

Logics at play in everyday organizational situations involving design

by

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Abstract

Through an ethnographical study, the understanding of how the logic of design and the logics of management and engineering interact as well as oppose one another on an everyday basis is examined. From a constructionist view it is will discussed how and why various organizational members might construct and make sense of their activities in relation to notions of design and design thinking. Thus, drawing from the ideas of performative and ostensive definitions of organizational activity it is argued that different underlying ideas of rationality influence how design thinking is understood and acted upon in the everyday reality of organizational life.

Introduction - The fields of design management discourse

In the design management discourse much attention is often given to promote the benefits of design usage in various organizational contexts. If one browse through some of the more popular textbooks in the field, it soon becomes clear that when the design process is dealt with, it is usually in relation to various specific organizational functions as they traditionally are defined by business scholars. There are quite a few points of entry. One common theme is how design can be related to marketing (Bruce & Cooper 1997, De Mozota 2003, Norman 2004). Another theme that is of concern is how design can add to processes of product development and innovation (Bruce & Jevnaker 1998, Bruce & Cooper 2000, Jordan 2002, De Mozota 2003). A third common theme is how design may add to the strategic processes in a company (Lorenz 1986, Walsh et al 1992, Blaich & Blaich 1993, Svengren 1995, De Mozota 2003).

It can be stated that a number of ways of relating design to organizations and vice versa exists. The discussions range from specific functions as such to holistic approaches concerned with organizations as a whole, as well as whether design ought to be used as a resource on single occasions, become a coexisting permanent function in the business or even an integral feature of the over all business strategy as such (see Gorb 1990, Walsh et al 1992, Svengren 1995, De Mozota 2003). When discussing design as a strategic resource, the focal point ranges from strategies of product development (Bruce & Cooper 2000, De Mozota 2003), through globalization (Lorenz 1986, Blaich & Blaich 1993) to an even more extensive approach taken by Walsh et al (1992) and Svengren (1995), i.e. design as an over all business and organizational approach.

The discourse thus pays much attention to how design can add value and how design can get a more obvious organizational role. However, while conducting an ethnographically inspired study of a high tech company that had introduced the concept of design into its every day activities, these two interests did not seem to fully reflect the complexity at hand. While both value adding and the organizational role were dealt with, and in part successfully so, since certain everyday activities definitely were inspired by design thinking, there still seemed to be certain aspects of the proceedings

that caused uncertainty, unease and frustration among the staff. There seemed to be aspects of design methodology and thinking that did not go to well together with their ideas of how things ought to be done. Looking closer at this phenomenon, I soon realized that little attention is paid in the design management discourse to how the rationality that informs design methodology and thinking interacts with other rationalities that are frequent in businesses, such as those found in economic and technological thinking. Certain authors, such as Rosell (1990) Lawson (1997) note the difference and try to explain it, while others, such as Johansson (2006a & 2006b) also suggests a need for a better understanding of how the different ways of thinking can co-exist.

Purpose

This paper strives to make a contribution to the understanding of how the logic of design and the logics of management and engineering interact as well as oppose one another on an everyday basis. This is an area which needs to be more thoroughly discussed in order to develop both theoretical understanding and practical solutions in the field of design management. Through the findings of my study I will discuss a frame of understanding every day situations in organizations involving design thinking and methodology, i.e. the actions taken by organizational members in relation to ideas and practice informed by design methodology.

Theoretical framework - Design Thinking

In design discourse, searches for the etymological meaning of the concept of design sometimes serve as starting point for a fruitful contextualisation of the research matters at hand (see for example Julier 2000, Johansson 2006). In its noun form, *a design* connotes a both a finished product and the plan made to reach one's objectives. As a verb, *to design* allude a process that marks, prescribes or creates something. In Sweden the usage of the concept of design outside academia have had a strong leaning towards the former. Design in everyday language has mainly been used to describe the aesthetic qualities and shape of objects. Other constructs in the Swedish language have been used instead. However, as of recently, the latter use have increased. But it is still important to note that the concept

of *to design* – a process view – is a rather recent construct in use and that the notion of design still might be rather one sided in the every-day life of practitioners.

My own interest in design thinking lies in the process thinking that can be traced to the techniques and methodology used by industrial designers. As Landqvist (2001) points out, the (design) methods and processes frames all the practical and creative elements, but they are still pre-requisites for one another. Design competence is thus being able to systematically use an ability to handle and gather collected knowledge and secondly visualize your own and as well as other people's ideas.

