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Article

Bad Enough Ergonomics: A Case Study of an Office Chair

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Abstract

The article analyzes ergonomics as a social and cultural phenomenon, as something that is formulated and described by speakers in a specific social context; in a company that is specialized in producing ergonomic office furniture. Through a case study of an office chair, the article examines how ergonomics and its association with the vision of the potential users and their working spaces are constructed by the relevant actors in project meetings and individual interviews during the manufacturing process. The article is concerned with how, in the process of producing an office chair, the chair gains an identity of an aesthetic design object and how this comes to mean the reformulation of the idea of ergonomics. The empirical analysis also provides insight into how the somewhat grand discourses of soft capitalism or aesthetic economy are not abstract, but very much grounded in everyday practices of an organization. The article establishes how the vision shared by all the relevant actors invites active, flexible, and cooperative end-users and how the vision also has potential material effects. The research is an ethnographically inspired case study that draws ideas from discursive psychology.

Keywords

office furniture, ergonomics, discursive psychology, ethnography, design, office work, soft capitalism, aesthetic economy

Future workplaces will be affected by the pressures of rapid technological change, aging population, and declining workforce, and consequently, many scholars agree that ergonomics needs to gain more relevance at workplaces (Brewer & Hsiang, 2002; Caple, 2008; Charness, 2008; Charness & Holley, 2004; Croasmun, 2004; Dul et al., 2012; Kumashiro, 2000; Schwoerer & May, 1996; Walker, 2006). This is especially true in the case of office work as most offices have undergone, and will most likely undergo, extensive changes when it comes to adopting new technologies and products. Although academics and policy makers might agree that there is a real need to develop the practice of ergonomics, there may be other contradictory developments in modern culture that are also reflected in the organizational culture as well as design culture, and those may in fact diminish the role played by the practice and understanding of ergonomics.

The object of this study is not ergonomics as such; rather, it is understood as a cultural idea and resource that actors can utilize for different purposes in different contexts. The article analyzes how the vision of ergonomics is constructed during a manufacturing process in a company that specializes in producing ergonomic office furniture and products, and how this vision is intertwined with certain conceptions of office workers and work spaces.

Those who design and produce material objects and interior design concepts to organizational settings anticipate how their products will be interacted with, and how they will fit within specific spaces (Dant, 2008). The vision of the role of ergonomics, and the related visions of future workers and work environments act as tools that help organize design knowledge to create a shared conception and consensus of the aims of specific projects. In addition, the visions of future office workers and office environments do not just reflect reality but actively strive to shape it and contribute to creating that reality (Pollock & Williams, 2010). The idea that the producers' and designers' intentions and ideas are in some ways embodied in the design and also responded to by the users (see Koskinen, 2006; Koskinen, 2007; Mazé & Redström, 2007; Silverstone & Haddon, 1996; Tiles & Oberdiek, 1995) is not new, but there is still a lack of empirical research that identifies the practices and arguments which aim to freeze these visions and intentions into certain kind of office spaces and furniture.

Analyzing the material and aesthetic dimensions of modern organizational culture has lately become a rich and growing field of critical research (see, for example, Chugh & Hancock, 2009; Cohen, 2010; Dale, 2005; Dean, 2005;

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Gabriel, 2005; Gabriel & Lang, 2008; Gregory, 2011; Hancock & Tyler, 2007; Lopez, 2010; Rafaeli & Vilnai-Yavetz, 2004; Strati & deMontoux, 2002; Valtonen, 2012; Witz, Warhurst, & Nickson, 2003). This field of research shows how the design of objects and spatial settings for modern organizations is also a physical embodiment of a specific organization's culture and values. Sometimes, the display of things and people is identified as presenting the values of "knowledgeable capitalism" or "soft capitalism" (Chugh & Hancock, 2009; Heelas, 2002, pp. 81-83; Thrift, 2005, pp. 20-47) or "aesthetic economy" (Böhme, 2003; Entwistle, 2009), while highlighting the soft characteristic of modern work life: creativity, inspiration, emotions, and aesthetics. Indeed, it would be naive to assume that the visions the designers and producers promote would be somehow isolated from larger cultural and societal values and discourses. However, as part of this developing field of research, the reformulation of ergonomics has yet not gained attention, and this article aims to shed light on the specific meanings of ergonomics and their possible consequences through a case study of an office chair.

Central to the literature concerning soft capitalism is the proposition that it is a form of capitalism that puts emphasis on organizations as flexible entities that "go with the flow," always in action and on the move, aiming to produce workers who fit this type of an organization. Flexible organizations aim to recreate themselves by attempting to generate new traditions and representations of themselves and the world, instead of accepting established knowledge. In fact, the refusal of established knowledge is the basic premise on which these organizations are built. Also, one form of this recreation is to promote new kinds of office buildings that materialize and demonstrate the new flexible organization usually by trying to maximize social interaction and innovation (Thrift, 2005). The rhetoric of soft capitalism is the rhetoric of caring and sharing (Thrift, 2005), and it is concerned, as already mentioned, with beauty, emotions, and playfulness (Chugh & Hancock, 2009). It strives to enhance commitment and motivation (Heelas, 2002, p. 81), and tries to create new slogans, transform information and knowledge to find "fresh" ways to motivate employees and attract customers. This rhetoric identifies the success of an organization to lie with culture, narratives, knowledge, and creativity rather than with technologies, rationality, and cost–benefit calculations even though its practices have a strong utilitarian dimension, and it is basically an attempt, as Paul Heelas (2002) notes, to instrumentalize these soft values for economic ends.

