

## A creative designerly touch

Nurturing transformation through creativity in the meaning-mattering of design processes

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### Abstract

Creative methods can nurture meaning-making and reframing activities during a design process by supporting designers in externalizing and sharing their experiences and observations from field studies and transforming them into new insights. In this article we demonstrate how the method, Object theatre, can be applied as a meaning-making activity and we coin the term 'meaning-mattering' based on the theories of Heron & Reason (2006) and Barad (2007). The meaning-mattering merge the designerly way of thinking and working with creativity to bridges the gap between the experiential knowing obtained through field study observations and the propositional knowing of conceptual reflection as the onto-semantic configuration of Object theatre allows direct verbal and tactile references to be made during the dialogue among designers. This meaning-mattering practice can in a creative manner effectively support the novel development and refinement of both the problem formulation and the future solution.

**Keywords** Creativity, field observation, meaning mattering, designerly ways of thinking and working

### Introduction:

In this article we focus on the capacity of creative methods to nurture meaning-making and reframing during design processes. Meaning-making and reframing of the existing conceptual comprehension is important in a design process as it concerns “the transformation of existing conditions into preferred ones” (Simon 1996, p. 4) and focusing on the meaning of things supports the creation of value (Krippendorff, 2006), while developing and refining both the formulation of a problem and ideas for a solution iteratively (Dorst & Cross 2001). Similarly, but within creativity research, George (2007) argues that creativity is a fundamental driving force of positive change. This is supported by Amabile et al. (2005) who argue that it is the novelty within the ideas, which distinguishes creative ideas from basically well-completed ideas. We address the nurturing and facilitating capacity of creativity from a theoretical perspective with Heron & Reason’s extended epistemology of *four ways of knowing* (2006). This will lead to concentrating empirically on the transformation that occurs in the meaning-making process from ethnographic observations into new insight within a design process. We will illustrate and discuss this point in regard to specifically how one creative method, Object Theatre (Strand 2014b), can be applied as an involving, rich and effective method to enact a placement (Buchanan 1992) in the design process, which in effect makes the reframing possible. Our claim is that designers can, based on ethnographical data, embrace the complexity of wicked problems (Rittel 1972, Rittel & Horst 1984) and develop great insights during a meaning-making process, if the process consciously is supported and nurtured by creative methods drawing on other ways of knowing. We point out that the novelty of transformation in developing new conceptual comprehensions must be nurtured by the affordances of creative methods to embrace the designerly way of working and thinking and to interweave analysis into synthesis.

### The reflexive practice of design

Designers designerly way of working and thinking is a term or phrase, which describes how designers are reasoning in the process of design (Lawson, 1980; Cross, 2006). Both Lawson and Cross build on Schön’s theory of a reflexive practice (Johansson-Sköldberg et al. 2013). According to Schön designers engage as *reflective practitioners*

as they listen and respond to the situation (Schön 1983, p. 78-79). This is in line with Barad (2007), who argues that any construct of meaning is an onto-semantic construct and that any process or practice - whether it being a design practice, a learning process, a cooking practice for that matter is a *material-discursive practice*. The ontic (material) and the semantic (meaning) and the material and the discursive are not separate aspects of a meaning-making process: "The relationship between the material and the discursive is one of mutual entailment." (Barad, 2007: 152). Therefore meaning-making processes are always also *meaning-mattering* processes.

### **Ethnography in design**

The implementation of ethnography into design became very popular in the late 1990s (Wasson 2000), due to its methodological approach (Blomberg, J. et al. 2003). Barth elaborates on this in an interview on the essence of ethnography: "You want to go there with your mind as open as possible. You want to be surprised and you want to let yourself be surprised... wonder what it is like." (Barth in Sperschneider & Bagger, 2000 p. 68) The wondering here presented of *what is it like* is closely related to the practice of designers in their effort of understanding *how could it be*. We would like to argue that part of the found similarities in the disciplines of ethnography and design is rooted in the use of creative approaches. However, the traditional ethnographical account was descriptive with a high level of detail (for instance as thick description) by elaborating on the conducted observations. The ability to observe these naturally occurring situations and practices are widely credited with helping manufacturers identify new and important product directions (Wasson 2000), though the format was challenging for the creative process of design. The thick descriptions should be replaced with alternatives, which fit the conditions of design, while remaining the richness of the observations. This challenge was addressed in a workshop, U-CrAc, with theoretical inspiration from Heron & Reason (2006) and their extended epistemology of *four ways of knowing* (2006: 183-184).

