpretative process would be shared with all design team and with other corporate areas (Kolko, 2010b: 818; Proni, 2010: 18); an interpretative principle would be transferred within the company, limiting the importance of individuals; relationships with clients or managers would be facilitated, because they would understand more easily the influence of the research work on the result (Kolko, 2010a: 16-17). We could find similar advantages in applying a methodology to design critics (Ilstedt Hjelm, 2002: 1) and education (Mattozzi, Sperotto, & Poli, 2009: 96). Nevertheless, the most designers do not follow a systematic methodology, but they instinctively interpret objects by counting on their experience, without a real externalization (Deserti, 2007: 90; Kolko, 2010a: 16-17; Lawson & Storer, 2008: 43).

2 PEIRCE’S SEMIOTICS FOR FURNITURE DESIGN

In the previous paragraph, I have talked about the need of a methodology in sensemaking. Actually, design semiotics and interpretative methodology are convergent issues (Mattozzi, Sperotto, & Poli, 2009: 95). We can account a piece of furniture as a sign, which signifies the connection between the culture we belong and us. Furthermore, we can consider design semiotics to be a methodology, which specifies how to order and interpret the parts of a system where we have to act. It is a methodology allowing us to define what is possible to do, which is both understanding links of meaning (sensemaking) and managing them (sensegiving).

Therefore, the central point of this paper is a practical use of semiotics in furniture design.

According to a first general classification, two opposed theoretical lines have ruled over semiotics of last century. One is structuralist theory, which lets us replace a sign with a meaning established by convention. The other one is Charles Peirce’s pragmatist contribution, and it is based on the interpretation of sign as inference.
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Last century, design theory faced meaning under the influence of structuralism, considering material culture to be the place where artificial culture is founded. Structuralist / linguistic theories focus on the construction of sign. According to them, what sign signifies is relative to what cultural, social tradition has developed in the course of time.

In Peirce’s Semiotics, material culture is considered to be a practical consequence of external social phenomena. If we adopt a pragmatist approach, we do not focus on the construction of product, but on its referents. That is what Proni means when he writes, “The object is the function and not the product” (Proni, 2010: 19). The cultural value of sign does not depend on conventional meanings relative to the inner attributes of object, but on what is evoked by the referent, evoked in turn by our interpretation of the intrinsic features of object. The cultural value is directly connected to the referent and not to the construction of sign.

If culture were a simple system of conventional symbols, experience would be only recognition. On the contrary, if we see culture as a continuous interactive process that we cannot simplify, something new may join experience by the interpretation of the intrinsic features of object. In other words, the cognitive experience of project is strongly linked to interpretative activity, on which Peirce’s Semiotics focuses on (Coyne, 1997: 141).

Pragmatist view seems also more suitable to arts and furniture design, where intrinsic features can stimulate personal independent evocations, and consumer may suppose designer’s purpose through an interpretative approach similar to that one applied to natural phenomena. “Design needs this ambiguity (characteristic of art) to escape from the creation of merely conventional products that are already known. It is necessary to establish unexpected relations that are neither obvious and nor previously accomplished” (Rampazzo Gambarato, 2013: 430). During an interview, the artist Gianni Caravaggio says something similar:

Evocative image creates sense. However, postmodern era has called the sense of image into question. [...] Postmodern image is the product of entertainment. Entertainment is the feature of a society that has imagined free time by an utilitarian interpretation. [...] Now, with this viewpoint, both entertainment and work are parts of something that Hans Blumenberg would refer to ‘Selbstverständlichkeit’ (an expected thing) and Martin Heidegger to ‘Seinsvergessenheit’ (oblivion of being). When a thing is taken for granted, we have no more a direct concrete connection with it. In a way, it becomes predigested, a ‘ready-made judgment’. [...] Now, the essential idea of ‘natural’ image is the opposite of thing taken for granted. Image, like nature, is the quality where things show themselves in our imagination and shape a new sense every time. This new sense happens when, in front of something, [...] we can be again creators of a new connection that I would name intimate. (Caravaggio, 2014: 64)

For these reasons, the methodology proposed in this paper is theoretically based on Peirce’s referential vision, though issues have been adapted to what has emerged from an empirical observation.

