DOING DESIGN PRACTICE: DESIGN INQUIRY AS AN IMPROVISED TEMPORAL UNFOLDING

CHRIS HEAPE

SDU DESIGN, UNIVERSITY OF SOUTHERN DENMARK

CHRIS@MCI.SDU.DK

ABSTRACT

This paper explores the process of how meaning emerges, shifts and changes in an innovation course session held between the author and four engineers from a large European production company. The case will be described as a fine-grained, auto ethnographic account in the first person present, through a process of narrative recall. An after the fact, reflexive account that builds on discussions with those involved and notes, photographs, e.mails and other written texts made or seen after the fact. The paper focuses on the goings on of a situation, its temporal, performative and improvised unfolding. As such the account and analysis is more descriptive than argumentative. The paper is also deliberately designed to foster a discussion as to how one can actually describe the goings on of a complex process of relating without resorting to a generalised or idealised account, and to raise questions as to how this approach contributes to research.

Keywords: Design and innovation practice, temporality, improvisation, performativity, knowing, doing, making and relating, participatory inquiry, complex processes of relating, design thinking

INTRODUCTION

From both a researcher's and a practitioner's perspective it can be tempting to value a design process, and its relationship to an overall innovation process, in terms of outcome; the concept, product or service. This can in turn lead to an overt structuring and control of what are identified as the more formal stages of a design or innovation process in an effort to ensure a successful outcome. However this approach can divert attention from how things are actually achieved. Value may be lost in a design or innovation process, because the resources of those involved, how they get things done on a day to day basis, are not identified as such.

UNFOLDING PRACTICE

METHODOLOGY

The emphasis of how the case was both initiated, explored and considered reflects a wish to understand how those involved, including the author, experienced and made sense of the situation. As such a phenomenological, hermeneutic approach was adopted where phenomenology is understood as, "...essentially the study of lived experience or the life world" (van Manen 1997 in Laverty 2003 p. 4). "Its emphasis is on the world as lived by a person, not the world or reality as something separate from the person" (Valle et al. 1989 in Laverty 2003 p. 4). As regards the participants' and my interpretations of what was going on, I also adopted a hermeneutic approach where according to Fink-Jensen (2006: 1-5) one considers: "the interpretations of actions and events in given situations as dependent on the unity, consistency and internal logic of a statement... A hermeneutic phenomenological perspective points to the understanding of human actions as "articulations of meaning." For a hermeneutic phenomenological project the "multiple stages of interpretation allow patterns to emerge" (Koch 1995 in Laverty 2003 p. 23) between the researcher and the participants, which are used to generate a synthesis of evolving understandings in close relationship to the

particular context or as Whitehead calls it "... a temporary coalescence of views about a phenomena or experience" (Whitehead 2003 p. 513).

METHODS

The case study described, and the overall innovation endeavour it was part of, was as an action research project where I considered my position as one of being involved in the goings on, rather than as setting processes in motion and withdrawing to act as the "disinterested observer" (Schutz, 1962 in Schwandt 2000 p. 193). The account is based on how I related and responded to the evolving situation with those involved and how I interpreted and reacted to what was happening and what was said. This was sometimes done on the fly in response to a particular development, sometimes as a reflection on the day's events after the fact or as this text is written. As such I adopted the role of interventionist, where I was in a co-learning situation with those involved. I find the terms "co-learning" and "co-generative dialogue" (Elden and Levin 1991) central to that of action research, where with those involved, the learning that arises as a result of initiating a research experiment or situation and its evaluation then influences how I make or amend the next moves. Elden and Levin specify this by noting that a researcher has the "...role of "co-learner" rather than of "expert in charge of change" and s/he can ""fade out" to allow participants to take charge of their own learning" (ibid:129).

The case will be described as a fine-grained, auto ethnographic, narrative account in the first person present, through a process of narrative recall. An after the fact reflexive account that builds on discussions with those involved and notes, photographs, e.mails and other written texts made or seen after the fact.

