

Towards a Hermeneutic Perspective on Design Practice

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Abstract

This paper extends Coyne and Snodgrass' conceptual work suggesting that design can be understood as a hermeneutical practice. Inspired by three interrelated empirical design cases, I show how "philosophical hermeneutics" correspond with Schön's theory of the "reflective practitioner" and how hermeneutics can help deepen our understanding of "the conversation with the situation at hand". An analysis of Schön's theory in the light of the empirical cases reveals four gaps that hermeneutics explicitly addresses – not least how designers engage in interpreting, deliberating and manifesting new meaning. Further, the cases also show a gap in Coyne and Snodgrass' work inspired by Hans Georg Gadamer's "historical hermeneutics" that may be better articulated with inspiration from Paul Ricoeur's "critical hermeneutics", which introduces a critical dialectic "at the heart of hermeneutics". I also direct attention to how problem solving in the cases was inscribed in the process of interpretation rather than define it, something which I suggest also challenge main-stream problem solving oriented innovation theory.

Introduction

Despite the plethora of methods, processes and models that have attempted to "explain" design ever since the Design Methods movement in the 60's, there is still a general lack of studies that investigate *experienced* design practice. This lack has been noted by Buchanan:

"If design theory has often tended toward neo-positivism, design practice has tended toward pragmatism and pluralism... Design history, theory, and criticism could benefit from closer attention to the pluralism of views that guide actual design practice." (Buchanan, 1992:6n2).

More recently, and inspired by the “practice turn” in theory, Kimball (2009) and Stolterman (2008) express similar concerns. It could be argued that practice knowledge abounds in the design research discourse. But this knowledge is mostly entangled in other research objectives, is “hidden from view” as to a large extent tacit knowledge or is developed on the terms of epistemologies not reflecting design practice, not least positivist inspired ones (e.g. Krippendorff, 2006). This lack in theory becomes increasingly problematic when design practice is drawn into other contexts, such as management and innovation¹.

The design literature has typically presented representations that are “rule-like” and focus on decision making and cognition rather than embodied knowledge (Simon, 1996), or on linear sequential processes rather than entangled practices (e.g. Alexander, 1964, Jones, 1970). Even when the popular design thinking literature represents designing, it does so either in relation to other practices in dichotomous ways, establishing design as something fundamentally “different” (e.g. Martin, 2004, Brown, 2009) or by relating its vocabulary to science, as in the case of the rather frequent use the concept of “abduction”² (e.g. Kolko, 2010, Martin, 2004). Even though such representations hold relevant insights, it is always in strong relation to something *else* and with a rather weak correspondence to actual design practice – in one way or another, the *experience of designing* is abstracted away, is lost in translation, and further that “*The debilitating side of such models is the mystery about design that they promote.*” (Coyne & Snodgrass, 1995:57).

However, there is also another possibility. Inspired by Donald Schön’s thoughts on metaphor (1993), Snodgrass and Coyne (Coyne & Snodgrass, 1995) argue that we need to become aware of how the metaphors we use often determine how we think about design. Snodgrass and Coyne further suggest that we should be inspired by Wittgenstein’s concept of “family resemblance” rather than let the

¹ A more specific reason for this study is tied to an ambition to establish a firm foundation for understanding the contribution of design practice to the innovation capabilities of “non-designerly” companies. As such it is also a theoretical as well as empirical contribution to the budding stream of “design driven innovation” (e.g. Verganti, 2008).

² Abduction is a concept developed by American Pragmatist Philosopher Charles Sanders Peirce to describe a logic where something is interpreted and given new meaning in a *new* context, as an alternative or complement to inductive and deductive logic which stay in the *same* context c.f. (Danermark *et al*, 2003), i.e. it is valid concept for design, but it also delimits design to “reasoning”, or to design *thinking*.

scientifically derived notion of correspondence between a model and a presumed fixed reality guide our thought. To them metaphors as an alternative to models have a better fit and are better able to capture complex, situated and to a large extent embodied human experience, for example of designing. Their suggestion is that the “Hermeneutic circle” is a better metaphor for designing than the dominant metaphor of problem solving³ because it doesn’t “...*destroy the complexity, subtlety, and uniqueness of the design situation; or privilege or preclude aspects of the process, but rather respects their interdependence and interaction.*” (Snodgrass & Coyne, 1992:72).

Another metaphor that seems to have a striking family resemblance with experienced design practice is Donald Schön’s concept of the “reflective practitioner”. As Coyne and Snodgrass note:

“Even a cursory examination of the protocol studies of Donald Schön indicates that the design process he describes works according to the dynamics of the hermeneutic circle, proceeding by way of a dialogic exchange with the design situation” (Snodgrass & Coyne, 1997:22).

The notion of the reflective practitioner indeed goes a long way to describe design as contingent, situation oriented and reflective. As such it has also been a source of inspiration to many design theorists (e.g. Lawson, 2006, Cross, 2006). However despite its merits it is also problematic in several respects that will be further discussed in the theoretical section of this paper. Most of all it fails to relate explicitly to issues of meaning – to how designers interpret, deliberate, and manifest meaning. This is where “philosophical hermeneutics”⁴ might offer an alternative or complementary understanding which both goes deeper in relating to experienced design practice, but also in providing an understanding which also resonates well with those key tenets of Schön’s theory which has found favour with the design practice community, not least the understanding of design as “... *a reflective conversation with the situation.*” (Schön, 1983:43). In other words, philosophical hermeneutics, although so far a small stream in design research, may help us dig even deeper into the dialectic nature of this conversation and

³ After all, the word “problem” has only been used in daily speech since around the 1920’s (Online Etymology Dictionary, <http://www.etymonline.com/index.php?term=problem>). In other words, the everyday use, and thus the construction or conceptualization of reality according to that word, is not more than about 70 years old. Similarly Lakoff and Johnson argues that the metaphor of problem solving is one of the most influential metaphors of our time (Lakoff *et al*, 1980).

⁴ I use the term “philosophical hermeneutics” to indicate that I mean the more contemporary hermeneutics of for example Hans Georg Gadamer and Paul Ricoeur rather than the older biblically oriented hermeneutics.

also better understand Schön's seminal contribution. In this paper I build on the works of Snodgrass and Coyne, who to my knowledge have done the most to advance an understanding of design through the lens of philosophical hermeneutics, although there are also other important contributions, not least by Winograd and Flores (1987).