At first sight many descriptions of the processes that constitute design methodology might resemble methods used by other groups within the organizational setting (see for example Lawson 1997, Landqvist 2001, Österlin 2003). However, many who take part in the discourse also points out that the uniqueness of design methodology is its holistic approach. One way of describing the difference between a designer and other professions might be to stress the level of specialization. To work with design is being able to unite different types of specialized knowledge so that the sum becomes greater than the parts.

In the context of Sweden, Johansson (2006a, 2006b) have pointed out that when organizations meet designers, the question at hand often seems to be how to integrate design thinking with other models of thought, such as engineering and business administration. Lawson (1997) points out that a classical way of thinking within engineering often focuses on solutions of specific problems. These problems are solved “methodically” in a step by step fashion until some sort of solution, an end result, comes forth. Design thinking and methodology, on the other hand, pays much more attention to a desired final result and how to reach ones objectives accordingly. It can thus be argued that one benefit emanating from design methodology is a possible increase in control of the desired end result. The reason for this perceived difference might be subject to debate, but a very interesting opinion has been put forward by both Rosell (1990) and Lawson (1997). It is argued that the different types of professional training received by designers and engineers will cause them to make sense of and thus

act upon the same type of situations differently. In my own ongoing research project I have numerous times encountered both designers and engineers that in our discussions have told me similar experiences. Perceived fundamental differences on “how they go about their business” is often stressed.

One of the important distinctions of a designer is thus his or her way of thinking. Rosell (1990) points out three thought patterns. The rational thinking is what dominates most of today’s society, and is taught in academic studies in engineering (as well as in management – my note). Secondly, we have the innovative thinking, which mainly takes part in our sub-conscious mind. In order to gain “access” to it we need to get rid of the mental blockings that stop us from take advantage of our abilities. Thirdly, artistic thinking is based on our intuition. It is stated that rational thinking cannot solve all the problems we face in our everyday reality, since these are far too complex to grasp. Instead we ought to accept that complex matters such as concepts and holistic decisions might need to be treated differently, i.e. with the two latter ways of thinking as our guide. However, this is not the way engineers are trained.

A paradox regarding design methodology is whether the whole can be decided without knowledge of the parts. Ideally, the designer’s way of dealing with this is moving back and forth between the whole picture and its parts, thus gaining a deeper knowledge of and feeling for the overall system. The engineers as a group, who once in history were more inclined to intuition, have due to the increased level of specialization and the paradigmatic ideals of rationality and objectivity, lost sight of many aspects that deal with holistic approaches and human interaction.

When the design process in itself is described in the discourse we either meet descriptive or normative contributions. Either way, it is usually a highly idealised situation we meet, a number of re-occurring features to be found in many of the different processes tagged under the moniker of design. One way of describing these common elements is for example made by Johansson (2006b), where we learn that the first phase is the gathering of information, followed by an analysis, which leads to the next phase

where suggestions of possible solutions are produced and scrutinized. Finally, a number of suggestions are presented.

When working with other professions designers may benefit from sessions of brainstorming according to both Landqvist (2001) and Österlin (2003). In these sessions one can try to take advantage of combined fantasy and experience of all the involved, thus trying to overcome the previously mentioned mental blockings. Another method is functional analysis, whereby the initial point of entry is *all* the desired functions of a specific project and the aim is to find solutions to accommodate both practical and ergonomic requirements, as well as aesthetic ones. But, as it is stated by Rosell (1990), holistic solutions are seldom easy to grasp, even less so to handle. As both Bruce and Bessant (2002) and Johansson (2006b) points out, the visual tends to be the most common practical technique used among designers to cope with this. The visualisation in design methodology serves not only to communicative purposes of non-linear and multi-dimensional ideas difficult to verbalize, it also helps the involved to embody their own thoughts (Lawson 1997).

The design process might in rare cases be linear, but we usually see one or more loops of learning where those involved go back to an earlier phase in the process. However, it is not my intention to take part in any debate on “best design practice”, since these types of discussions often interest themselves in the scope and linear positioning of specific techniques and methods, often emanating from rather specific business contexts. Nonetheless, it is noteworthy that many a description in the field of design management tends to be normative, searching for an essence which, if it at all exists and with the above discussion in mind, ought to be almost impossible to capture. It is therefore of much more interest to conclude that the elements of design methodology *are constantly being organized* by those partaking in the design process. Thus, design thinking and methodology are more than being just a process; it is rather processes of becoming.

