

REGARDING DESIGN AS A CONSTITUTING PRACTICE MATTERS

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This paper explores how the two concepts of *representing* and *constituting* are used in relation to design practice. The terms representing and representation are often used to describe the relation a model or prototype has to the end result. In this exploratory paper we investigate the potential impact of a change in terms, from represent to constitute. One inspiration is the writing of John Stewart on the post-semiotic approach to communication. The examples used in the paper are from practice rooted in both traditional industrial design and co-design. I argue that it is important to see design work as a constituting practice rather than a representative one. Supporting this standpoint are both the fact that the future does not yet exist and therefore is difficult to represent, and the strong argument that knowledge is created in dialogue and constituted in action. Thus, when we stop interpreting design matter as representations, design can matter to the world.

INTRODUCTION

This paper explores the use of the two concepts *representing* and *constituting* in relation to design practice. Representing and representation are often used to describe the relation a model or prototype has to the end result. In this exploratory paper I investigate what the potential impact of a change in terms from represent to constitute. I will use three points of departure and two examples in order to discuss this.

As one point of departure I am inspired by the writings of John Stewart (1995, 1996) on the use of language as a constitutive activity. He argues that words are not used to *represent* (things) but are used to *constitute* the dialogue. By using language in dialogue the participants create knowing and understanding.

John Stewart quotes Heidegger regarding communication; he says it is “not a matter of transporting information and experiences from the interior of one subject to the interior of the other one.” Rather, it is “a matter of being-with-one-another becoming manifest in the world, specifically by way of the discovered world, which itself becomes manifest in speaking with one another” (Heidegger in Stewart 1995:110).

Stewart further explains how experiences cannot be represented in language, but are instead constituted through the dialogue because “the same phenomenon cannot be both constitutive and representational” (Stewart 1995:113). One must choose one model at a time, whether constitutive or representational, and Stewart advocates strongly for the constitutive:

“This languaging is the way humans ‘do’ understanding and, in the process collaboratively ‘build,’ ‘remake,’ or ‘modify’ worlds. To be a human is to be an understander, which is to engage in processes of coherence building or sense making, processes that occur communicatively and that enable humans to constitute, maintain, and develop the worlds we inhabit” (Stewart 1995:115).

Klaus Krippendorff (2006) proposes a similar approach to artefacts when he suggests that we “follow Wittgenstein’s suggestion to locate the meaning of artefacts ... in their use ... not as referring to other things” (2006:77). He says that designers should embrace a non-representational theory of meaning. The meanings that stakeholders ascribe to artefacts are constituted in conjunction with the use of the artefacts.

One other point of departure is co-design work where people work together collaboratively on creating propos-

als (e.g. Sanders & Stappers 2008). Most design work is collaborative to some extent. Even when an “expert designer” does the work, at least one other person is involved in the process. And when co-design activities are conducted, much collaboration is occurring constantly.

The third input is design discourse: we need a vocabulary to be able to talk about the artefacts we create. Designers use artefacts to explore issues and aspects of future artefacts in relation to the future situations of use. In HCI and interaction design these future artefacts are often called prototypes, and in industrial design they are often called models.

Artefacts created during design processes and used as prototypes or models are often described as representations. The artefact is seen as representing something to come. In HCI and interaction design textbooks we read that a prototype “is a limited representation of a design” (Preece et al. 2002:241) and “a concrete representation of part or all of an interactive system” (Beaudouin-Lafon & Mackay 2003:1007). The use of a representational theory is also common in contemporary research discourse: “Designers generally use ‘mock-ups’ as artifacts to represent early design concepts” (Mander & Arent 1993:203) and as “stylized versions of the artefact to be designed represented by simple cardboard or foam props” (Brandt 2006:63).

To explore the use of the two concepts *representing* and *constituting* in relation to design practice I will now present two examples.