The paper has four main sections. First, in the theoretical section I begin by presenting an analysis of Schön's concept of the Reflective Practitioner that reveals four gaps in the theory (an analysis that has been inspired by three empirical cases that are introduced in the second section as a complement to Coyne and Snodgrass' conceptual discussion.) I then introduce Hans Georg Gadamer's "historical hermeneutics" that is the foundation for Coyne and Snodgrass, and which seems to address all of these gaps. However the empirical cases also highlights a gap in Gadamer's historical hermeneutics – the lack of a critical faculty "at the heart of hermeneutics" (Kristensson Uggla, 2002). I therefore suggest that an even better fit with the experiences drawn from the empirical cases may be found by introducing Paul Ricoeur's "critical hermeneutics". To illustrate this fit I introduce the cases in the second section and then in the third section present an interpretation that explicitly draws from Ricoeur's critical hermeneutics. Finally, in the fourth section I reflect on how this new understanding of design practice may also provoke a new understanding of innovation because the cases also reveal how problem solving seem to have a particular relationship to interpretation, something which has been little discussed in innovation theory.

Theoretical section

Departing from Schön – an analysis of the "reflective practitioner"

When Donald Schön introduced the now well-known concept of the "reflective practitioner" in 1983 it was a clear departure from the dominant problem-solving paradigm in research on professional knowledge (Schön, 1983). Not least did Schön critique Simon's proposal of a "Science of Design" that, despite being proposed as a solution to the poor performance of professionals in dealing with social problems, built on decision theory and problem solving. To Schön *"The situations of practice are not problems to be solved but problematic situations to engage in characterized by uncertainty, disorder and indeterminacy."* (ibid 15). Schön argued that practitioners deal with such situations through "reflection-in-action". A well-known illustration of this is Schön's case where architect and tutor "Quist" shows first year architect student "Petra" "by doing" how to fit an elementary school building to a specific site characterized by a "screwy slope". In *"... a reflective conversation with the situation."* (ibid 43) Quist applies possible "disciplines" (for example a specific geometry) to attempt to order the

ambiguous situation. Throughout the reflective process he listens to how the situation “talks back” to him – what the possible consequences of this or that move might be. Thus he continuously “reframes” the situation in different ways, showing Petra by reflecting and sketching in tandem how to get out of the problematic situation she was in.

It would be easy to once again refer to Schön and to all the rich aspects of designing that the case illustrates. However, as enlightening as the case is, there are also a couple of limitations to this representation. First, the theory of reflection-in-action is still too instrumental in the sense that it presupposes a for the most part *negative* something and in this way borders on problem solving, even though Schön instead used the term problem *setting* to shift focus to reflection. Second, the subject-object duality is intact. The reflective practitioner reflects *on* something by immersing in reflection, i.e. the subject is still positioned in a traditional distanced role in relation to the object. Nor does Schön discuss the relationship between the situation and the “world”. The situation is equally intact and restricted, certainly complex but nevertheless “inert”. Third, the notion of reflection seems to be restricted to an equally inert self. Schön discusses how Quist draws on his “repertoire”, but nothing more as far as I can see. Fourth, meaning is not explicitly discussed. Quist reasons about practicalities in relation to a “screwy slope”. In Quist’s mind meaning will probably be crucial (including how the students and staff will experience the building). But Schön, in his protocol studies of this first year tutorial case in architecture, does not capture meaning other than implicitly and, as Molander notes “... *there is a lingering trace of objectivism in the sense that he [Schön] speaks as though there is still a fundamental world of facts, it’s just that the practitioner can’t reach it.*”⁵ (Molander, 1996:158).

Enter Hermeneutics – Hans Georg Gadamer’s “historical hermeneutics”

Hermeneutics can be considered a European cousin to the American Pragmatist tradition in Philosophy that Schön was rooted in. Both offer a more “relativist” or “constructivist” understanding of knowledge, culture, practices, social interactions, and so on - a clear contrast to the dominant “objectivist” tradition in science. However hermeneutics has more explicitly dealt with issues of meaning. Indeed, the linguistic term hermeneutic goes back to ancient Greek mythology and to *Hermes*, the messenger between the Gods and the mortal humans. In order to be able to convey the will of the Gods to the humans Hermes had to both be able to understand the original message and then able to translate it so that intended meaning would be understood. (Kristensson Ugglå, 1994:175). Hermeneutic interpretation builds on a

⁵ My translation from Swedish.

long history of “Biblical exegesis” which was developed during the first centuries AD to instruct how to correctly interpret the Bible (Todorov, 1989).

More contemporary hermeneutics draws from a rather different knowledge tradition and not least on Hans Georg Gadamer’s “historical hermeneutics” which was a clear departure from earlier attempts to reach back to bygone history and catch “eternal” Truth through Method. Indeed, Gadamer’s *magnum opus* “Truth and Method” (Gadamer, 1996) expresses an explicit reaction to such understandings. Gadamer instead argued that such notions are impossible as both the subject and the object are already *situated* in history – *alas*, there is no objective position. This view was inspired by German Philosopher Martin Heidegger’s ontological philosophy and the concepts of “Dasein” – of *being in the world* and of “Thrownness” (Geworfenheit) – that to be in the world is to have to Interpret. But giving this situatedness validity concerning interpretation also demands a fundamentally different take on Truth. What is truth if it is not in the original meaning of the text? In Heidegger’s Philosophy the concept of Understanding (as a verb) is elevated to ontology, i.e. that to understand is “...*the original characteristic of the being of human life itself*” (ibid 250). Gadamer suggests that the only way to reach true meaning is thus *via* understanding⁶. Further, and inspired by Aristotle’s concept of Phronesis, that truth is found in practice, and is thus reflected in “application” (in a new version of an older text for example). This view is shared with the American Pragmatist tradition. To reach such situated truth one has to be *immersed* in interpretation. Just as it means to lose touch with the play experience if you leave the game so the *Ehrfahrung* (Experience) that is fundamental to understanding is lost if one is distanced from that which is to be interpreted, for example through Method - through objectivity *Zugehörigkeit* (belonging), and therefore truth, is lost (Gadamer, 1996:104).