Methodology

The study was conducted in a Swedish high tech company focused on development of hard- and software products for the automotive industry during autumn 2006 and spring 2007 as part of my doctoral thesis project. The company took part in the Swedish National Design Program 2003-2005, a public project aiming at economic development and growth through design (for a thorough explanation of the program, see Johansson & Persson 2007) and involved design management analysis and the work of a designer in their activities. In the beginning of their involvement with design thinking, the company was a small firm with 5 employees, and it has to date expanded to well over 70 employees on two continents (Europe and North America), most of who are between 25 and 35 in age. Naturally, a substantial increase in turnover also followed with the development. The company was chosen because the management strongly attributed their involvement with and inspiration from design thinking as a key factor in the development, and also claimed the need to keep design as a key concept in the company's future activities.

From a constructionist point of view (Berger & Luckmann 1967) I entered the research project and my initial curiosity was sparked by how and why various organizational members might construct and make sense of their activities in relation to notions of design and design thinking. As Weick (2001) points out, reality is an ongoing process and we make sense of and act upon it based on flows emanating from the past. People seek some sort of order in these flows by social comparisons, expectations and actions, thus rationalizing their reality. In short, the interest at hand was to study the in-prints design thinking and methodology leaves in the every day activities of an organization. Inspired by Kunda (1992) and other similar research, aiming to understand organizational every day life, an ethnographical approach was taken. Fetterman (1998) notes that ethnography is the art of describing a group or a culture. Prasad (2005) also points out that every day experiences of those involved is of interest and that we reach these when paying attention to the layers upon layers of sense-making that occurs in every specific context.

Inspired by the narrative approach in ethnography (see for example Czarniawska 2004, Kostera 2005), the study included me being on site, interacting with the staff through informal conversations, semi-structured interviews, as well as observing every day activities. By trying to be like an inquisitive intern, the aim was to gather narratives that revealed something of the perceived organizational reality.

Empirical findings

During the first visit at the company's facilities, a meeting was set up with parts of the management and some other staff members. The founder and CEO, a man who in my opinion immediately seemed to embody the very anti-thesis of being uptight, smiled a wide grin and started telling their. As it were, during the initial stages of their involvement with the Swedish National Design Program 2003-2005, they first met with a design management analysis consultant. This immediately struck a cord and cooperation with an industrial designer was initiated in order to develop the business concept, both regarding company identity and products in themselves. When the CEO explained why this seemed a good idea he used a very interesting way of making his point come across:

“You know, all of a sudden we had to ask ourselves whether we were Metallica or Beatles. At least I had never thought in that way before...”

A good-natured murmur and slightly nodding heads from the other staff members followed this statement. Thus, it immediately became obvious that there was something in the way design thinking addressed problems that attracted to this group. As it were, when time progressed, the company did no longer use the service of a trained industrial designer on a daily basis. But, the management of the company explained, their design encounter must not be under-estimated and attributes a great deal of the development to organizational activities based on new patterns of thinking emanating from influences from design methodology. A typical quote illustrating this comes from the logistics manager:

“For me, design is adaptation, something where the purpose is clear. To think of simplicity in terms of how a product can be used. But how to manage a situation where we aim for this, hmm, that is a really good question to ask oneself... We have been thinking more and more of this, as of lately. We need to think of the customer, both when it comes to software and hardware - how we give our products an overall package. The need to think of this has set some sort of standard around here... We need to meet the requirements; we need to try to capture ideas, thoughts and wishes... ”

However, during one of the initial visits, while following the communications manager around in order to better get to know the company, a young man later affectionately referred to as “my design lieutenant – the man who makes sure we don’t forget our design objectives” by the CEO, an interesting phenomenon occurred. We had been small talking for a while and decided that it could be a good opportunity to better introduce me to a couple of the engineers in the staff. After the initial meet and greet procedures, the discussion turned towards design. The communications manager turned towards the engineers and said: *“Why don’t you tell us how you work with design?”* The engineers suddenly got a very puzzled and bewildered look and an awkward silence spread in the room. After a while one of them said: *“Well, I guess I don’t..., work with design, I mean....”* The other nodded and concluded: *“Nope!”* By now the communications manager looked flabbergasted and almost cried out:

“Hey, you guys know we work with design in this company, don’t you?! We really do, and it has been really important for us!”

In the discussion that followed, it soon became apparent that the word design itself never really was a concept that the engineers linked to their own work, even though they were aware of it being part of the company’s strategy. Beside this occurrence, it became clear as time progressed that the usage of the design concept as such never seemed to be an important issue in itself in the every day activities outside the managerial group. The staff communicated with each other and with the management in forms most comfortable to themselves, i.e. in their ‘engineering language’. Instead the employees, the

bulk of which are highly educated engineers, related to their organizational reality as various ways of organizing and conducting product development and thus discussed accordingly. As long as everyone got their message across and the work done, it off course posed no problem for them.