The literature concerning soft capitalism has some important resonances with the work of Gernot Böhme (2003) as is also pointed out by Shalene Chugh and Hancock (2009). Böhme comes to the conclusion that we have entered into an advanced phase of capitalism which may be characterized by an aesthetic economy. By this, he means that the aesthetic qualities of commodities have developed into an autonomous value, a new type of use value. What is central here is the way commodities can be attractive, add new feeling to places, spaces, and people, and "serve to stage, costume and intensify life" (Böhme, 2003, p. 72).

Böhme also introduces the concept of aesthetic labor which refers to all those practices that "aim to give an appearance to things and people, cities and landscapes, to endow them with an aura, to lend them an atmosphere," and according to Böhme, this concept encompasses all human activities, be it the activities of artists, designers, or producers, that aim to "lend to things, people and ensembles that *more* which goes beyond their handiness and objective presence." Aesthetic laborers take part in the process of creating a new value, a staging value, and here Böhme also expands the definition of aesthetic labor to include more than just embodied self-presentations of employees. He casts light on the importance of analyzing the process of creating staging value with all its practices, things, and people who interact to create this something *more* (Chugh & Hancock, 2009). Joanne Entwistle (2002, 2009) has also argued in favor of that view, stating that although some research has been carried out on the market conditions under which different cultural artifacts with an aesthetic value are produced, there is currently a lack of empirical work within different fields of cultural production and services to allow us to truly map the diversity of practices in which the aesthetic value is produced. And it is precisely this process that my article discusses. The objective of the article is how, in the process of producing an office chair, the chair gains an identity of a special aesthetic design object that has this something *more*, and how this also comes to mean the reformulation of the idea of ergonomics. The empirical analysis also aims to demonstrate how the somewhat grand discourses of soft capitalism or aesthetic economy are not mere abstractions but very much grounded in the everyday practices and discourses of an organization.

The article proceeds as follows. Before representing the results of the case study, I will discuss, in brief, ergonomics as a historical and cultural idea. After that, the methodological approach and the data used will be introduced in short. The construction of a new vision is analyzed in detail in the subsequent sections. The last section of analysis aims at examining how the chair can be analyzed as an embodiment of the new vision. In the concluding section, I present and discuss the central findings.

The Idea of Ergonomics

Most often, "ergonomics" refers to a biomedical framework which focuses on the measurable qualities of human–environment interaction and the resultant stress to the body. However, organizational and social issues that did not traditionally exist in the core of ergonomics have lately been considered to be gaining more relevance; therefore, the integration of social scientific knowledge with ergonomics has increased (Moray, 2008). For example, over the last few

years, a field of ergonomics called macroergonomics, which aims at creating certain novel guidelines for the practice of ergonomics, has been gaining more importance (Caldwell, 2008; Haro & Kleiner, 2008; Theberge & Neumann, 2010). It recognizes, among other things, the importance of organizational culture, history, and goals and is also concerned with the actual design processes of products and the organizations' environments. Yet, ergonomics and design as changing cultural phenomenon in capitalism have so far not attracted attention in empirical studies.

Work on chair comfort was started in earnest in the 1940s and 1950s, around the same time as the term *ergonomics* was introduced. However, the background for the idea of ergonomics can be identified in the F.W. Taylor's scientific management and in the war efforts. As new weaponry was rushed into mass production, it was soon realized that design decisions affected performance and reliability in a major way (Peteri, 2004; Pheasant, 1996). Scientific management promoted the idea of different tasks being divided among experts and different experts being separated spatially and seated in different types of chairs. This idea developed into a hierarchical organization of chairs which has had a long-lasting effect on office chair design. Typically, general office workers, executives, and managers sit in chairs that reflect their status in the company (Olivares, 2011).

After the Second World War in Great Britain, a group consisting of members who had backgrounds in engineering, medicine, and human sciences formed a society that was to study "human beings in their working environment," and the society came up with the word "ergonomics" to describe what they were doing. All the members of the society had been involved in research concerning the capacities of soldiers (Pheasant, 1996). After the First and Second World Wars, the cultural notion of "mental health" started to change, as many soldiers were suffering from various psychological symptoms that had before the wars been considered biological and more or less preexisting weaknesses in the personality. It was realized that stressful circumstances can produce "shell shock," temporary psychotic symptoms (Crocq, 2005; Jarvis, 2009; Peteri, 2004; Rae, 2007). After the wars, this new knowledge was taken into account when designing workplaces and tools that would improve ergonomics (Peteri, 2004).