Further, to Gadamer the practice of interpretation is truly *dialectic*, i.e. it is a process characterized by active questioning and answering, the “... *art of entering in dialogue with the text.*” (ibid 368). It is a dialogue that moves in a circular pattern centrifugally towards understanding – the “hermeneutic circle”⁷. This is the cycle which very much resembles Schön’s “... *oscillation between the unit and the total.*” (Schön, 1985:49). Gadamer further ties these notions of situated truth, meaning and understanding with the idea that historical texts “bear witness” of accumulated such “being in the

⁶ “Understanding”, as a way to reach knowledge an interpretative tradition, is often in Gadamer’s texts contrasted with “Explaining” as the way to reach knowledge in the Objectivist tradition.

⁷ A concept that he borrowed from Heidegger who in turn borrowed it from Nietzsche and Hegel.

world” of others before us. This fundamental principle Gadamer calls “Wirkungsgeschichte”, or in English “History of Effect” or “Effective History”. A consequence of these principles is that we are always “downstream” of effective history and are thus given access to the means necessary for true interpretation. In a move that strengthens his opposition to scientific objectivity Gadamer then considers “prejudice”, or “preunderstanding”, if correctly applied in an open manner and tied to a considerable Bildung, as fundamental to understanding. He thus “gives nuance” to the understanding of prejudice in relation to the objective tradition’s solely negative understanding. The circular movement starts in one’s own prejudice – which is part of one’s own “horizon of understanding”, which then evolves so that ideally when expanding through interpretation one’s own horizon may fuse with the horizon of that which is to be understood – Gadamer’s central notion of the “fusing of horizons”. Further, Gadamer accords history and historical texts “Authority” as representatives of “Tradition”. This strong emphasis of History and Tradition however pose a problem when we attempt to better understand a more “futurity oriented” design practice that also is part of the on-going creation of *new* meaning.

From Hermeneutic Circle to Hermeneutic Spiral – Paul Ricoeur’s “critical hermeneutics”

One way out of the deadlock of Tradition and Authority is to be found in French philosopher Paul Ricoeur’s Critical Hermeneutics. On the one hand his philosophy builds further on Gadamer’s historical hermeneutics, but it also departs from it in several respects, not least in that it introduces a critical distancing dimension to interpretation that Gadamer could not allow in his opposition to method, but also in how it enhances poetic redescription, for example through metaphorical language.

To understand how Ricoeur can introduce a “critical faculty at the heart of interpretation” (Kristensson Uggla, 2002) it is important to see that Ricoeur has a different relationship to ontology than Heidegger and Gadamer. While Ricoeur acknowledges interpretation and the notion of Dasein, he rejects Heidegger’s universalist ambition to let ontology determine everything. Instead he follows German Idealist philosopher Karl Jaspers in thinking about merely “ontological indications” (Kristensson Uggla, 1994:238) - a response to the risk that such ambitions towards ontological understanding may shut down further communication. Typical of Jaspers’ and Ricoeur’s philosophies is that they instead accord primacy to ongoing and open communication. With this Jaspers-inspired position it is much easier for Ricoeur to re-introduce epistemology into hermeneutics and establish a “long detour” (ibid) to understanding that *both* involve an ontologically derived interpretation as well as an epistemologically

derived reflection (that may be distanced and critical). To him these are intertwined in a “Hermeneutic Spiral” which may open up to the “excess of meaning” of the world, rather than risk locking down meaning. This more postmodern understanding of discourse can be seen as a kind of positive ongoing battle of interpretations where care has to be taken to actually keep tensions and frictions in place as fundamental to this process of understanding.

To achieve this integration of a critical faculty into the dialectic of hermeneutics Ricoeur finds inspiration in Critical Theorist and Sociologist Jürgen Habermas’ critique of Gadamer’s historical hermeneutics (Ricoeur, 1992)⁸. Habermas challenged Gadamer’s historical hermeneutics to reveal that which is made invisible in ideology. To him oppression occurs in the “sphere” of communicative action where language is distorted on the terms of the dominant power – for example through Tradition and history writing. As hermeneutics stay in meaning through language it will not detect this distortion if it cannot develop an *explanatory* critical perspective Habermas argued. This understanding supports Ricoeur’s introduction of *critique* as fundamental to the ambition to keep communication open and enhance tension to be able to generate new meaning. Ricoeur thus proposes a fusion between the critical attitude of Habermas bent on *explaining* and the interpretative approach of Gadamer’s aim for *understanding*. In order to achieve this move Ricoeur has to rearrange the understanding of hermeneutics in four interrelated ways.

First of all, “distancing” can then be seen as a prerequisite for interpretation rather than as its opposite. Indeed already the fixation of the text is a kind of distancing from “original” meaning – already there “... *the world of the text fundamentally expands the world of the author*” (ibid 150) making an infinite number of readings or interpretations possible in new socio-cultural contexts. In other words distancing was in a sense already there in Gadamer’s hermeneutics. Second, to overcome the devastating dichotomy between explaining and understanding hermeneutics has to move its discourse from the work to the practice, i.e. from the text to the act of writing (i.e. from the designed object to designing). Third, when instead departing from practice, it is vital to emphasize “poetic redescription” inside the process of hermeneutics, for example the use of metaphorical deliberation to strengthen the potential to open the meaning of the text in relation to what is external to it – i.e. to let the text open a “world” (or many), “in front” of it (ibid 153). Four, the subject needs to be rearranged. As Ricoeur puts it: “*To understand is not to be mirrored in the text, but to be subjected or exposed to the text*” (ibid 155). If the text opens up new worlds of understanding in front of it, this also means that the self is opened up to

⁸ I have translated quotes from the Swedish text to English.

receive a richer self (“un soi plus vaste”) by acquiring the possible worlds that interpretation develops (ibid). To acquire thus becomes the dialectic counterpart to distancing - to acquire also means to surrender the notion of an inert self.