Actually, some Italian semioticians have already combined design and Peirce’s semiotics. Nevertheless, it seems that they have accounted object produced by design as artificial, existing mainly as a function of a practical use. They have
not seen it as natural phenomena. Bonfantini and Zingale write, "In case of artificial objects, our interpretation must identify the expected use" (Bonfantini & Zingale, 1999a: 25). "Let’s stop thinking that objects are defenseless and passive […]; on the contrary, objects act toward whom use them, and they do something pro and con us" (Bonfantini & Zingale, 1999b: 61). Zingale writes, "The objects we are talking about are not ‘things’ of nature […], but artifacts produced by people for people, and they exist as a function of a use. […]. The objects to be used are not art works to be guarded, admired, and preserved" (Zingale, 1999: 65-66). In other words, Zingale is concerned with objects as some tools oriented to an activity, and he studies the interaction between those two parts: object and activity [Ibid.: 67]. His main goal is establishing a connection between semiotics and ergonomics, by considering use to be regulated by an interpretation [Ibid.: 68].

However, we cannot say that furniture exists as a function of use, since it can express its sense by either use or perception. Pieces of furniture usually are what Zingale calls 'super-objects' (in Italian, 'oggetti-oggetti'), "objects that we do not really use, […]; objects designed to be watched and not to be taken in hand, […] objects showing themselves only as source of sensations or information, of aesthetic incentive or mere signifying presence" [Ibid.: 71]. At the same way, we cannot say that furniture has an expected communication goal. Poetry lives on ambiguous boundaries, where often the goal is not clear for the very same author and the object turns up as ‘natural object’, open to interpretations that release it from an expected use.

In the following paragraph, I will define provisional theoretical foundations for a semiotic analysis. Later, I will present a practical use of that methodology in the generation of a concept map supporting sensemaking process in furniture design.

3 REFRAMING OBJECT WITHIN SENSEMAKING

Objects produced by design comply semantically with wider cultural values. The diversification of trends in fashion industry and in design meets the need of both founding and expressing collective identities in progress, by resorting to dynamic inter-objective configurations (Landowski, 2002: 44). Furniture, which materializes cultural tensions acting in society, can be connected in same systems with semantic coherence. The goal of sensemaking and semiotic analysis supporting it is exactly uncovering common referents and cultural values, by inquiring beyond single object which has involved design semiotics for a long time (Mangano, 2008: 5-6).

3.1 ‘PROJECT’ AND ‘EXTENSION OF REFERENT’

We have said that, in the semiotic analysis, art director must interpret furniture in order to find common connections with referents and values. However, it is important to note that an interpreter might see a piece of furniture in many ways: as a project; as a mass-produced physical object; as a unique piece marked by whom used it; as a representation of a category (e.g. chair, table, lamp, etc.); as a place of technical contributions; as a material extension of a referent. Therefore, we need to define which aspect designer has to consider in his/her analysis.
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In according to Peirce’s Semiotics, we can classify Sign with three viewpoints: firstly, we can consider it in itself; secondly, we can observe its relationship with Interpretant (interpreter’s mental picture); thirdly, we can reflect how it is linked to Object (the referent it means evoke).

For now, we are interested in Sign in itself and Sign relative to Interpretant, whereas we postpone to the next paragraph issues deriving from the connection with Object.

For its own features, we may designate Sign as a Legisign, Sinsign or a Qualisign. We consider Qualisign to be a specific quality making unique a material object. This object is called Sinsign, and it is a reproduction of an abstract group of rules, named Legisign. This last governs characteristics of materialization. Obviously, we may see a general piece of furniture with the three viewpoints: as abstract project governing realization; as material object concretizing project; or for features that make unique each material object (for variability of natural materials, imperfection of productive process or behaviors of consumers). Sensemaking overlooks materialization and it regards a piece of furniture as a Legisign, a project.