### **Four ways of knowing**

Heron and Reason (2006) acknowledge the challenge, described above, of grounding worthwhile actions (and designs) in rich ex-

periential data like those obtained from ethnographic fieldwork. They point out that common understandings of knowledge practices are missing crucial links to ensure this bridging. As a manner of affording this they introduce an extended epistemology of *four ways of knowing* (2006: 183-184). 'Extended' because the epistemology here reaches beyond the primary theoretical propositional knowledge of academia (2006: 149) and encompasses experiential and aesthetic forms of knowing. The four ways of knowing are (Heron & Reason, 2006: 189):

*Experiential knowing* – which is “knowing through the immediacy of perceiving through empathy and resonance”.

*Presentational knowing* – which provides “the first form of expressing meaning and significance through drawing on expressive forms of imagery through movement, dance, sound, music, drawing, painting, sculpture, poetry, story, drama, and so on”.

*Propositional knowing* – which is “knowing through ideas and theories, expressed in informative statements”.

*Practical knowing* – which is “knowing expressed in skill, knack or competence”. This is thus knowing ‘how to’ do something. Practical know-how consummates the other three kinds of knowing and they are four phases in an emergent process.

To include the phase of presentational knowing in the design process is crucial because it enables an emphatic and immediate understanding of the observations. Throughout the extended span of the material-discursive practice of design the embracing of these four ways of knowing is an important part to nurture and facilitate creativity. Next, we turn to engage with one creative method, Object theatre, to illustrate how experiential and presentational knowledge can be included in the cycle of the design process.

### **Object theatre - a creative meaning-mattering mode of articulation**

Object theatre<sup>1</sup> (Strand 2014b) is an articulation form belonging to the methodology of Material Storytelling (Strand 2012). The prac-

tice of Object theatre is inspired by the therapeutic method of Sand-play (Kalff, 2003) by applying a material storyboard; a 3D sandbox and a large collection of artifacts to articulate or *configure* meaningful stories - or meaning-mattering-practices – of professional practices of any sort (Strand, 2014a: 325).

The term (re)configuration comes from Haraway's (2008) notion of the presence of figures; "Figures collect the people through their invitation to inhabit the corporal stories told in their lineaments". (Haraway, 2008: 4). Figures are onto-semantic knots, which means that they are material-discursive constructs of articulation.

The meaning-matter reconfigurations of an Object theatre process bridge the gap of experiential knowing and propositional knowing in the cycle of the four ways of knowing from above. In that bridging the onto-semantic configurations affords tacit knowing – comprehended as the 'not yet embodied knowing' (Thorsted 2013) - to be embodied aka materialized and placed in a manner that secures the richness of the ethnographic observations (the experiential knowing). In doing so, further, Object theatre facilitates the reframing of the initial comprehension of the given problem.

Object theatre was employed in a collaborative design process at Aalborg University and next we turn to take a closer look at this process to empirically underpin why such endeavours are crucial part of design processes and designerly ways of thinking and working.

### **U-CrAc – configuration of field observations**

Empirical observations were conducted in 2013 during a three weeks workshop named U-CrAc - the abbreviation of User-driven Creative Academy (Poulsen & Rosenstand 2009). Seven educations (Experience Design, Interactive Digital Media, Industrial Design, Entrepreneurial Engineering, Cultural Communication, Occupational Therapy and Nursing) with a total of 142 students were divided into 22 interdisciplinary groups, which each were given an individual assignment. These assignments had a combination of IT, experience and health dimensions and were provided by both local companies and public organizations, which in the following will be entitled clients.

An Object theatre workshop was initiated after 2 days of field-work for the groups to embody the field observations.