If Gadamer saw Thrownness as an essential part of interpretation, i.e. as a necessary part of the *practice of interpretation*, we may also relate the concept of Thrownness to the *result* of the practice as Ricoeur propose. The design, the poem, and suchlike is also something that is “thrown into the world” as a proposal to be interpreted and thus holds the capacity to open up new worlds. If we then combine the poetic reference, and the ability to rewrite reality, with a critical position we gain a subversive “could-be” perspective (ibid 154), something that resonates with design practice as understood by design theorist Håkan Edeholt who suggests that the innovation potential in design is to propose how things “might be” (Edeholt, 2004). This is why I believe that Ricoeur’s critical hermeneutics and his metaphor of the hermeneutic spiral is an even richer metaphor and concept than Gadamer’s historical hermeneutics and circle – it integrates both a centering movement of reflection and a decentering movement of communication with others via manifested and poetically rich interpretations, for example designed objects.

Presentation of the Empirical Cases

Background to the Empirical Cases

This empirical study is introduced to help understand design practice as a process of interpretation, deliberation and manifestation of new meaning by drawing on philosophical hermeneutics. The study builds on an experimental design project that explored the possible commercial innovation potential of a gender perspective⁹ on products (for details see Jahnke 2006 or Jahnke & Hanson 2010).

In the experimental project seven master students in design explored and critically reflected on gender meanings through design. The student brief was to design interactive artefacts for an exhibition with the purpose of broadening the general public’s understanding of how designed objects are “gendered”. The

⁹ The gender perspective of the project is based on an understanding of gender as socially and culturally constructed. This view is inspired by Butler (1990, 1993) who sees gender as a discursive practice or ‘performance’, and argues that gender and the heterosexual position cannot be predefined. Designed objects can then be seen as materialized representations of the performativity of gender, which makes design a tool for gendering as well as for “gender-bending”.

students used quite different strategies, including “bending” norms, make taken for granted norms visible by exaggeration, and opening up for reflection through “Verfremdung”¹⁰.

The result was a number of artefacts that incorporated radical meanings in relation to established socio-cultural norms and values. These meanings were conveyed through colour, shape and style, and also through material and functional properties. The project consisted of three phases: 1) Exploration and reflection – students explored the market place and gender implications, both in theory and practice, through seminars and workshops; 2) Reflection and design – the students engaged in more personal reflections through practice, based on issues of meaning that intrigued them; and 3) Exhibition design - which the students designed together. This paper draws primarily from experiences of phase two. I will use three cases from the study – the design of three chairs or sitting furniture that together make up an interesting span that is “entangled socially” as well as thematically. All the chairs represent an interest in the meanings of postures, space and behaviour, from the symbolic to the experienced and in relation to gender issues¹¹. They also represent a range of different strategies used to convey meaning to the audience, including provocation, irony, and hidden meanings.

The research method was inspired by ethnography (Hammersley, 2007). Interviews of the participating students were carried out just after the project ended and covered the students’ experiences of the project, group reflections and discussions, their individual design process, the result, exhibition, and in particular, their understanding of gender. In addition, observations were made during student seminars and workshops, and later at the exhibition site. Visual analysis of the objects in the exhibition and photos of the objects complemented the students’ own interpretations and explanations.

The Cases

Duel by Ulrika Hegårdh – An experiment in the negotiating of sitting positions and claiming of space

Hegårdh immediately decided that she would design some kind of chair. Her first idea came as a result of the discussions in the group about gender issues and bodily behaviour. She had noted that office chairs with their typical flat seats do not support traditional female cross-legged sitting. Her first idea

¹⁰ Bertolt Brecht’s concept of making something well-known unfamiliar.

¹¹ Postures and our sitting behavior are restricted or bounded by our gender which can be explained both in terms of space and of body postures. For example, to sit is to culturally occupy a position - a man can claim his space since he is supposed to sit with his legs spread, stretching out while a woman should make space and is expected to cross her legs and keep her knees together (Jahnke 2006).

was to add a cushion to support the thigh. However, this did not feel right; it enhanced stereotypes she felt and did not ring true to her inclusive design philosophy. Instead she discussed sitting from an equality point of view, and as a social rather than individual phenomenon. Now she felt more “at home” and she also experienced more support from the rest of the group, which confirmed that this would be more “her”.

Reflecting on sitting from this perspective, she decided to displace or even erase the issue of gender, and instead focus on people as individuals, beyond gender norms. Gradually her challenge was formulated as an exploration of how we sit together - how much space we claim or offer. She also began to conceive of the possibility of studying this process as an “experiment” which could be made possible through a piece of furniture.

Her challenge now became to explore acts of interaction and negotiation in sitting. Initially she conceived of this as a *fight* over space, of power relations and *struggle*. The guiding metaphor for understanding the phenomena of sitting together became “*sitting is a struggle*”. On a meta-level she connected to a discussion in the group about gender issues as a struggle for rights, space and power in society. She now drew from experiences of situations with a similar dynamic, and not least from her fascination with sitting in public spaces, such as railway stations and parks. She had noticed that in such environments there is a constant demarcation of space between people, and that it is a fluid, sensitive and bodily experienced process.

Hegårdh started to conceive a piece of furniture for similar public situations that would actively provoke sitting as a struggle. While looking for practical ways to solve this, she remembered a kind of folding backrest that she had seen and experienced on a ferry in Thailand. The backrest could be flipped over to one side to give space to individuals, or to the other side to allow for a group to sit together. Someone had to actively decide the configuration of the bench. Her idea was initially to use this function and enhance the need to interact with the backrest before sitting down – to be forced to decide how much space to allow or claim. However, as soon as she had devised this idea it did not fit with her ambition to not provoke unnecessarily. Instead, and as a reaction to this, she chose to convey the need for *cooperation*.

On a meta-level, here was a relation to and understanding of the process of increasing gender equality as a process of cooperation rather than as a struggle or fight, something which was more true to her beliefs. In the sofa, this could be translated to a ‘balancing act’ of achieving equality of sitting – equality

in the sense of a negotiated equality rather than in the literal sense of absolutely equal space. Now the guiding metaphor was converted to become something like “sitting together as an act of *balancing* or *cooperation*”.

The new direction also meant that Hegårdh’s notion of the flippable backrest had to be revised. It was now converted to the idea of a backrest that would turn effortlessly, like a turnstile or like a vertical seesaw. This, she felt, would allow for acts of possible cooperation or negotiation. A lot of work went into the construction of the backrest, both to make it inconspicuous and at the same time strong enough. Further, the sitting space had to be made flexible and not pre-determined in specifying a specific sitting placement. She explored how to enable this at great length through sketches and models before devising a rhomboid shape. This shape allowed for multiple ways of sitting and interacting with the backrest, without prescribing a specific or traditional sitting position.