Interest in ergonomics increased even further after the first commercial computers based on transistors arrived. Researchers who were interested in "human factors" started to analyze people's cognitive styles and system design concerning computers in the late 1960s and through the 1970s (Grudin, 2006, pp. 405-407). Before the mid-1980s, ergonomic furniture design focused on supporting the body; but from the mid-1980s, ergonomic design had to support the body for 8 consecutive hours of seated PC use. At that time, the Council of the European Union passed legislation that set minimum ergonomic standards to be met in the workplace. This originated partly from an increased public awareness of consumer goods' ability to either support or prevent health and wellness—whether they were food, cigarettes, cars, or office chairs (Olivares, 2011).

However, products were designed with the users' point of view in mind even before the 1940s. The fact that things such as chairs to sit and relax on have existed is a good example of that. Already in the Victorian era, furniture called patent seating was developed to prevent spinal ill health. The patent seating led the way for ergonomic furniture already 120 years before ergonomics as a term was coined. However, the Victorian culture failed to appreciate the chair that was to assist posture, and it was considered vulgar for anyone else than the elderly or the disabled to use. In the Victorian era, maintaining a dignified and upright posture specifically *without* the help and support of furniture demonstrated morality, sophistication, and willpower (Pynt & Higgs, 2008). This example further proves how good usability and ergonomics, which were of course not the terms used at that time, are not fixed and objective facts but culturally and historically shaped.

In the late 19th century, the American architect Louis Sullivan (1896) became famous for presenting the idea that it is actually a natural law that form should always follow function, indicating that the functional considerations should determine the design of an object. However, in practice the products designed by the representatives of the Modern Movement were not that "user-centred"; rather, the early "functionalism" came to mean just the lack of ornamentation:

> According to this theory, functional objects are, of necessity, aesthetically pleasing. This is called "functionalism." It was the dominant theory underlying the so-called "Modern Movement" in design. When we consider such modern classics as the Marcel Breuer "Wassily" chair (1925) or the Mies van der Rohe "Barcelona" chair (1929) we find very little relationship between the form of these seats and that of the human body which it is (presumably) their function to support. The fact that such pieces are commonly referred to as "occasional chairs" implies that they are without particular function— except to be used "occasionally." (Pheasant, 1996, p. 9)

The so-called Postmodern Movement in Arts argued against the central ideas of functionalism. Corin Hughes-Stanton (1968) claimed that postmodernism was less "anti-puritanical and more humanistic than the modern school," and it means that "we may no longer (to give a single example) have to choose between ergonomic but clinically dull cars, and pleasure-giving but dangerous cars" (p. 43). In his vision, postmodernism not only produced more variety, decoration, playfulness, and flamboyance in design but also acknowledged the importance of ergonomics. It is quite interesting how in this context "modernism," with its striving for designs that would serve a purpose for its users, is now associated with antihumanism that ignores "all those other human needs that give so much pleasure and satisfaction."

In the 21st century, claims have emerged that follow the basic argument of postmodernists and develop it a bit further by arguing that aesthetically pleasing is actually naturally functional. This argument goes on to say that functionality should follow the form, as pleasurable objects are *naturally* good for the users. Furthermore, it is argued that modern design places far too much emphasis on usability and not enough on the aesthetics that promote enjoyment and pleasure (e.g., Blythe & Wright, 2003; Norman, 2004; Tractinsky, 2006). Donald Norman, who has been one of the most prominent advocates of user-centered design, has previously argued (Norman, 1998) that the usability of everyday things is the most important aspect of design. Recently, Norman has claimed that the emotional aspect may after all be more important, and that if things are attractive, they usually work better. From that follows that as the products make people happier, people will also become more creative and innovative in their work (Norman, 2004). Lately, the idea (also familiar from the rhetoric of the so-called soft capitalism) that aesthetically pleasing, good looking, or "cool" office design promotes inventions and inspiration has been widely embraced by the business sector (e.g. Howell Hirt, 2012; Youshaei, 2012), and when searching for information on the Internet using search terms such as "good office design," it soon becomes clear that especially information technology (IT), advertising, and media companies such as Facebook, Skype, Pixar, and Google are presented as leading the way for this line of thinking.

By analyzing how my informants talk about ergonomics in this study, I do not try to classify them as advocates of a certain view of ergonomics. The interviewees employ existing and emergent cultural notions of ergonomics as conceptual resources by which they justify their notions. The history of the idea of ergonomics and the writings related to soft capitalism are relevant, because they provide background for the interviewees' comments analyzed here. Economic forces are at the core of ergonomics as they bring in the claims for humans to adapt to working environments. Even though ergonomics represents the "humanitarian argument in organisation studies" (Hofbauer, 2000), from a sociological perspective it is also an ideological practice, which shapes bodies, actions, and social relations.