In the connection between Sign and Interpretant, we may designate Sign as a Rheme, a Dicisign or an Argument: Sign is a Rheme when we see it as a possible extension of a referent forming in our mind. It is a Dicisign when we regard it as a fact providing information. It is an Argument when it is seen as a law referring to a specific Object. Again, we can see a general piece of furniture with the previous three viewpoints: as something evoking referents; as a place of technical details; or as a representation of a category to which it belongs conventionally (a chair, a table, a sofa, etc.). In sensemaking, a piece of furniture is a Rheme, a possible extension of a wider referent. This referent will remain a potentiality because not a million objects will be sufficient to explain the whole referent and satisfy its infinite possible extensions. We will have on one hand a referent and on the other hand the extension of that referent (see Eco, 1979). In that sense, we see furniture as an ‘extension of referent’.

3.2 CONNECTIONS BETWEEN FURNITURE AND REFERENT

It is necessary to specify that the connection between furniture and an evoked referent implies another link between the referent and the relative cultural value. This paper does not analyze the interpretation about the referent-value link, because in that case, I regard interpretation as experience-based and connection as always related to a conventional habit. Therefore, a referential view of the furniture-referent connection does not deny that “cultural structure plays a decisive role in the dialogue established between object and us” (Bonfantini & Zingale, 1999: 25).

In the previous paragraph, we have clarified that our semiotic analysis considers every piece of furniture to be a Rhematic Legisign, a design entity evoking a referent in interpreter’s mind. Now we have to see the connection between a furniture and an evoked referent.

For what concerns that kind of relation, Peirce claims that Sign may be an Icon, a Symbol or an Index.

Icon has a relationship of similarity with referent. Peirce admits every type of similarity: for quality (physical similarity), for juxtaposition (diagram), and for
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mediation (metaphor). A piece of furniture is an Icon when it proposes qualitative features of a referent – for instance, it is animal-shaped.

Symbol is linked to referent through an Interpretant, and its sense depends on the conventional way designer and people interpret it. In our analysis, a piece of furniture is a Symbol when it provides codified interactions – for instance, it is configurable.

Index has a connection of physical contiguity and attention directing with its referent. This relation is independent by our interpretation and based on a phenomenological feature. Index is denotative because it only shows the referent, without describing it. This last one is a singular existing entity.

Semioticians have widely discussed about the complex nature of Index and on the several forms it could take in Peirce's semiotics. Actually, the common opinion suggests we keep one class of signs. Nevertheless, for designer, that issue appears very problematic: empirical research finds in images and objects two substantial kinds of subject-index, Index proper and Directional Precept, which create very different semantic effects in interaction with product. In furniture design, we see an Index proper as furniture looking like a trace of a past production, whereas we see a precept as furniture looking like an exhortative element in respect to a future action (cfr. Proni, 1999: 16). About Directional Precept, "it is not the directions themselves that are indexical, but the actions and experiences that result from following them (Atkin, 2005: 174). Only in that sense Directional Precept is meant to result in an indexical experience (Ibid.: 175). Precept, unlike Index proper, has not with its referent a connection independent from our interpretation, and it has a symbolic component, too. It does not show referent, because this last is not there. We can say that it only contributes to define referent.

This paper, based on an empirical research and in prospect of a practical use, differentiates Index proper and Directional Precept as two different classes. A piece of furniture is an Index proper when it looks like a trace of a production process – for instance, a lamp made with reused materials –, whereas it is Directional Precept when it invites to perform an action – for instance, a rocking chair. Therefore, we have two kinds of furniture-referent connections, which we can call 'effectuality' and 'causality'.

In the previous paragraph, I have said that we regard objects as design entities evoking referents in interpreter's mind. Now, in addition, we can clarify that we deal with four kinds of furniture-referent relationship: similarity, effectuality, causality, and convention. If in the same object different relationships coexist – inescapable fact –, analysis takes the main link in consideration.

4 CONCEPT MAPPING: ORGANIZATION AND INTERPRETATION OF OBJECTS

In line with Susann Vihma (2012: 13), I propose to analyse visual objects by visual tools, representing logical relationships between furniture and evoked referents, and not linguistic ones.