Thus, on the resulting sofa, one person can take up a lot of space by claiming the whole backrest, resting on its mid-section. But as soon as someone else wants to sit down on the same side, they have to start balancing the backrest together for both to sit comfortably. Or, one person has to give up any rights to the backrest to the other. Many other negotiation processes were also possible, with resulting diverse sitting positions. As the sofa was now completely open to different ways of sitting Hegårdh decided to make the appearance neutral and sombre, much like ordinary furniture for public spaces, so that it could blend in, and be taken seriously. This would also strengthen the “surprise effect” of the turning backrest that was important for the experiment. The idea was that the process should be spontaneous. One would have to figure out alone, or together with someone else, how to negotiate this surprising piece of furniture.

At the exhibition, Hegårdh guided several groups of visitors, mostly teenage pupils at the near-by high school. She felt that the idea of not pronouncing gender worked very well. However to observers this was not so clear-cut; the confirmation Hegårdh found shut out other possible interpretations of what went on. Hegårdh saw cooperation; we as researchers saw both cooperation and struggle, either as deliberate play, or as unconscious action.

Stiletto by Sigrid Strömgren – conveying the sensation of balancing on high heels through a chair

Strömgren started from something associated with women and femininity – stiletto shoes. She cut out a lot of pictures of shoes from magazines during the first phase of the project. She was intrigued by how they seemed to represent a paradoxical phenomenon – both beautiful and uncomfortable at the same

time. While inspired by their beauty, she also reflected on how wearing such shoes restrain the freedom of movement, and that the wearer has to engage in an unnecessary and uncomfortable balancing act. On a meta-level this thought can be related to the way female attributes tend to tuck in, straighten out, and push up in order to beautify, thus often constraining freedom of movement, especially considering that products aimed at men are usually more practical and comfortable, allowing freedom of movement.

Strömngren thought of different ways to “close in” on the phenomenon of stiletto shoes and decided to emulate the experience of walking in such shoes through some kind of alternative object. Other group members suggested she should make a chair resembling a shoe in leather with stitching and bows, but she did not like that idea that the chair should look like a “*stylized stiletto*” – that would be too simplified and stereotypical. Instead she began to think of possibilities tied to the metaphor of *sitting as balancing*.

How the chair could convey an experience of “walking in high heels” was not clear-cut at the start and came to influence the construction. Strömngren started out with notion of using only one leg, but since a pair of high-heels is only movable sideways, after much sketching and model work, the end-result became a two-legged chair with the two legs “in-line”. The two legs made it necessary to balance sideways, like when wearing stiletto shoes.

The seat of the chair was also important for creating stability, and Strömngren made a couple of prototypes and tested them. For Strömngren it was important that the object functioned as a chair, and perhaps this ambition resulted in it turning out to be rather stable, perhaps too stable. At the exhibition, as an interactive piece of furniture, it was not immediately understood when laid down on its side, it had to be raised, tested and experienced. For some pupils visiting the exhibition, the balancing act was perceived as implying an imbalance between men and women – if society had been equal, the chair would have had four legs. Another reaction was that Stiletto was surprisingly comfortable to sit on, not as unstable as might have been anticipated, which turned out to be counterproductive to the intended meaning in the sense that some boys claimed that walking in high heeled shoes must be really easy.

Slothfully 2006 by Markus Grip – an ironic observation of male sitting and the male slacker

Initially Grip intended to make something gender neutral. He also knew that he wanted to do a piece of furniture, and when “sitting” became a discussion topic of interest among some group members, he opted for making a chair. His initial idea was inspired by the function of a flip-over. The chair would have

several seats and back rest covers with different colours and prints, and the user could choose the preferred combination by flipping through them, like when turning pages in a book. Further, the idea was to base the range of covers from on an investigation of patterns and colours preferred by men and women respectively. But even though this was a quite well formulated and realizable concept Grip felt increasingly frustrated. Mainly, he was frustrated with the need to design a neutral chair that would remain neutral because the chair itself should not “intervene” with the action of choosing or with the chosen combination of covers.

Grip struggled, then started to sketch in his 3D CAD program. He turned to his own industrial design preferences, especially to racing car design, finding that he could use these styles and expressions that he preferred. He started tweaking and exaggerating, and connected them to a stereotypical male sitting style – sitting with legs wide apart, relaxing, taking up space, hence the name “Slothfully”. Grip used the image of the male slacker as a symbol to further the understanding of stereotypical male behaviour on a meta-level, expressed in sitting as a power position - *claiming* and *occupying* space. The other project members supported him in changing the direction. This surprised Grip, but they told him that the other idea never suited him, that his ability to interpret masculinity had a greater chance of succeeding.

An amalgamation of male form and male sitting emerged. The aesthetic was inspired by Hotrods and racing cars; the tubular steel “frame” resembling a “roll cage” with sharp angles, a rough surface, visible welds and flat “primer” paint. In the early design phase Grip experimented with material and form to get the expression right. For instance, he had never worked in metal before and as a result the welds were quite lumpy and obvious. But instead of grinding down the welds to make a smooth surface, he saw that these welds could work as a kind of functional decoration. The way they were both sharp and a bit dangerous as well as “ad-hocish”, only helped to strengthen the expression of the chair – that of rawness, crudeness and masculinity.

The concept that emerged was that of a chair which would invite you to sit down and relax, and then force you, irrespective of sex, to sit as a man. This was mediated through a groin cushion that forced the legs apart. The concept was further enhanced at the exhibition through a photo drape with a staged photo showing a man sitting in Slothfully 2006 watching TV with a beer can in one hand and the remote control in the other. Grip used the photo as an alternative strategy to making the chair into a travesty, for example by adding beer can and remote control holders.