Research Material and the Methodological Approach

When I became interested in the practice of ergonomics in the field of industrial design, especially in the context of modern offices, I contacted a company that specializes in ergonomic office furniture. I requested a permission from the company's directors to gather information of their design practices. Soon, I got an approval to join in and follow a design process that we (the company's product manager, one of the company's designers and I) decided would most probably be completed within the time that I had funding for this research project (2009-2012) and which the product manager also described as "a very interesting case."

I did not inform the company's directors in advance that I was specifically interested in the practice of ergonomics, as I already knew it to be their specialist field. Much to my surprise, when I inquired about the ergonomic practices of the company or of the different actors, the informants looked mostly bewildered and/or uncomfortable and at times even irritated. At first, I was at least as bewildered as my informants. As ergonomics concerning office furniture means two different things, first, laboratory tests to prove that the product passes the requirements of ergonomic standards, and second, the designer's and the team's expertise to produce a suitable chair for certain chosen situations and work tasks, much of this knowledge is either standardized or probably taken for granted, and therefore, difficult to articulate. It was only later that I came to realize that maybe this very awkwardness itself contained something interesting, something worth reflecting on.

My research is an ethnographically inspired case study of an office chair. The fieldwork period lasted from September 2009 to summer 2012, and included observations about and interviews at an organization, which specializes in producing ergonomic office furniture and products. To get to know the company, I began by exploring the company's annual reports (2007-2008), and during the project, I continually followed its website, Facebook page, and everything that was written about it in magazines and newspapers. The fieldwork in the company consisted of informal discussions regarding the organization's design practices, studying documents expressing the guidelines for design and manufacture as well as interviews with relevant actors. The project team that worked on manufacturing this office chair consisted of several engineers, two people from the marketing department, a marketing director, project manager, technical designer, and industrial designer. The industrial designer was hired from outside the company to work on this particular office chair. The interviews took place either in the industrial designer's firm, the company's head office, or in one of the company's factories where the actual production, product development meetings, and different laboratory tests took place.

For the purposes of this article, data that consist of informal meetings and discussions, individual interviews with the designer of the chair, the company's product manager, the design director, and the design manager, along with the meetings with the project team, have been analyzed. Altogether, the data consist of 15 meetings that were not recorded (these took place in the company's laboratory, company's restaurant or during car journeys from the company's head office to the factory) and of seven individual interviews and five meetings of the project team that were recorded and transcribed. The individual interviews lasted from 1 to 2 hr, and the meetings with the project team lasted from 1 to 3 hr. The data also include a film lasting 30 min, where the designer explains and sketches out the design process. This film was originally made for the

staff who are involved in the production or selling of the products to "make them more motivated and involved in the project," as described by the product manager in an interview. The more informal discussions that were not recorded were written down as field notes. For the purposes of this article, whenever possible, I tried to find the data samples from the data that were transcribed, so that I could show word for word how informants described or justified something.

In addition, the data contain notes from project meetings written by the technical designer, and a business abstract of the chair (18 PowerPoint slides) created and written by the product manager. The business abstract includes a "product portfolio," which is an artifact used to evaluate, define, and justify the place of the product in relation to the company's other products and to similar products produced by competitors. The portfolio is utilized to define the market "slot" the product is intended for: which kinds of environments it is designed for, and what the design and price indicate of its place among other products. The data also include photos and field notes of the international Stockholm Furniture Fair where the specific chair was introduced and marketed for the first time.

The analytic approach has derived some ideas from discursive psychology. According to discursive psychology, artifacts can be perceived as having invitation and inhibition toward certain kinds of actions. An article by Brown and Middleton (2006) draws basic ideas from discursive psychology, and they assume the position that artifacts can be conceived as material frameworks, which either enable or constrain certain discourses or practices. They add that it is reasonable to assume that objects place limits on the ways they can be described and constructed in a discourse, but they do not exist "just there." Instead of assuming that there exists a given object world, which people describe through "things as they are," they state that artifacts and workplace communication can be approached by analyzing "how they are formulated and described by speakers," and thus "the mutual orientation of speakers to things is a discursive accomplishment, which can be studied as such" (Brown & Middleton, 2006, pp. 195-196). According to this point of view, ergonomic knowledge is something that speakers and actors construct in talk and use as a linguistic resource rather than just possess. Hence, a focus on constructions in talk requires the recognition of discourse as "strategies and meanings" constructed in conversations. Discursive psychology involves looking at the forms of language use, its contents and functions. Through language, we find ways to speak about objects and artifacts, which may have potential material effects (Brown, Middleton, & Lightfoot, 2001).