EXAMPLE 1: TOOTHPICK HOLDER

As the first example we will look at a rather traditional industrial design assignment: design a toothpick holder for people with weak hands. A company that produced plastic toothpicks had learned that people with various diseases, for example rheumatism, take several medications, which is often bad for their teeth. These people also have difficulty taking care of their oral hygiene by themselves because their hands are weak and stiff. My aim, as an industrial designer, was to make it easier and more comfortable for the people to also use toothpicks when cleaning their teeth.

We started to work on an idea for a sort of pliers that would extend and enlarge the small, thin toothpicks. We had to create something that would both allow them to reach into the back of their mouths, and provide a better grip.

In addition to the cleaning activity, the holder also had to allow the user to insert and change the small toothpicks. We thought it might be problematic for users with weak hands to open the grip in order to change the toothpick. We had been testing several models ourselves, trying to imagine what it would be like to use the handle and change toothpicks with weak, and otherwise disabled hands.

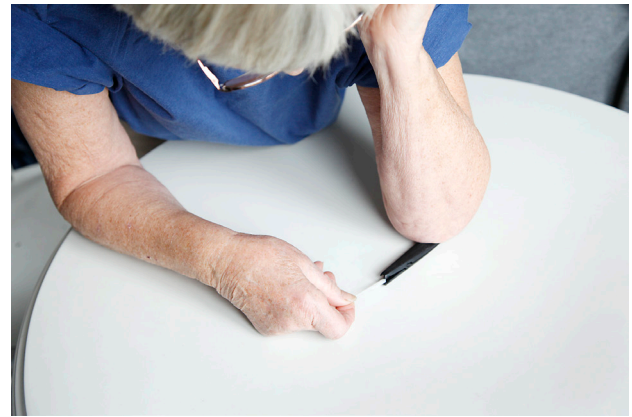


Figure 1.
Changing toothpick with an elbow on the toothpick holder's handle.

We realised that we did not have enough knowledge about the difficulties we might encounter during the design work; therefore we arranged for a group of people with varying disabilities in their hands to help us by testing our ideas and prototypes.

One day we took our rough prototypes and visited the people who had volunteered to test them. We visited them one by one in their homes or workplaces in order to learn from them how the different prototypes worked.

I still remember my total surprise when a woman laid a prototype of the handle on the table and quickly and with no problem at all pushed it open with her elbow and changed the toothpick with her free hand. In my thoughts about how the handle could be used, this unorthodox and creative approach had never occurred to me (Westerlund 2009).

I see this as a dialogue where I “ask questions” by letting people use different models; through their actions they “answer” these questions and explain how they experience the models. She proposed a way of use that I had not thought of. The woman does this, not by using words, but by acting, by presenting to me a way of practically handling the toothpick holder. Heron (1996) suggests that we should consider four kinds of knowing; experiential, presentational, propositional and practical (1996:33). During design work it is crucial to be aware of all four aspects, not only the propositional one, the spoken words.

The combination of the woman's and my activities with the prototype *constitute* this session.

EXAMPLE 2: CO-DESIGN WORKSHOP

During an exploratory workshop three women were working in a group with the assignment of critically examining their current working environment and practice. Their aim was to identify aspects that they find problematic. Then they were to regard these as opportunities for improvement and generate ideas for solutions. They were to act out these ideas in the form of scenarios with



Figures 2 & 3.

The sound hats in the video prototype *Happy company* enable people to talk in the workroom without disturbing their other colleagues.

the help of props they would create. These acted-out scenarios were then videotaped in order to create video prototypes.

The women created three video prototypes that were strongly related to their current work situation. They were clearly created out of their own experience of the frustrations they did not want to encounter again in the future.

One of the video prototypes is called *Glatt umgänge utan störning (Happy company, without disturbance)* and begins by showing how difficult it is to work in a call centre when colleagues are talking nearby. This is an account of the current situation; after that the group shows their suggestions for interacting with each other in the future without disturbing their colleagues. They need silence when talking on the phone but also want to be able to talk to one another while engaged in other duties, for the sake of relaxation and the many other reasons why workmates want to talk with each other.