At the exhibition many of the young guys responded positively to Slothfully 2006, considering it a 'cool' and comfortable chair, and not at all provocative. This was not a surprising reaction as sitting is a behaviour that is social constructed and is also gendered, which was revealed when boys and girls interacted with Slothfully 2006. Girls generally expressed an opposite experience. Most of them felt uncomfortable and exposed. But some girls experienced sitting in Slothfully 2006 as very comfortable and for one of them it was not even seen as a typical male way of sitting any longer. Interestingly, in terms of its aesthetic, Slothfully 2006 was not perceived as ironic or masculine by many of the visitors, especially not by the male high school pupils. To them it was just cool and comfortable and several boys expressed that they wanted one. Paradoxically, some were put off by the flat red primer colour that was thought of as "girlish"; the Hotrod references were completely lost in their interpretation and the close-to-pink tone of the paint referred to something other than intended.

Interpretation of the Empirical Cases through the Lens of Hermeneutics

In this section I interpretate the three cases through the lens of philosophical hermeneutics. In so doing I revisit both Gadamer's and, more specifically, Ricoeur's main concepts as well as connect back to the gaps I found in Schön's theory of the reflective practitioner. At the end of the section I tentatively relate the findings to problem solving oriented innovation theory.

Creating within Boundaries – deliberating inevitable situatedness

The students all engaged in inherently open situations. Through initial reflection and discussion in the first phase of the project each designer established a more restricted but still rather open and complex situation. However, it would be quite difficult to find something as concrete as Petra's and Quist's "screwy slope". An alternative understanding is to see these situations as inherently complex - as "assemblages" of more or less articulated meanings, material artefacts, embodied experiences, and so on. Further, these assemblages were characteristically paradoxical and all had the character of a dilemma or mystery as, for example, how gender issues and beauty were intertwined in Strömgren's case or the ironic fact that Grip himself represented the privileged male position that he reflected on and challenged. The students engaged in situations characterized by "excess of meaning", to use Ricoeur's language. Indeed, the concept of "wicked problems" (Rittel & Webber, 1973) could be used to describe these situations, but such an interpretation neglects the fact that what was elaborated was not so much a problem but rather typical human situations where inspiration can be found in almost anything, way beyond the notion of the problem.

To understand the design process in these situations, Claude Lévi-Strauss' notion of "Bricolage" may be useful (1966). Lévi-Strauss devised the bricolage metaphor to describe how mythmaking and the generation of knowledge in "pre-scientific" cultures seems to be a "*bricolage*" of an already existing and more or less coherent or ruined heritage. In other words, situatedness is in no way an obstacle to finding *new* meaning, quite the opposite, it is a prerequisite. This resonates exactly with how Gadamer argued that being situated in the "history of effect" cannot be avoided. The design students did not shy away from this inherently complex situation, rather the opposite. It was not until complexity had reached a certain point, a "critical mass", that they found it interesting to engage and start to deliberate meaning through practice. But it also took a personal connection, a "lived experience" for interest to spark. Strömngren drew from the experience of walking in wobbly stiletto shoes, Grip from being a man (a kind of anomaly in a group where the rest of the group were women) and Hegårdh from the fascination with sitting in public spaces. This resonates well with Heidegger's "Dasein" in that there has to be something to interpret, something that demands interest, for the human being to engage at all.

Drawing from Experience - working *with* unavoidable prejudice

The above also resonates with Gadamer's idea that prejudice and foremeaning cannot be avoided in interpretation - it is an inevitable consequence of being situated. Prejudice is tied to one's own horizon of understanding and it has to be constructively engaged in interpretation as a willingness to expand this horizon of understanding and to open up the possibility of "fusing horizons" – to the understanding of something else or of the Other.

In the examples we saw this dynamic clearly, especially when understanding broke down – when interest and inspiration were lost. For example, Hegårdh's first notion was to design a chair that would enhance cross-legged "female" sitting. However this did not correspond with her own "foremeaning", it clashed with her own views of the importance of avoiding stereotypes and her interest in the individual, regardless of gender. Therefore she left this strategy and found herself much more at home in a concept that would avoid traditional gender norms and instead focus on individuality. Similarly Grip first attempted to make a chair which would enhance unisex properties. But this did not give him any inspiration. Instead he began to draw from his own "style preferences" that were tied to the masculinity that he wished to explore – and suddenly he was also "back on track".

This dynamic and the matter of prejudice was not really discussed in Schön's Quist and Petra case, although the notion "repertoire of domains" (1983:98) seems to be similar although more objectively

oriented. Such aspects have also been discussed, for example, by Darke as “primary generators” (Lawson, 2006:46) and Buchanan as “placements” (1992). These scholars frame this as design tools to engage when faced with a wicked problem or design challenge. Science and technology studies scholar Akrich sees the tendency of designers to depart from their own prejudices as an outright problem. She calls this “I-methodology” (implicit methodology), a problem that needs to be overcome through the use of *explicit* methods (1992). However to construct this either as a tool or as a problem, is, I believe, to play down the fundamental reason for this phenomena – that to interpret one *have* to depart from some sort of foremeanings, such as norms, values, preferences, and so on., and work *with* them. Such an understanding is of course no excuse for poor or normative results, which was Akrich’s concern, but it highlights the need to shift the idea of foremeaning into a one that recognises that it is unavoidable and potentially constructive.

Working the In-between – understanding beyond subject and object

Along the way, when confronted by gender issues that were related both to society and to one’s own beliefs and experiences, such confrontations could be fed into the process of deliberating meaning – questions posed led to contrasts that could be further investigated. This I believe is why Gadamer thinks of Bildung as important, not so much as something that you *have* to better understand history, but rather as something that that you *live* – Bildung as a process makes understanding possible. It seemed that there was a constantly contrasting action between one’s own horizon being changed, the changing surrounding context that in particular included the student group and the evolving artefact. It was within this ongoing and evolving “tension field” that interpretation and deliberation of meaning through practice took place. It seems that what is then enhanced is neither the subject nor the object, but rather this intertwined situation where the self also evolves. This is a dynamic that I believe is not apparent in Schön’s dialogue with the situation at hand, perhaps because it is neither a longitudinal project nor a case explicitly rich in social meaning.