If we consider the design practices dealing with physical objects, we find two main features diversifying the several practices. The first one concerns the tendency of object to a more either action role or perceptual role. The other one focuses on the inclination to regard people more as either active subjects or
observed subjects. On that basis, we take a square having two coordinates: one moves between the extremities ‘performing sign’ and ‘perceptual sign’, whereas the other one is contained between the extremes ‘people as active subjects’ and ‘people as observed subjects’. Then we place within the square some furniture chosen from contemporary supply (Fig. 1).

That process shows that groups of furniture gathered in the four areas of the square tend to represent the four possible relationships we have mentioned: similarity, effectuality, causality, and convention. Furthermore, it seems that each kind of relationship corresponds to a particular semantic predisposition (Fig. 2).
In a similarity relationship, furniture (Icon) imitates another real object (Object) with qualitative differentiations. Icon is connotative and similarity tends to promote designer’s expression in the imitation of directly represented physical thing.

In an effectuality connection, furniture (Index) is meant as a trace of a previous activity (Object) – a technique of production, the use of a material, a local decoration, etc. Index is denotative and the main result is the selection and the indication of a specific practice.

In a causality link, furniture (Directional Precept) facilitates a future action. Precept is not denotative because does not ‘show’ anything; instead it ‘contributes to define’ a potential action, also by a symbolic component. Here the semantic purpose is the exhortation of a wished action.

Finally, a convention association is based on furniture (Symbol) sharing with user a behavior pattern (Interpretant) necessary to understand its performance properties (Object). In that case, the central issue is interaction and user’s participation in performance.

We note that the mentioned semantic purposes remind us Rune Monö’s semantic functions – to express, to identify, to exhort, to describe (Monö, 1997: 81-108) –, though Monö does not refer to Peirce’s Semiotics, and some differences persist.

By starting from the just described classification, we can organize a conceptual map that lets us understand gathered material by both creation (implying a value judgment) and visualization (illustrating connections) (Kolko, 2010a: 24-25). Design team progressively places and organizes images according to specific areas (Lawson & Storer, 2008: 45), and it may integrate the map with notes based on personal experiences. The map may be a big physical surface or a digital file, with dynamic nature and the option to be shared, and four areas express the four possible furniture-referent connections with the relative semantic purposes.

Mapping process includes the following stages:

1. Collecting and organizing images in accordance with the four mentioned areas;
2. Grouping images according to homogeneous evoked referents;
3. Connecting groups of images placed in all areas in accordance to common cultural themes.

The first and second steps, establishing sign-referent connections and grouping referents in same classes, are characterized by high subjectivity. We know that in a semiotic analysis “the possibilities to build classes are infinite […] [and in mapping] we carry out sensations synthesis and priority management in a way that our description is one of many” (Proni, 1999: 14). Therefore, the result of interpretation has empirical value. It generates a personal interpretative encyclopedia, which could be both shared by some people and rejected by other ones. Nevertheless, as Kolko explains, subjectivity is normal in sensemaking.

[In sensemaking] it is less important to be ‘accurate’ and more important to give some abstract and tangible form to ideas, thoughts and reflections. Once
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externalized, the ideas become ‘real’ — they become something that can be discussed, defined, embraced, or rejected by any number of people, and the ideas become part of a larger process of synthesis. Essentially, sensemaking is an internal, personal process, while synthesis can be a collaborative, external process. (Kolko, 2010a: 18).

The third step implies a previous process of ‘scenario building’, where we have gathered heterogeneous material (personal interviews, publications, movies, art works, etc.) about collective imagination and we have analyzed it as a large hypertext composed by differentiated, subjectively generalized texts (Proni, 2010: 24). As previously said, the interpretation about the referent-value link is experience-based, relative to conventional habits.

The whole mapping process is circular and the map is constantly in progress, overlapping visualization and judgment. When we identify homogenous groups of referents in relation to cultural themes, we may need to select and organize images again.