The Chair as a Symbol of Organizational Change

The company in question, which I shall refer to as *Möbel* to preserve its anonymity, is an old Scandinavian family business which designs and produces interior solutions for working environments and public spaces. It is traditionally well known for its high standards of ergonomic furniture and is one of the largest companies in its sector in Europe. The need to modify the brand or the narrative of the organization has developed, as noted by the directors, on the realization that the firm has established itself as a prominent actor in the field of ergonomic office furniture. This vision of the company is so well established that, as *Möbel*'s project manager stated, the vision of good ergonomics has degraded other essential images of the company:

> You have to think of what is an individual product's synergy with our strategy. We have this new slogan that we are launching, *Emotional Places*, which I dig. In my line of work, it has been a burden that *Möbel* is so strongly seen as a company that produces good ergonomic office furniture. When architects design separate spaces for individuals to work on their computers they think of *Möbel*, but when they design lounges, entrance halls and boardrooms, it is a different case. (November 2009)

It was clear from the outset that the manufacturers wanted to produce a chair that would stand for the ongoing organizational change to gain that "synergy with the new strategy," as the project manager stated. The chair and the products to follow would compose a new "product family" and would also advocate a new line of thinking for the whole organization, both outside and inside the organization. In the business abstract, the chair is described as embodying a "classic" line, "emotional design" and "timeless design" that "will easily adapt to different kinds of architectural environments."

The new way of thinking was also explained as distancing the company from the old-fashioned ways of making decisions. One way to pursue this, as I learned from a Scandinavian business magazine, was that the company "snatched" a new design director from a globally well-known IT company. The idea was that the new design director would bring with him a more contemporary line of thinking and making business, and one embodiment of that, as the product manager stated, was the product portfolio that the new design director had created after his arrival. This particular design director described in an interview that the way of thinking in *Möbel* was very old fashioned and brought with it "a social democratic way of making decisions" as opposed to a more "focused way that will also enable more high profile products and no grey mass." This is a discursive tactic known as a "contrast argument" (Edwards & Potter, 1992, p. 163). A speaker makes his version seem like a fact by contrasting it with an alternative that seems unconvincing and like a bad choice.

In an interview, the project manager labeled the "old way" as a "Swedish mode of discussing everything endlessly and listening to everyone, so that before long every idea is vitiated." In a project meeting in spring 2010, the furniture designer also commented on the progress of the project in an ironic manner, and stated that he did not object to "Scandinavian dynamics" as such "if we achieve a deep

commitment," to which the technical designer replied that the slowest part of the process was finally over, and it was time to really get to work. All the key actors of the design process frequently utilized a discursive construction of the "old model" as a rhetorical act that needed no other justifications. It was a discursive resource that articulated, depending on the context, a "natural connection" between the chair and the new brand, or between the chair and a vision of the changing world of modern offices. In these constructions, the old vision is often geographically and politically localized: It is a Swedish or Scandinavian way, the social democratic way of thinking and making things. The new vision does not have a similar kind of explicit geographical location or political identity; although it seems evident that it is not a social democratic view nor is it restricted geographically to Scandinavia. Otherwise, identifying the old vision as Scandinavian and social democratic would be senseless.

Below, the project manager describes the changes in modern work life, which are closely connected to the new vision and design of this specific chair:

> Working is so different nowadays, and people work in so many different places. People work more at home and also, according to a result of a recent research conducted by *Kontor System* [name changed], nowadays, offices are more than just that . . . they are meeting places. Modern work life is very fragmented: people work in different places, they travel, they work in their home offices, and increasingly, office spaces are becoming meeting places, not so much reserved for individual standard work stations anymore. People travel more, and not everyone needs a separate desk. That produces challenges for this collection as well. (…) So you have this lounge-like chair, where you sit in a relaxed manner, and the communication is also different. I believe that the furniture cultivates behaviour so that when you have more casual colours and design, it is not a meeting in a traditional sense anymore; rather, it is a conversation. You can have a small side-table and your laptop on it, you can check something, but you can also sit comfortably. Now you have to sit stiffly on your small chairs at small tables, the four of you. (November 2010)

Based on the data, it seems that the new organizational culture or the brand of the company indicates a new mode of thinking about work environments. As in the excerpt above, they are no longer seen as offices or public spaces or lounges or entrance halls or board rooms, but as the project manager claims, first and foremost, as "meeting places." Thus, the furniture would need to be more relaxed to support and produce freer and more inspirational conversations and meetings. In the excerpt above, modern work life is seen as a collection of fragments and different contexts where one works. The connection between fragmented work tasks and changing workplaces followed by a need to create more places as meeting places is not obvious. One might even suggest that fragmented work life could call for a counterbalance in the form of more separate work stations, but the project manager justifies his visions by referring to recent research. Thus, his views have additional scientific basis and do not seem to require further justification. The director provides details of the situation to emphasize the difference between the old and new models.

The firm *Kontor System* (the name has been changed) that produced the research project, which the project manager uses as a justification for his visions, is a company that provides services for other companies renting office spaces. The research project in question was carried out by several institutions, and *Möbel* was one of the sponsors and collaborators of the project. The companies involved offered the cases for the research project and the cases dealt, for example, with mobility, open plan offices and new work space solutions. In the research report, the cases were then explicitly described as reflecting contemporary working life. This was not a research result as such but adopted as a starting point for the research project. Thus, this is a defining moment for the vision and the design project, because at this point the vision gained a new status and a new identity: It was not only a vision in a utopian sense but it became scientific knowledge. To put it bluntly, the companies fed the research project with visions in the form of case studies that were defined as representing the recent developments of working life and spaces. As quid pro quo, they gain a new status and identity for their visions.