In the cases there were several situations where students proposed an idea or a concept to the group, for example when Grip proposed a unisex chair or Hegårdh suggested that she would work with female sitting - and how both the response from the group, as well as the designer’s own interpretation of what he or she had “thrown forward” led to new insights – both connecting to their existing “horizon” of understanding but also provoking new understanding. Afterwards, in discussing this with the students they all described how the project had developed or changed how they understood the world in terms of gender issues and power relations etc. From this perspective designing is as much a process of

learning and understanding as about the resulting design. I believe that this relationship is also clear judging from the resulting objects. For example, in how Grip's Slothfully 2006 holds the dilemma he is caught in and deals with, or how Hegårdh's artifact expresses her reflection between two contrasting metaphors – evidence of clearly dynamic processes of reflection and interpretation. This is also exactly the communicative dimension that Ricoeur discusses - that keeps the work open and allows for yet other and unexpected interpretations. In this sense the process of ongoing communication starts already early in the design process – a more continuous process of interpretation that neither begins nor ends with the finished work or artifact – a constant looping within the process “from life to telling and from reception to life” (Kristensson Uggla, 1994).

Oscillating Between Detail and Whole – deliberating tensions between different levels of meaning

As Coyne and Snodgrass note, what Schön frames as the “*conversation with the situation at hand*” (1983:42) is at the core of hermeneutic interpretation, including the oscillating movement between “*details and the whole*”. One interesting aspect of this in the cases was how there was an apparent oscillation between the meaning of the emerging artefact and a more abstract level of socio-political gender issues - a kind of layering of meaning that was of course related to how the project was constructed. When Gadamer discusses the rather solid and homogenous, concept “history of effect” and Tradition we may simply regard it as a kind of more fluid “meta-context” of a multitude of often conflicting, transient and inconsistent meanings that are nevertheless always involved in all interpretation and deliberation of meaning. Other design scholars have also mentioned this level of meaning, for example Cross who acknowledges that “... *designers are immersed in material culture*” (2006) or Verganti who has a broader view and argues that designers as interpreters engage in the “design discourse” which includes socio-cultural perspectives on design (2009).

In the study of the three design cases we saw that this meta-context was always related to when deliberating meaning in the design process – for example in how Strömgren's work evolved in relation to how female attributes typically “... *tuck in, straighten out and push up in order to beautify.*” – in other words the typical tendency that women are restricted in society. Or how Hegårdh related her work to how identity and gender could be seen as contrasting perspectives. Manifested meaning (in the chairs) thus developed via a negotiation *between* this meta-context and the more material and practical level of the emerging object, that which would traditionally be consider the object of the design situation, (e.g. the elementary school building in the Petra and Quist case). Such meaning could be understood as an

experienced “vertical” tension between these levels of meaning that may very well be conflicting. I have chosen to call this a “register of meaning”. This register of meaning was continuously deliberated in the design processes of the cases and could be seen as an expansion of the “design domains” that Schön defined as the “... *names of elements , features, relations and actions and norms used to elevate problems, consequences and implications.*” (1983:96). The expansion made here enhance how these were not related to first of all to “evaluate” or set and solve a problematic situation, as how meaning is engaged in Schön’s case, but to help deliberate new meaning in the emerging artefact.

Another more “horizontal” tension was that between the emerging artefact and an intended user – the commonly referred to “empathic” dimension of design work. When the designers in the design cases negotiated meaning as emerging in their artefacts, they then “by default” related to what Dewey called “the perceiver” (2005), in this case to the imagined visitors to the exhibition. For example Grip used the strategy of irony by exaggerating a masculine expression, sensing that this would go down well with the audience consisting of mostly younger high school pupils. He related to this audience throughout the work, and the full aesthetic experience of sitting in the chair as well as its appearance was a direct result of this. However, to his surprise the response was clearly divided in different interpretations. Some of the pupils immediately “got the point”, and reacted positively to the intended exaggerated meaning as an interesting provocation, while others took Grip’s proposal of a very masculine chair literally, with the unintended result that the stereotypical norms that he tried to challenge by irony were instead reinforced, suggesting that to relate to the “perceiver” and manifest intended meaning does not imply “getting it right” or that the meaning is final. But it may mean that a dialogue with an intended user has taken place “in the mind” long before the artefact is made available to a real user, whether as a prototype or finished product.

The Constant Asking of Questions - the critical question at the heart of hermeneutics

Gadamer stressed the importance of the Question in all interpretation: “*A question places what is questioned in a particular perspective. When a question arises, it breaks open the being of the object...*” (ibid 362). Questions here are such that are borne out of “wondering” – of an honest wish to *understand* in a phenomenological sense. In the cases we may guess that were a lot of questions involved in the day-to-day design work but this was more difficult to observe. However, the seminars of the first phase of the project were filled with interrogative questions and discussions. Also the furniture pieces themselves may be regarded as open questions, as a contrast to less conceptual design work. When

Gadamer discussed questions, he saw them as parts of a process of intimacy with the work where “Zugehörigkeit” (belonging) must not be lost. Quist’s sketching may be seen as such a situation. However, the very *raison d’être* of the Gender and Design project was about revealing and deliberating gender issues that are otherwise hidden in Tradition and Authority. This ambition, to visualize and subvert existing power, rings true with any Critical Design practice, or indeed with any design practice that is willing to question existing norms, whether political or more practical. Indeed, Critical Theory has inspired not least artistic practice (e.g. Hannula, 2003) and also conceptual design practice, for example Critical Design (e.g. Dunne, 2005). But, as Johansson and Svengren argue based on empirical research, critical perspectives similar to Critical Theory seem vital to any design practice that wishes to propose solutions outside the existing ones (2008a:41). So there does not seem to be any contraction between critique and making – quite the opposite. Judging from these cases the power of critique indeed corresponds with Ricoeur’s notion that it is a fundamental dialectic “at the heart of hermeneutics” necessary for new meaning to emerge.

A sensitivity to how questions “break open the being of the object” may also mean to be attentive to when such openings are the result of mistake - the ability to act constructively in art on surprises or accidents, which has for example been explored by Austin and Devin (2006). Voluntary or involuntary mistakes may trigger “what goes on here?” types of questions. In the empirical design cases several such situations were observed. One poignant example was when Grip was provoked by how his rough welds on the tubular frame for the chair were a clear deviation from his slick 3D renderings. At the same time they seemed to help strengthen meaning by being sharp and provocatively “ad-hocish”, i.e. these rough welds actually enhanced the masculine expression he was looking for. So instead of grinding them down to make them smooth he kept them rough. This experience also helped him see that “roughness” could be achieved in other ways as well, for example through flat paint instead of glossy.