Figure 1: A photo of the practice of selecting and placing artifacts during the Object theatre process at U-CrAc 2012.

In the following we focus on the selected case study by first presenting the client's design brief before focusing on the meaning-mattering situation within the particular group.

### **The brief of the client**

The client is a private medium-sized company, which offers way-finding systems for public institutions (hospitals & educations), large companies and housing associations. The client asks the students to focus on a specific solution within their portfolio – a way-finding / directional service system, which consists of both material components and a digital service. The use-case of the way-finding system is: a visitor arrives at a large building, which he / she is unfamiliar with. At the entrance the visitor meets with a cartoon figure representing the service. Here the visitor can scan a QR code with any QR scanner App at the smartphone. This provides the visitor with way-finding instructions for the desired location. The way-finding system would tell the visitor where to go according to the position of the scanned QR code. The visitor must strictly follow the given directions to the desired destination, but if the person makes a wrong turn, then the visitor has to go back to a previous point or even back to the cartoon figure to restart the journey.

The company registers that the majority of the people passing the cartoon figure do not notice it even though it is the size of humans. This implies that only a few of the potential users see the available service and fewer actually take it into use. The company presents the

assignment of “How could more awareness of the located cartoon figure, and hereby their service, be created?” to the students. The students studied the problem through fieldwork at two locations where the technology is implemented and used. After the field study the students enacts both the brief and their observations to articulate their meaning-mattering of the complexity of the problem derived from this fieldwork.



Figure 2: A photo of the completed Object theatre configuration

In the following we will unfold how Object theatre supported a creative reframing of the initial brief by focusing on the interaction between the group and a teacher.

### **Reframing a problem**

After having dealt with the center of the sandbox, where the situation in which the existing solution is configured, the teacher (T) suggests a reorientation to the peripheral surrounding of the sandbox. This is where the chosen ‘reframing’ situation originates. Within a few minutes of the Object theatre activity, the initial problem, as

the client defined it, is challenged as the students (S1, S2) create a more nuanced representation and understanding of the problem.

1. S1: Or this telescope [*representing the client's perspective*] looks past him as he [*the frog, which represents the user*] is looking for direction.
2. T.: uhhmm
3. S2: It could be the user [*holding hand over the front of the telescope and the frog*] who doesn't see what ... from back here [*pointing towards the back of the telescope and waves hand forward in the viewing direction of the telescope*].
4. T: Ahhh, [*placing finger at rear end of telescope*] so this person here should actually be moved back here. [*picking up the figure and moving him behind the telescope*] He should have his eyes split, so that he could look into the both [*points at the left and right part of the telescope*].
5. S2: [*picks up the figure and places it at the original location*] If you have...the producing company. [*placing hand over the rear end of the telescope*] then they are looking out here [*spreading fingers and moving slowly towards the front*] with a certain viewpoint,



Figure 3. Student 2 picks up the frog figure and places it at the original location

6. T.: one viewpoint, jaarhh
7. S2: ...but the person here [*pointing at the frog figure*] has a different viewpoint.



8. S1: [*adjusts the figure to sit up straight in front of the telescope and waves the hand with spread out fingers in the opposite direction as before; across the telescope in the viewing direction of the frog figure*]
9. T: oohhh of course, seeing something completely different...it is interesting, very interesting point whether it is user-oriented or it is seen from the viewpoint of the producer, right?

Here the students together with the teacher and the artifacts reframe this initial understanding through realizing that there are opposite viewpoints at stake (line 7-9). They realize that the client has a perspective on the application of his product, which hinders him in seeing the true need of the users, as they are not in need of a way-finding application before they are actually lost. To take advantage of the location-based technology in the existing system the user has to be at a certain and predefined locations to scan the QR code. The students (re)orient themselves towards getting the design right - before getting the right design (Buxton 2007) - by questioning the original solution and questioning the role of the product in relation to the users' needs. The new and alternative suggestion from the students, developed with the onto-semantic configuration, calls for a more fundamental change in the design.