The old world of meetings and meeting spaces is constructed in the excerpt as a situation where people have to "sit stiffly in small chairs." The lounge-like chair, which is traditionally seen as not being intended for sitting on for long durations, is now constructed as the ideal: It is more comfortable, and not only that, but it also produces more civilized behavior. Therefore, the meeting is no longer a traditional meeting but a "conversation." This vision implies a discussion that is free of authoritarian aspects. It is a conversation, where persons meet and share their views.

While the relevant actors represent the old model as an antithesis of the new model of organizational culture, the clear opposition between these models is actually ambiguous when analyzed from a discursive point of view. The old model was referred to, in various contexts of the interview, as a "Swedish" or "Scandinavian" way of discussing things indefinitely, and thereby wasting all chances for creating anything really innovative. The new model seems to call for an attitude toward work where sharing ideas and conversations is the most important and essential element of creating new ideas and innovations. It seems that the old model stands for constant discussions and the new model signifies more conversations and less working alone. The difference seems to be that the new model's conversations take place in more open offices among the designed furniture that is defined as more casual and free spirited. Thus, the workers of the new model have their discussions in full view of everyone, and these conversations are staged by special design furniture.

In the first data sample, the project manager stated that "it has been a burden that *Möbel* is so strongly seen as a company that produces good ergonomic office furniture." Thus, the meanings attached to ergonomics are contradictory. On one hand, it is one of their special fields of expertise and the key element in their success, and on the other hand, it seems to be one of the central reasons they have developed a need to remold their brand and their vision.

The Reformulation of Ergonomics

When I inquired about the industrial designer's vision of modern work spaces as the context for his products, he also utilized the discursive resource of "the old model" of office environments "when the static idea of ergonomics was the central way to perceive things here in Scandinavia" and continues in an ironic manner "people were situated in lines in their own workrooms doing the same work; it was like factory workers in office environments, but now it is more mobile." And just a few sentences later in the interview, he continues describing the office chairs that were created on the basis of this old model:

> They were passive chairs, and the expectation was that a persons' neck and hands were to be in a certain fixed position. I do not believe in that. I believe that the starting point has to be good, but not fixed and static, and a human being herself needs to be active. She has to get up, she has to reach for things, she has to stretch in different directions, and raise her legs up and other things as well. (December 2009)

Interestingly, in this extract, the ergonomic quality of a chair is not constructed solely as a feature of the chair. More emphasis is actually laid on the user of the chair. She has the obligation to take responsibility of the ergonomics of the chair; she has to stay on the move and not expect that the office furniture will take care of her neck or hands. Considered from a realistic point of view, this is a reasonable argument, but when considered from a discursive perspective, the statement raises several questions. First, the construction of an "old model" communicates a vision of office work consisting of monotonous and repeated tasks, which reminds one of factory work. Thus, the new open offices seem to produce more interesting work and duties, whereas separate workrooms encourage monotonous work. The new open office and the furniture that goes with the new office model also allow people to be more mobile and almost guide them to be on the move. Consequently, the ergonomics of a working environment becomes the responsibility of an individual worker. A chair's role in this new setting is to encourage workers to be on the move. A chair needs to be good enough to sit on but not so good that people would enjoy remaining seated for long periods of time. The key element of what might be called "new ergonomics" is actually that the chair needs to be bad enough to encourage its users to get up. The office chairs that have traditionally been considered as ergonomic office chairs with their adjustable armrests, backrests, and headrests are now redefined as passive chairs. Consequently, in the "new ergonomics" the activity or passivity of a chair is not a feature of the chair but of the user.

In the meetings of the project team, the ergonomic quality is very rarely discussed other than when referred to in an ironic manner as belonging to an old-fashioned view on designing for work environments. Once at a project meeting, we got to sit on the prototypes of the chair, and each of us had a chance to make a brief comment on the experience. Mostly the comments could be interpreted as positive or neutral ("very nice" or "like it" or just "mmm"), the only exception being the technical designer who claimed that the chair did not fit his body type. Nobody responded to his comment, not even the designer.

The ergonomic quality of the chair is most explicitly addressed in the film that was produced in spring 2010 to "motivate the employees" who take part in the production or marketing of the chair. In the film, the designer describes a certain feature of the chair that is typical for chairs he has designed, and adds that this is "first of all, ergonomically very well designed" and "enables good sitting position and does not put pressure on the legs." Later in the film, the designer announces that he has hopes of how the products will be marketed, and notes that he wants to say something more about the ergonomics of the chair: "If chairs were chosen by vote, the customers would choose a chair that enables only a passive sitting position." He continues that these chairs "would remind one of children's car seats, which feel safe, but in that position you cannot really move anything but your fingers." He emphasizes the absurdity by acting as being squeezed in a car seat in a position in which he looks like he can only hold his hands above his shoulders and move his fingers.