Metaphorical Deliberation - poetic redescription inside the process of hermeneutics

As has been noted by many design scholars e.g. (e.g. Kelley, 2001, Krippendorff, 2006, Lawson, 2006, Verganti, 2009, Schön, 1979) metaphors may help the generation of new ideas and for solving problems. I will from here on relate to an understanding derived from Ricoeur’s (1977) notion of metaphor as assisting “speculative thought” beyond “seeing-as” where he also understands images as part of metaphorical deliberation, and where he consider metaphor as acting on a discursive level rather than on the level of the word. I also relate to Lakoff & Johnson’s (1980) notion of “experiential metaphors” as

deeply connected with experienced practice and embodied behavior. In other words, while metaphors may help us see things in a new light they are also active in establishing new meaning that may be (partially) solidified in objects.

In the empirical cases metaphorical deliberation abound. It seemed that metaphorical deliberation was crucial in solidifying the otherwise slippery and ambiguous situations. Strömgren, who wanted to convey the experience of walking in stiletto shoes found that she could regard *sitting as balancing*, as a balancing act instead of traditional static sitting. This was experiencing made articulate, as a kind of tool. This understanding of sitting was kept right to the end and was thus embodied in the artifact, even though as we saw, the actual sitting experience was too stable in relation to the intended experience.

In the case of Duel, Hegårdh actually devised two conflicting metaphors of sitting together, as “*struggle*” and as “*cooperation*”. And even though she wished to highlight cooperation the artefact that she made seemed to embody *both* understandings. This also opened up a register *between* her two metaphors inside which the audience could experience the Duel sofa (note also that the name refers more to conflict than cooperation). In this sense Ulrika’s work is truly metaphoric – it opened up for interaction, discussion and experiencing among the audience as a fluid continuation of her own process of on-going interpretation. Metaphor in this case was not “only” about finding a different understanding to solve a problem, as in Schön’s notion of the “generative metaphor” (1979) – but was more in line with Ricoeur’s notion of metaphor as a continued process of open communication and creation of new meaning.

Continuous Problem Solving – innovation inscribed in interpretation

Throughout the processes practical problems were continuously solved, often in ingenious ways. Furthermore, all this problem solving was completely integrated into the process of interpretation – that is, problems were solved as needed in order for the intended meaning of the artifact to be expressed (and here I include function as an integrated aspect of the final expression).

For example, Hegårdh reflected on gender related issues in relation to design. She found that sitting in public situations was an interesting phenomenon and possibly connected to issues of struggle and cooperation in gender equality development on a socio-cultural meta-level. The notion that this dynamic could perhaps be manifested in a chair that is to be experienced emerged gradually, and with it also some practical problems to solve. She drew from different experiences and also managed to find a relationship between practice experiences of negotiating space as a kind of dynamic with another

experience of a clever backrest she had come across in Thailand. These notions were merged into the idea of a *turning* backrest which fitted or resonated with the meaning she wished to manifest.

Similarly Grip devised a “groin cushion” and Strömgren came up with a two legged chair configuration. Problems were solved and different functional solutions were made, but problem solving did not define the process. This experience clashes with the received understanding that innovation is about problem solving. Interestingly this view corresponds with research on science within the Science and Technology Studies, that science is not as “rational” as it may seem (e.g. Hesse, 1980, Latour, 1993). This reversing of the relationship between problem solving and meaning also corresponds with how Innovation scholar Roberto Verganti has proposed the concept of “design-driven innovation of meaning” where *the “... novelty of meaning and design language is significant and prevalent compared with novelty of functionality and technology.”* (2008) and where technological “epiphanies” correspond with a process of Interpretation. Verganti, by drawing on Krippendorff’s notion that design is about “... making sense of things...” (1989), further argues that innovation of meaning has been overlooked in traditional innovation theory which has mostly been preoccupied with technical and functional innovation. A similar argument is made by Lester and Piore (2004) who suggest that in order to better understand innovation we need to pay closer attention to the “Missing Dimension” in innovation – namely interpretation. What the cases show is that a hermeneutic perspective may help lift the veil to the fact that even the sudden idea does not come out of nowhere, but from a process of interpretation and deliberation of meaning, including problem solving.

“The real nature of the sudden idea is perhaps less that a solution occurs to us like an answer to a riddle than that a question occurs to us that breaks through into the open and thereby makes an answer possible. Every sudden idea has the structure of a question.” (Gadamer, 1996:366)

Final Reflection

I have drawn from three empirical cases in order to contribute to Snodgrass and Coyne’s notion that design may be understood as a hermeneutical practice and that the metaphor of the “hermeneutic circle” may reveal things that the dominant problem solving metaphor seems to cloud – especially things that correspond with the lived experience of designing. In the process I have been able to spot four gaps in Schön’s theory of the reflective practitioner, gaps that can be addressed through the lens of philosophical hermeneutics. Here Hans Georg Gadamer’s historical hermeneutics goes a long way to deepening the understanding of the “conversation with the situation at hand”. However it falls short of describing the observed critical distancing that seems fundamental to the ability to manifest new

meaning in the cases. By introducing Ricoeur's critical hermeneutics and communicative philosophy it seems that an even better fit is achieved with its articulation of practice rather than the work and with its more advanced metaphor of the hermeneutic spiral which keeps the tension alive between critique and interpretation, distance and closeness, epistemology and ontology so that Interpretation open the work to the world via the notion of poetic practice at work

Neither Schön's, nor Gadamer's or Ricoeur's contributions should be seen as conflicting concepts – quite the opposite. Together they together make up a strong case for understanding design as a practice where new meaning as well as new ingenious practical solutions may emerge through a process of interpretation and where more "rational" problem solving is inscribed in rather than define the process. This also seems to correspond with both cutting edge innovation theory by for example Verganti and Lester and Piore, but also with established Science and Technology Studies. My hope, as an engineer, designer and design researcher, is for this budding understanding to become a stronger stream in both design and innovation research in the near future and for interpretation and meaning to become more prominent perspectives also in the general discussion about innovation in business and society.

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