This paper shows an example able to show the main features of a practical application of this methodology. In the described case, the field is wide and concerns the high quality market of domestic furniture. The selection of images comes from the observation of the main international competitions, the most important Italian furniture companies and the most popular dedicated websites. The captures I report about the mapping process should provide a sufficient idea.

In the first stage, designer disorderly gathers images of some relevant projects, and he/she places them within areas according to their main furniture-referent relationship (Fig. 3). Then, he/she identifies some groups of furniture that he/she subjectively regards as evocating homogeneous referents (Fig. 3 and 4). The names of the groups are relative to the generalized categories of referents. Finally, designer connects the identified groups with some previously recognized cultural themes (Fig. 5 and 6). In this example, I have identified four themes, which acquire several variations indicated with hash marks.

The creation and the use of a concept map provide semantically coherent groups of furniture, able to evoke connected referents and cultural values. These groups form design patterns, describing the cores of proposals for design issues. "Each pattern describes a problem which occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use this solution a million over, without ever doing it the same way twice" (Alexander, Ishikawa, & Silverstein, 1977: x).

Sensegiving, the active final part of strategy step, can refer to the identified design patterns by overlapping, contradicting, or combining them. In the case of a market-pull process, where pursued innovation is incremental, design decision can refer to one design pattern. If the goal is formulating more complex ideas, art director can resort to an insight combination (Kolko, 2010a: 26-27): individual elements (insights) of design issue are linked one-to-one to single design patterns, which later are creatively combined to look for new semantic keys.
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Figure 3

Figure 4
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Figure 5

Figure 6
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5 CONCLUSIONS

Most design research has devoted efforts to latent meanings experienced in product use. On the contrary, this work is interested in the front end of innovation process, which deals with the design strategy relative to manifest meanings. The core of that design step is sensemaking, which this paper regards as the interpretation of designer’s area of expertise, the connection of objects to referents and indirectly to previously identified cultural values.

We inquire manifest meanings by semiotic paradigm. Even though the design theory of last century refers to structuralist semiotics, this work considers the contribution of pragmatist approach to be more suitable to both contemporary culture and art/furniture. The continuous interactive feature of culture, where something new may join experience through the interpretation of intrinsic features of object, is more and more influent in an increasingly dynamic society. That is especially truth for art and furniture, where intrinsic features can stimulate personal independent evocations and consumer may suppose designer’s purpose through a personal interpretation, which is ambiguous, similar to that one applied to natural phenomena.

The study defines a methodology allowing us to visualize and organize the process of sensemaking. It defines provisional theoretical foundations and, later, it guides the generation of a concept map representing graphically the mental interpretation of its creators. Concept mapping provides semantically coherent groups of furniture, which can be seen as design patterns usable in the next step of sensegiving.

In future research, some issues could be further analyzed. I mean this work as the beginning of a research looking for mediation between semiotics and design practice. Since this study is carried out by designer’s viewpoint, it would be interesting to discuss with semioticians how this process of classification could be developed or modified on the base of semiotic studies proper.

6 REFERENCES


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Bonfantini, M & Zingale, S 1999b, 'L'usabilità e la reinvenzione', in M Bonfantini & S Zingale (eds.), Segni sui corpi e sugli oggetti, Moretti & Vitali, Bergamo, pp. 61-64.


Celaschi, F & Deserti, A 2007, Design e innovazione. Strumenti e pratiche per la ricerca applicata, Carocci, Rome.


Eco, U 1979, Lector in fabula. La cooperazione interpretativa nei testi narrativi. Bompiani, Milan.
Connecting Objects and Cultural Trends: A Pragmatist Approach for Sensemaking in Furniture Design

Francesco Ruffa


Ilstedt Hjelm, S 2002, Semiotics in product design, Centre for user oriented it design, Stockholm.


Connecting Objects and Cultural Trends: A Pragmatist Approach for Sensemaking in Furniture Design

Francesco Ruffa


Proni, G 2012, La lista della spesa e altri progetti. Semiotica, design, comportamenti delle persone, FrancoAngeli, Milano.


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