We claim that the creative approach, Object theatre, in the design process supported the reframing of the problem through the specificities of the mode of meaning-matter articulation and we would like to draw out three central qualities of Object theatre.

### **1. Externalizing through configuration**

Designers have traditionally externalized their thoughts and ideas through mock-ups, sketches and models. This is an innate part of designing, because "once externalized, the ideas become 'real'. They become something that can be discussed, defined, embraced, or rejected by any number of people, and the ideas become part of a larger process of synthesis." (Kolko 2011: 16). This allows them to engage in a reflexive interaction with the situation that they externalize by letting the material "talk back" (Schön 1992) to them. Through the onto-semantic configuration of the sandbox the participants were able to externalize their observations, and both explicit and tacit ob-

servations (through the multiplex of ways of knowing afforded by the method) are canalized into the shared configuration of the observations in the process. Here the novelty that reframes the brief grows out of the affordances of the Object theatre practice of getting the participants playfully engaged.

Having the onto-semantic configuration allows direct verbal and tactile references to be made during the dialogue where rich interaction occurs in the handling of the two artifacts. The telescope illustrates with its metaphor an appeal to look outwards and engage in interaction with the users; however, the location of the green frog shows that this fails as the company 'overlooks' the actual need of the user. This is illustrated by placing the green frog right in front of the telescope, which is too close to be observed by the telescope as it is prearranged in a slightly different direction (upwards). This was articulated in the configuration of the sandbox, which enables presentational knowing to emerge into propositional knowing - the reflective reframing of the brief.

## **2. Maneuvering the configuration**

The creative and enacted situation with hand-gestures and a material configuration turns a complex problem into something concrete, as described above, which also invites to the participants to collaboratively interact with the matter in a tactile way. The participants can simply touch the material configuration. It becomes a creative and dynamic configuration and through non-verbal negotiation also a re-configuration. The a moveable - and therefore maneuverable - artifacts (as for instance the green frog) not only enables a rich interaction, but it specifically allows different perspectives to be illustrated and negotiated, which in great detail informs the participants of the different perspectives and enable them to embody the not yet embodied experiential knowing through the engagement of the presentational knowing of moving the artifact.

## **3. Sharing through configuration**

The collaborative meaning-mattering activity facilitated potential conflicts within the interdisciplinary group in a way that maintained the focus on the problem at hand and not on the participants with divergent views. Because of the different disciplines represented in the groups, participants got into arguments and articulated the

problem in language that came from their own discipline rather than in a shared language. However, through the process they are creating a shared understanding of both the problem at hand and hereby also the direction of the project. In this way the creative process of reframing unites the group and enables them to develop a shared goal towards which they can utilize their different competences. Object theatre enabled a tactile and nonverbal articulation of the observations and the configuration of the artifacts hold great richness as statements in the dialogue. We argue that the creative method provided the interdisciplinary team with an arena within which a shared and intuitive language emerged to overcome the language barrier as well as the differences of perceptions and perspectives. It is not a matter of democratizing the process, because conflicts can be constructive (Buur & Larsen 2010), but it is a matter of utilizing the different perspectives in a beneficial way.

## Conclusion

The focus of this article was on how the crucial reframing during processes of design can be nurtured by creative meaning-mattering activities involving other ways of knowing. Insights and shared understanding can emerge from ethnographic field studies through creative methods like Object theatre and bridge the gap from experiential knowing to propositional knowing as the onto-semantic configuration of the presentational knowing allows direct verbal and tactile references to be made during the dialogue. This creative meaning-mattering practice can effectively support the novel development and refinement of the problem formulation and the future solution.

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### Note

- 1 The name 'Object theatre' was coined in 2011 as part of 'Material Story Lab', which is the common term coining the use of the three material story modes of the Apparatus of Material Storytelling; stories of spaces, stories of bodies and stories of artifacts. The latter was used as the workshop-platform for one of Academy of Managements 2011 conference PDW's, which was held by our



Danish colleagues Kenneth Mølberg Jørgensen and Nikolaj Klee as well as our American colleague Stephen Fitzgerald, who came up with the name 'Object theatre'.