The video prototype then shows how two women put on paper boxes used for copying paper and relabelled as *Ljudmössa (Sound hat)*. They walk around in the room and seem to be able to talk freely to each other without disturbing their colleagues (Figure 2 & 3).

The proposal shown in the video is most probably not an acceptable solution, i.e. it should not be seen as a *representation* of the final system. But it should be interpreted as a precise description of the affordance (Gibson 1979) that the system should have. The actual boxes that the participants put on their heads should be seen as an approach, a first attempt to ‘discuss’ the idea. They are one step in *constituting* the video prototype. The video prototype should be interpreted as a contribution to a discussion in which the artefacts together with the activities could be interpreted as an *index*, definitely not as *symbols*, as something representing a possible future system.

DISCUSSION

This way of describing the artefacts used in the design work as representing something else is problematic for many reasons. This would mean that these artefacts are communicative signs, symbols, standing for something. In design work you are concerned with creating “that-which-does-not-yet-exist” (Nelson & Stolterman 2002:10). Therefore it is very difficult to understand how a prototype can be seen as representing something that does not exist. This is of no real use as I see it.

In some cases the actual artefact or prototype is not of that much use unless one is aware of the context where it was created and its intended affordance and use. Sometimes the participants in a prototyping session use available items as prototypes or props in the video. In one workshop people used a tape dispenser to illustrate the use of a small recording device. In this case the tape dispenser itself is not of much use in the work of designing the recorder if removed from that particular activity.

Kjørup says that most things should not be regarded as symbolic signs (2004:50). Obviously there exist artefacts that many people regard as communicative signs, like traffic signs, signs on toilet doors, but this is not the kind of artefacts that we are discussing here.

Crilly et al. (2008) discuss at some length whether or not designed artefacts can be considered as communication; their main arguments against it are severe problems with containment and authorship. In this context when we are discussing the artefacts created during a design process the critique of containment is very relevant. They write that meaning should not be seen as “contained within messages that can be sent from one party to another. Instead, critics claim that meaning is actively constructed by people and that there is no necessary correspondence between intent and response.” (:435).

Previously at Nordes there has been several discussions on how to interpret artefacts in different contexts and how meaning is created. Van der Velden, Bratteteig and

Finken present how the realities of a station “are constantly produced in the practices of the people who use the station” (2009:1).

Many other people are opposed to regarding artefacts as communicative signs, as symbols. Klaus Krippendorff writes that artifacts seldom represent something; instead, they do something (2006:77). Moreover, because meaning does not reside in products (:141, 230) there is no necessary correspondence between intent and response (:54). Alfred Gell (1998) writes that “most artefacts should not be considered as signs in themselves and they cannot have stable meanings in them.” Here, Gell obviously means symbols since he supports the use of the indexical sign concept in order to discuss and interpret different artefacts. Discussing art and artefacts in museum contexts, he describes indexes as “material entities which motivate abductive inferences, cognitive interpretations, etc.” (:27).

If we put relevant questions to the artefact we make it into an index, which is a sign of something (Kjørup 2004:9). Footsteps in the snow can be interpreted as signs of someone who has walked there. Nothing is an indexical sign in itself; it only becomes one if someone chooses to regard something as such and decides to interpret it (Kjørup 2004:50). Index seems to be an appropriate tool for analysing prototypes. Indexes of things, words, and actions together with intentions, awareness, etc. can be seen as *constituting* the design process.

Guy Deutscher argues that the language we speak influences the way we think and surely it is the same way with the concepts we use, i.e. it is a fundamental difference between thinking of something as representing something else or as itself being part of constituting the process. This can have an impact on our way of working and also on the results of our work. Therefore we must be cautious and choose to use concepts that support our awareness, not least of the aspects that are difficult to verbalise.

CONCLUSION

I have argued that it is important to see design work as a *constituting* practice rather than a *representative* one. Both the fact that the future does not yet exist and therefore is difficult to represent and the strong argument that knowledge is created in dialogue and constituted in action, support this standpoint. Thus, when we stop interpreting matters of design as representations, design can matter to the world.

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