IMAGES, METAPHORS AND DESCRIPTIONS

In his chapter "Routine Pleasures: The Aesthetics of the Mundane," David Silverman (2000: 130-131) introduces Morgan's (1986: 344) observation that: "Images and metaphors... are central to the process of imaginization through which people enact or 'write' the character of organizational life." Silverman goes on to describe how "organizational members themselves work with images and metaphors to establish the 'whatness' or 'quiddity' of organisations," a whatness that reflects a turn in organizational studies towards "exploring and representing the extraordinary qualities of the ordinary" (Jeffcutt 1993: 47). Silverman introduces Wittgenstein's interest in the "meticulous examination of apparently unremarkable concepts."

"What we are supplying are really remarks on the history of human beings; we are not contributing curiosities, however, but observations which no one has doubted, but which have escaped remark only because they are always before our eyes" (Wittgenstein 1968: paragraph 415).

Silverman dubs this ordinariness of practice variously as "the aesthetics of the micro-order"(2000: 131) or "the aesthetics of the mundane" (ibid: 138) and calls for a focus on this ordinariness in contrast to "heroic conceptions of meaning," that focus on accounts of "the moving or shocking story told to us by an interviewee or observer in the field. The danger is that such an answer mistakes what is immediately newsworthy for what is important" (2000: 136).

Similarly Janet McDonnell (2009: 3) describes a researcher's "attention to the fine detail of what actually takes place during everyday design interactions" as an attention that can reveal the "overlooked aspects of lived experience..." and "bring the dignity of ordinary behaviour into view" (McDonnell 2013). The quality of which one could almost call the intangible stuff of social interaction, the extraordinary that lies waiting to be identified in the ordinary goings on of how practitioners get things done.

One thing is noticing aspects of lived experience, the other is how one then describes them. As regards the language used to describe the temporal and improvised nature of practice, Gatewood (1985) suggests that "we change our analytical language habits. Rather than speaking of ideas, concepts, categories, and links, we should speak of flows, contours, intensities and resonances." Similarly Conquergood (1989) sums up the split between performativity as practice and its expression as theoretical text, as a war of vocabulary, where "the benign forces of improvisation, flow, process, participation, embodiment and dialogue are ranged against the enemy lexicon - fixity, structure, objectification, reification, system, distance, and detachment." One can ask: Does the language we use to express our understanding of practice run counter to how people actually get things done?

As such, the central question this paper will focus on is: How can one describe and understand the temporal, emergent and improvised unfolding of a situation that closely equates with that situation rather than resort to a generalised or idealised account?

NARRATING THE FLOW

I'M ON TO SOMETHING, BUT I'M NOT QUITE SURE WHAT!

This case study describes a second session with a group of four engineers, Group G, the first session of which is described in detail in Sproedt & Heape (2014). The overall setting is a three-month innovation course that was carried out in a large European production company where twenty-five engineers were asked, in interdisciplinary groups of four and five, to identify relevant company projects that reached for new ground.

The location of the first meeting created an incongruous situation. The formal nature of the setting, a boardroom, was not conducive to exploring risk and improvisation. The stiff surroundings felt uncomfortable. This was not

the case when I meet the group for a second session two weeks later. This next meeting is to be held in the company's "innovation room," a long box of a room that has been built into one of the open office areas. The only natural light in the room comes from a row of upper windows that look onto the office space. However, the room is brightly lit. Assorted, upholstered, "laid back," easy chairs signal that this is a room different to the rest of the company's office areas. A two metre high length of white plastic foil has been stuck to three of the room's walls turning them into a giant whiteboard.

On the longest wall, opposite the door into the room, four rows of assorted post-its have been grouped under a heading for each: Innovation, Scope, Knowledge Sharing, Requirements, Stakeholders, Quality, Process Equipment and Material Equipment In an effort to identify qualities across the post-its the group had restructured them into four sub-groups: Technical, Stakeholders, Process / Method, Interconnections / Sharing.