For research-purposes things immediately became a bit more complicated. The obvious point of entry to the interaction in the field was no longer as clearly visible. The focal point of research thus had to direct itself toward discernible patterns of thought inherent in the sense-making processes surrounding every day organizing in order to find traces of design thinking. However, when describing their work, several engineers compared their current situation with previous employers. As it turned out, the same type of reflection often seemed to occur. An engineer whose main task consisted of various types of hardware testing had this to say:

“I never really took part in a development projects before, it was more simple support where I just communicated the results... I didn’t have the same insight into details. That’s what’s interesting here ‘cause here I sit next to the development team. If you find a bug you communicate directly with them, you know, and learn something in the process...”

This view was not shared by all, though as it was expressed by a different engineer on a couple of occasions:

“We really ought to decide how to do things, once and for all. Sure, we can be creative, but you’ve got to put the foot down sometimes. I mean, a product ought to be tested a certain number of times so that we know for certain that it functions properly. I want to know what to expect!”

“You know, this is really a bit stressful. It’s a bit difficult to plan ahead when we can’t have a certain way of doing things, when the project groups vary on a weekly basis in order to work with whatever management priorities at the moment.”

While staying at the company, I thus noticed that when various ways of doing things were discussed between management and employees and amongst the employees themselves, certain aspects of organizing were taken-for-granted to a higher degree while others, even though fruitful in their outcome, created unease and were contested. In my reading these statements indicate that contextual work, however exciting, clashed with some sort of desired want to foresee whatever tasks that might lie ahead. In the first category one could usually find more traditional ideas emanating from the technology and business administration discourses, while the latter contained many of the ideas drawn from design methodology.

Interestingly enough, both these types of categories often seemed to appear in the same discussions. A typical way of reasoning and making sense of the organizational reality can be found in a rather lengthy portion of a conversation, where a managerial staff member, the CFO, discusses his views on how the company should structure their processes in order to meet the requirements of a desired quality system currently being implemented in order to acquire an ISO-certification:

“Well, to have enough structure is to have a feeling of order, to be able to have the same type of expectations in the organization concerning what is needed to be able to do this or that, to be able to make a decision.”

When asked how this can be achieved, he laughingly answered: *“Through an elastic bureaucratic system!”* When elaborating what he meant, he gave the following example:

“No honestly, it’s like a quality system available on the company intranet, where everyone can see the overarching processes, most important points of decision and

what kind of information one need to take the decisions. But! It can't be a system that excludes that one does things differently if needed. Let's say that a normal process costs 10 million and has 6 tollgates. If a small opportunity appears and you see that it only needs three or four tollgates – let's just skip the others, as long as we document what we do. The thing is, if you document what you do, it's still within the system, as long as you don't ignore it. “

Apparently, an interpretation of this quote is that the system is important in itself, more or less for its own sake. However, later on in the same discussion, the idea of a system in itself became more questioned:

“It can't be more important with a bureaucratic system if it produces crap. For us it is the opposite. It should be supportive, helping us to be effective in order to produce the right products. And, if we have diverted from the required procedure, then the current attitude around here is that we are immature in our use of the system... well, and then I guess it's rather the system that's at fault. If so, we have to adopt the system to be more supportive...”

Here the interest shifts towards what the system actually can do for those involved. The attitude towards the idea of a process seems a lot more flexible. More possibilities than one might actually exist...

Analysis

How then, can one analyse this material? There are off course a number of ways possible. As visible in the material, we notice that there seems to have been an introduction of new and unfamiliar ways of doing things, which needs to be addressed. This might very well serve as a starting point for any discussion. It is also evident that the company has grown rapidly in a short time-span and that there still seems to be a lack of structures to match this. Hence, both structural and human relations

perspectives might be used. A third possibility, especially concerning the last discussion which touched upon an ISO-system, might lead us to consider how aspects of legitimacy influence daily activities (and possibilities) from an institutional view.