Apparently the ergonomic quality of a chair is something that cannot be evaluated by the customers. The example of a child's car seat, even though an anecdote, shows that customers' opinions and knowledge of ergonomics are quite infantile, and the customers make choices that might feel "safe" or good. Therefore, the sellers have to give advice, so that customers do not make these easy mistakes. In other words, the customers need to be directed, so that they do not choose products that feel good, but from a designer's point of view, do not function properly in new office environments that need more active users.

The Embodiment of the New Vision of Office Work

The active nature of this specific chair is often mentioned as its most important feature. In practice, the chair is designed to be flexible in a sense that it allows a tiny amount of movement. It is not entirely firm and immobile, not a rocking-chair-like

object, but elastic. This is congruent with the visions that conceptualized workers who are, above all, mobile and share relaxed conversations. The chair itself encourages small movement. It is also consistent with the vision of modern office spaces, in which employees do not have separate work stations but use whatever free space there is in an overall open-space office to either work on their laptops or have a chat with coworkers or customers. Interestingly, this flexibility is never mentioned as ergonomically good even though it enables various sitting positions.

In the business abstract, the chair is described as "a universal chair," which will fit every kind of situation. According to the designer, the flexibility of the chair enables it to be used for several purposes: to work alone on the laptop, to eat lunch, to have a casual conversation in a more relaxed sitting position, or to have a more formal meeting. Also, the fact that the chair is designed to resemble lounge furniture, as explained by the project manager, invites workers to be on the move and not remain seated for long periods of time.

The designer articulates in an individual interview and also in a project meeting in spring 2010 that the design of the chair becomes most apparent when there are many such chairs in the same space. The designer then goes into saying that several of these chairs together produce a "certain balanced rhythm." The project manager also reflects that it is a feature that can even be appreciated from a distance and from outside the office building. Thus, the chairs compose a form that is most distinctive only when viewed from a distance, for example, through large panorama windows. Because of this, the directors decide that several chairs must be tacked high up on a wall as the chair is presented at the international Stockholm Furniture Fair. Otherwise, the "special rhythm" that can only be properly appreciated from afar would not be visible to the customers. This feature seems to specifically suit an open-space office. Thus, it fits in well in office buildings that have glass walls and are staged to be viewed from outside to inside.

When the chair is introduced at the fair, the company gives out a press release in which they state that they are introducing a new vision of modern work life. This is a new practice, since before this the press releases have just introduced specific pieces of furniture. Now, the furniture is mentioned only in brief at the end of the press release. In other words, now the company is selling a vision, and the furniture is in a secondary position. The vision is taking the leading role. The chair is introduced as an illustration of the vision, a materialization of it.

With the production of this chair, the company also establishes several other new practices. The directors and the designer report in individual interviews that in this specific project, all the decision makers (i.e., the directors and the designer) met several times even before starting the cooperation to discuss the characteristics of the new brand and to develop a shared understanding of the vision of new office environments and also of what kind of special know-how they expected the designer to bring along. According to the interviewees, it was unusual for these meetings to take place more than a year before any detailed plans of the specific product existed. The directors explain that they wanted to be sure that the designer grasped their whole vision. Then, the directors made a deal with the designer that he would be present in all the project meetings and would commit his time to make a film where he would explain the story of the chair. These were all new practices.

The project manager explains the need for these new procedures by saying that it is important that the chair is strongly associated with the designer who has won several design prizes, and that it would not be as convincing if the project manager instead of the designer were to explain the meaning of this chair and its position as part of the new brand and vision to the engineers and marketing people. It is much more "motivating" when the designer himself takes part in the meetings and delivers the story. "Stories are vital when you want to make a product sell," clarifies the project manager. Thus, you could say that the directors utilize the designer as a brand managing tool who sells the idea of the new brand to their employees.

In the film, the designer explains the vision of changing work environments, and thus delivers the main idea of the new brand to the employees. He describes how the chair can be recognized as a reflection of this vision. He also narrates how the chair can be identified as his creation, because it has certain details that resemble some features of northern nature and wild life. Thus, the designer associates the individual product as part of a larger entity of his entire work as a designer, and thereby, individual chairs gain an identity as *aesthetic design objects* that have a history longer than the separate product as such. They are not just office chairs but authentic design objects to be appreciated as part of a larger entity and a long history. The designer incorporates authenticity and originality not only into the product but also into the new brand.

Conclusion

With the help of this case study, the article was able to provide insight into how material objects come to carry and mediate "ideological meanings" (see Mazé & Redström, 2007) that may have very concrete impacts on organizational practices and culture, and even on workers' health. In other words, the reformulation of ergonomics does not only mean new ideas and concepts but also very concrete material effects on human bodies. Also, design is not only a matter of aesthetics or usability but it is also about politics.