As we greet each other I sense the group is "lighter." They seem more relaxed compared to our last meeting. There is an air of expectancy, rather than anxiety. This is a relief to me, as I had been seriously concerned after our last meeting. Was my approach to this course, of not giving them a specific plan beforehand, going to work or fall to the ground? They introduce me to what they have done since our last meeting and explain the new arrangement of post-its on the wall. There are considerably more than at the first meeting. But, as one group member wrote in his reflection on this session: "There existed a big cloud of correlating material. And although we had grouped the material, it did not make any sense, yet. There was too much fuzziness that we somehow needed to connect and link together." Their task at this stage is to generate a common project theme between them, rather than use one individual's project proposal.

I am posed almost the same question as last time: "So, what should we do now?" My reply this time is at first rather flippant, "I really don't know. I've not seen this before." I say this with a smile. I have used the technique many a time with students. It is, in my experience, the quickest way to resolve the expectancy that I am the expert. I have, after all, never met exactly this situation before. As far as I am concerned, the quicker I establish the notion that we are exploring this together, rather than my having the answers, the better. My second reply throws the ball back into their court: "Well what do you think you should do?" I emphasise the "you."

I suggest we see what they have done. We approach the whiteboard wall and they begin to explain the key words on the various post-its. Their explanations are deadpan. They read out the key words, but have difficulty in seeing how they could reach across their material, see the interconnections. I also register that

although there are considerably more post-its than last time, from my experience there is still too little to be able to generate new links and relationships in the material. We have a brief discussion as to why they need to increase the complexity of their material in order to identify those new relationships.

They say they understand my point about generating more complexity, but quite naturally ask me how to do this. My dilemma is that I actually don't know. Although I have worked with many students, I have never been presented with a situation that seems so blocked. Normally I would ask students to engage more user situations or imagine a range of scenarios, which in itself would generate more material. But in this case, the project is more technologically oriented. Or is it? Wondering what to do, which I voice to the others, I see two possibilities.

For some reason the notion of imagining into the unknown seems a plausible way forward, but how to get them to do this? How to get the group to discuss something they don't know? So I ask the group to individually take two post-its, quite by chance, and to spin an imaginary scenario around the two post-its. They do this, but their choice of post-its is deliberate and methodical, almost as if they are guarding themselves against getting into deep water. The results are predictable. As one in the group wrote in his reflection: "We started with generating the most obvious technical questions, such as; "How does gel time affect the equipment?"

Somehow I have to find a way to encourage the group to move into that deeper water of what they don't know, the unknown, and away from the purely technical, the known. I ask them to recount what was the most important point to arise at our last meeting. They unanimously agree that the exchange between L and N at the last meeting and their question, "Who do I and who can I share my knowledge with?" and the question I wrote as a header on the whiteboard: "How can knowledge sharing expand and influence our development process?" as probably the most important. I next ask them to identify one post-it on the wall that most closely reflects that concern. They find one under the Stakeholder heading: "Who are the right stakeholders?"

I write this as a heading at the top of the whiteboard wall. Under this I write. "How does identifying the right stakeholders and knowledge sharing..."

My two headings on the wall now are:

Who are the right stakeholders?

How does identifying the right stakeholders and knowledge sharing...

I then pick two post-its from the wall: 1.) pulsating flow, 2.) quality of mixing ratio, without even looking at them, and ask the question: "How does identifying the right stakeholders and knowledge sharing effect the

quality of pulsating flow and mixing ratio? I write this on the wall under the first two headings.

The wall now has on it:

Who are the right stakeholders?

How does identifying the right stakeholders and knowledge sharing...

1.) effect the quality of pulsating flow and mixing ratio?

There are a few laughs from the group then silence. One says: "but, you can't ask a question like that. It doesn't make sense." My response is to ask them to imagine how it can make sense. They then remember N's discovery at the last meeting of how her knowledge could have influenced the design of L's equipment, which deals with mixing ratio.

I repeat the process pulling this time the post-its: 1.) opening time, 2.) cost savings, from the wall.

The wall now has on it:

Who are the right stakeholders?

How does identifying the right stakeholders and knowledge sharing...

1.) effect the quality of pulsating flow and mixing ratio?