However, even though all of the above seem valid in order to get the full picture, I have chosen to instead focus on the interest at hand, i.e. how the logics of design interact with other logics in every day organizational activities. This discussion will thus be inspired by Latour (1998), who concluded that researchers ought to search for performative, rather than ostensive, definitions. In discussions concerning how organizational scholars might relate to these concepts, Czarniawska (1993, 2005) points out that ostensive definitions make the researcher portray the organization as a discernible unit, comparable to physical objects. The actors accordingly act like the organization exists independently of them. The researcher is better equipped to describe the organization than the actors and there is *one* correct description to be made. Performative definitions on the other hand, show an organization as contextual and consisting of socially constructed views. Actors construct their organization through their actions based on interpretations of the perceived organizational reality. Since performative definitions give a multitude of possible descriptions, these can only be compared aesthetically or pragmatically. As a consequence, research done from a constructionist point of view pay attention to these performative aspects. Hence, Czarniawska points to the fact that not only researchers, but also people working in organizations have different epistemologies. It is thus fruitful to examine this in order to see how organizational reality is constructed, and accordingly, made sense of.

So? What about the logics at play? Where does design thinking and methodology, as well as engineering thinking and managerial thinking, fit into all of this? A possible way to describe them is that the logics at play are performative views, manifested through the design thinking, and ostensive views, found in many of the traditional taken-for-granted ways of doing things, i.e. engineering thinking and managerial thinking. These inform the basis of action when it comes to handling design related issues in the organizational every day reality of the company. Alas, the question that comes to

mind is therefore what these figures of thought do with the individuals who wrestle with them, i.e. how they influence every day sense-making?

Thinking influenced by ostensive views might be described as striving for once and for all, typically through specialization, finding an optimal way of doing things. Thus in theory, once a best practice or ultimate state is reached a desired situation of 'status quo' ought to occur, in which no further improvements or changes are needed. Sense-making and actions striving for such finality differ considerably from the earlier described design thinking and methodology. Logics of this sort might therefore be said to be *finite* since they, at least theoretically, strive for a terminal point.

But what about bounded rationality, the alert reader might ask? Didn't Simon (1947, 1996) conclude that we all must act according to satisficing goals rather than maximizing ones? Well, to talk of a bounded rationality implicitly states that there in fact is a theoretical possibility of a full rationality that we can strive for. If instead performative views of reality are the basis for sense-making and action we note that there is no such thing. Instead of searching for a finite state, these logics disregard taken-for-granted notions of rationality to a higher degree by being including and accepting towards phenomena such as holism and intuition. Thus, a performative view doesn't shun the contextual and multiplicity in any given situation, i.e. it opens up to a possible multitude of constructs. This type of logic instead uses the question 'why?' to continuously reconsider reality. Hence, through this constantly reconsidered sense-making it can be said to be an *infinite* logic.

As shown in the empirical material, infinite logics might be a source of inspiration, but they can also create a sense of uncertainty and unease. Considering that the employees to large extent have a rather similar background, we might want to consider what type of professional training they have received. It might be rather safe to assume that much of this training, i.e. higher studies in engineering and management, influence how the organizational reality is made sense of. If a person has learnt to look upon their professional life with an ostensive view, it is not surprising that the introduction of performative views might shake these taken-for-granted foundations. One can thus see the

introduction of design thinking and methodology as an epistemological iconoclast, which easily causes discomfort, no matter how apparent the ideas are grounded in organizational structures and routines. Any resistance towards design thinking and methodology must therefore not only be considered as resistance towards new ideas and fear of the unknown, since it may be something much more deeply rooted in the employees.

Even more interesting, sometimes infinite and finite logics seemingly coexist at the same time within the same person. By the looks of it, they interact as some sort of checks and balances on one another. Not so surprisingly, finite logics tame some of the wildest ideas and makes individuals strive for something that is not perceived as chaos. The presences of infinite logics, on the other hand, seem to make individuals question, as we could see in the case with the CFO, taken-for-granted constructs to a higher degree. When the latter happens, a change in sense-making might be said to occur. To put it simply, how this change from finite to infinite logics happen and how this can be stimulated ought to be of great interest for anyone interested in the integration of design thinking and methodology in everyday organizational activities.

Conclusions

If the design management discourse is considered from these points of view as discussed above a couple of things immediately become discernible. Firstly, the discourse pays little attention to design as a way of thinking. Unfortunately too often it is just concluded that design needs acceptance by and support from the management (or less frequent; from a certain group of specialized professionals) in order to reach its full capacity as a useful resource. However, as we have seen in the empirical material, this is unfortunately not enough. Even though we do the best we can with the knowledge at hand, situations might still occur where uncertainty and unease will rise among the staff due to their encounter with design thinking.

Secondly, if we pay more attention to how design thinking interacts on an individual level in every day organizational life we might better understand the problems arising from the logics at play. Hopefully

we might be able to find ways of handling coexistence between various ways of making sense of organizational reality and draw benefits from logics that make us more open and alert. If so, this then gives us a better chance of implementing the benefits of design without the stress it otherwise can cause.

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