The contribution of this article is twofold. The article has demonstrated how in the process of producing an office chair, the chair gains a status of an aesthetic object. In addition, the empirical analysis provides insight into how soft capitalism is grounded in the everyday practices and discourses of the organization. The article analyzes how the

reformulation of ergonomics in the company is intertwined with a vision in line with the ideas of soft capitalism. In the core of that vision is the aesthetic object which has to "speak" the vision in its materialized form. The objects and artifacts that convey the vision cannot be just any kinds of objects: They have to have the status of an aesthetic design object. Thus, establishing the vision as truth also means elevating and ennobling the identity of the object as an aesthetic object. The fact that when the chair is presented for the wider public for the first time, it is being tacked up high on a wall above our heads could, in a way, be seen as a reflection of its elevated character. The chair is above the everyday life, and thus, may even promise to raise us up and above the constraints of the mundane.

Despite being small-scale and thus to some extent restricted, the article casts light on the process of creating staging value with all its practices, things, and people who interact to create this something *more*. The vision as a discursive or rhetorical accomplishment is accompanied by several practices and arguments that work to give the chair an identity of an aesthetic object and, hence, make it into a materialized form of the vision. The contrast argument works to justify the vision on a discursive level; the research project helps turn the utopia into a reflection of reality; the meetings between the company's directors and the designer solidify the vision as a shared goal; the new press release raises the vision into a primary role, and the designer's presence at the meetings and involvement in producing a "motivational" film associate the chair more strongly with the vision and the designer, and so the chair gains a status of a creation of an award-winning designer. Thus, the status of an aesthetic object comes into being as a result of multiple practices and choices made by the directors of the company, the designer, the marketing people, the researchers, and the consumers.

As those aforementioned practices and discursive means strive to freeze the intentions of the manufactures, this process can also be seen as domestication of the ideas of soft capitalism. The vision manifests itself through this *universal* chair in contrast with the Scandinavian or Swedish chairs and practices emphasizing the local (as meaning here restricted, passive, and narrow) nature of the "old" and traditional. Not only is this new chair global or international in nature but pompously universal as well. In this context, Scandinavian does not mean authenticity, purity, or equality as in the marketing strategies of, for example, Ikea or some Scandinavian cosmetic brands and clothing companies. According to the vision, ergonomics belongs to the past, and in the past it was very much the local way to perceive and design things. Even though the roots of ergonomics are not originally in Scandinavia, the fact that ergonomics is so strongly associated with the Scandinavian context is linked in the data with the idea of Scandinavia as a promised land of technical engineering as well as the so-called social engineering. However, the old way is never described in a matter of fact way but with irony which could implicate that the vision has not established itself as the dominant truth in Scandinavia since otherwise there would be no reason to ridicule the old way. Rather, it could just be presented as a historical conception that no longer prevails.

As said before, although policy makers and academics may share the opinion that the importance of ergonomics is growing, in the data, ergonomics is constructed as almost the keyword of a bygone age and of old-fashioned ideas. Ergonomics is passé and not even fashionably retro. It is a modernist dream that does not take into account the consumers' supposed yearning for color, beauty, and mobility. The juxtaposition of ergonomics and the so-called humanism has its roots in the 1960s postmodernism that saw ergonomics as too rational an idea lacking pleasure, playfulness, and flamboyance. Needless to say that those were not the original aims of "ergonomics" as a developing idea and practice after the World Wars. It was not developed to bring in the fun to workplaces but to make them more efficient and safe. One might think that ergonomics and good usability are fixed and objective facts, but the article proves how they are culturally and historically shaped. In soft capitalism, the office furniture needs to be ergonomically bad enough to encourage the users to take more responsibility of their own health.

The new vision is presented as politically neutral and humane as it claims to offer more free-spirited meetings, casual and colorful meeting spaces in contrast with the social democratic way that produces gray mass and gray office workers. Yesterday's ergonomic chairs are redefined as passive, and the new lounge-like furniture is presented as the ideal. This "occasional chair" of the day is defined as more user friendly in a novel way: Ergonomics ceases to be the responsibility of the designer and the manufacturer, and becomes the responsibility of the new mobile worker, part of her self-discipline. If the Victorian age refused the basic ideas of ergonomics to demonstrate sophistication and willpower, our age refuses similar values to demonstrate the staging power of things, mobility, and individuality of ideas and people as well as to save money. Lounge-like furniture goes with an open plan office that will save square footage and reduce costs. The directors of the company also admit this to be the case. There is no reason to hide it as it is considered a natural fact.

The new vision aims at creating a world consisting of people, objects, and environments that compose a unity that would "welcome" this product as a natural element with its associations. The new vision is described as more democratic as it invites an open office where everything and everyone are in view. The chair itself is democratic in that sense that everyone, regardless of their status in the company, is seated in this very same universal chair. In other words, in this context democracy does not mean one's own personal space and ergonomic furniture but the same aesthetic design furniture and visibility for everyone. However, this universal vision does not include everything and everybody. The chair is suitable, for example, for working on a

laptop but not even once is it mentioned as suitable for working on a desktop computer. Working alone is not part of *this* universal idea. A room of one's own would hide the chair's staging value, its special design, and the rhythm it is supposed to create in an open office space.

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