2. opening time effect cost savings

The discussion begins to get livelier now. It's as if they see the point. Or at least are able to engage each other in a discussion as to what this new question could mean. It is only after this second question that I also realise what I am doing. By colliding two post-its that might not otherwise be linked, I am giving them something they know and understand, but cast them into the unknown by asking them to imagine the new situation the post-it generates. Each post-it only represents one part of the new context they have to now imagine. If they only thought of the one, for example, opening time they would no doubt have thought of a range of technical and work process issues related to the opening time of a mould. The contextualisation into the unknown by colliding opening time with cost savings within the theme of identifying the right stakeholders creates a scenario they would probably never have imagined. This enables a projection into the unknown, but with threads of understanding reaching back to what they do know. A lifeline, if you will, they can hold onto in the unknown. I have done this with students and there are many examples in my study (Heape 2007), but these brought general associations and metaphor into play, whereas in this situation a highly technical, scientific and organisational world is being brought into play.

The transformation in the group is quite remarkable. Having seen how the process works they leap at the opportunity to play along. I ask them to continue with picking the words and generating the questions, which I wrote on the wall. I have again chosen to adopt a role where I am now working with them rather than showing

them. The discussions are rich with cross-references to process, business and organisational issues across the whole company. D, who up until now has held a very low profile, suddenly comes into his own. As his position deals with quality and safety he is the member of the group who works across most of the organisation. He is now able to engage his experience as questions are raised.

At the end of the two hour session, about two thirds of the whiteboard wall is covered with questions and comments. As one in the group wrote in his reflection: "The question generation process was an interesting one. I believe this was the point where the team really saw the purpose in what we were doing. Having little experience with this technique we discovered that generating associations and links was an extremely valuable exercise; not only on a project level, but also on a team level. We were doing something together and generating value. This was very motivating." At the end of session the same person said: "I am on to something, but I'm not quite sure what." His later written reflection was: "We had not yet fully articulated our main problem statement, but subconsciously I knew that we had captured something within the cloud of material."

ANALYSIS

I have indicated my wish to focus on the emergent, temporal, performative and improvised unfolding of the goings on of the case described above. As such this will be the principal focus of the analysis.

If there is a common denominator to emerge from the two sessions with group G, it is, for both the group and I, a question of "how to imagine beyond what we know?" We were all five of us continually brought into situations, albeit briefly at times, where we were improvising with flows, intensities and resonances (Gatewood 1985) that were new to us. This analysis will attempt to identify and describe how they unfolded from moment to moment. I will also try to indicate how a will to fix and hold onto the known influenced us when we, in one way or another, attempted to resist improvisation and risk taking thus creating tensions in the flow.

REVEALING THE PATTERNS THAT CONNECT

By listening to what the group was saying about their post-its on the wall and probably more importantly how they were describing them, I got the clear impression they were struggling to find the connections that could reach across their material. Again, it was the insufficiency of their material, even though they had produced more that helped me make my next move.

My dilemma was how to encourage the group to leave their safe ground and move into unknown territory. By voicing and sharing my dilemma with them, by engaging them in the discussion around the concept of creating new relationships in their material, I realise now I was doing two things. Firstly, I was using the discussion around my dilemma, which was also theirs,

simply to keep the conversation going. I needed to also create new links to what and how they were saying things. So, as we continued the conversation, I was sensing on my feet, as it were, waiting for the hints and suggestions that made enough sense for me to make a move.

As with the session at the first meeting this process of waiting and listening seems to be necessary for me to weave together hints and clues into a cue that is strong enough for me to act on. So in that sense I deliberately allow the situation to hang in order to harvest indications, hints and clues from the flow around me in order to construct sufficient insight that can amount to a cue. I almost wrote "sufficient understanding," but the knowing that emerges in this cueing process is hardly structured or articulate enough to warrant the word understanding. I think if someone were to stop me and ask what I had registered in the moment, I'd have difficulty expressing it. It more often takes on the character of images and associations that emerge or almost spring up.

Two points are worth noting here. When I let a situation or series of moments hang I am not actively seeking its resolution by trying to over notice. I am content to allow the ambiguity and complexity of the situation to grow, as I know from experience that it is in the micro complexity of a series of moments that I will be able to identify the new relationships, the threads that I can weave into a cue that makes sense and on which I can act. I deliberately wait until this happens. I rarely try to rush it, which can at times confuse those I am working with, as it can seem that I am not responding to their gestures. The other point that is important to emphasise is that in this process I do not feel I am outside the flow as a listener or spectator. This is not the case. It is exactly because one is in the flow of an unfolding situation with others that the cueing process can occur. A metaphor that I feel describes this well is how, as a stream flows past, one can see small eddies that circle on its surface at a slower pace than the main stream, but flowing with it. Eddies that are thrown up from undercurrents set up in the flow. I feel that when I am in this cueing process, I am both in the surface of the flow, doing things with the others, attending to the reflections on the surface, whilst at the same time, as I flow with and sense the undercurrents under the surface, I am able to catch the hints and clues that emerge from the undercurrent as they rise to the surface as eddies in the stream. I wait until enough of these have risen to the surface to give me sufficient insight on which I can act.

Another, less metaphorical way of describing this is that I was engaged in an *attuned perception* of the specifics of how the group and I were performing in the moment to moment unfolding of a local present with the task at hand, and on a broader, more general level I was engaged in an *appreciative awareness* of the situation as a whole, in order to identify, judge and weave together the hints and clues that were emerging from our relating into cues as to how to move the process forward.

Attuned perception and appreciative awareness are in constant transaction with each other, the one effecting the other, a shifting back and forth between the figure, attuned perception, and ground, appreciative awareness. Standing there, waiting to act, the first cue to emerge came from my work with students. I suggested to the group that they choose two post-its from the wall and use these seemingly disparate parts to imagine with. I know the power of this process, so I was caught unawares by the group's guarded choice of post-its.

On reflection it is quite understandable that they were unwilling to be confronted with two post-its they might risk not being able to make sense of and maybe lose face in the process. I had also failed to show them how to do this, how to use the process to generate a question. It also seemed as if they were unable to relinquish the hold the known had on them to reach for what they didn't know. It was clear they had forgotten how they achieved this at the last meeting. But then how could they? It has taken me until now, as I write this analysis, to see how that process actually worked, how the potential that arose in the discussion was leveraged. Luckily the group also recognised the limited effect of their efforts at this stage.

I have difficulty accounting for my next move. Why ask them to identify something they felt as significant from the last meeting? They identified the exchange between L and N, their question, "Who do I and who can I share my knowledge with?" and the question I wrote as a header on the whiteboard: "How can knowledge sharing expand and influence our development process?"

I can see now that I was asking them to identify something of value from the last meeting. I was asking them to look back, re-imagine and re-identify with the situation where something new arose that made sense to them. But I am unsure how the idea for my move arose. Maybe as I've indicated, I was trying to catch hints and suggestions from what the group was doing even though it wasn't working out that well for them. Maybe I felt their discomfort, the tension in the flow. I was certainly worried at the time that the process was stalling. Maybe my sensing, the knowing that emerged, was on the lines of: don't keep people in an insecure situation for too long, give them something to motivate them again. Nevertheless, our interactions together enabled the idea of identifying something of value from the first meeting and then finding a post-it in the present situation that reflected that value to emerge. The post-it "Who are the right stakeholders?" became the key that unlocked the process.

For the next process to proceed I was well aware that I had to provoke the group into making the leap into the unknown. I had prepared my strategy, but it demanded I could respond to what the group remembered from the last meeting as of value. I could not know what they would come up with or indeed what post-it they would find in the present situation to match it. Nor did I know, until I had those two pieces, what I would do next. This

degree of improvisation with others comes from experience. As much as it is a surrendering to the situation as it emerges (Barrett 2000), it is also a process that rests in the assurance that something will reveal itself, something I can work with. It is not an individual improvisation, but an improvising with the situation as a whole and with what is continually emerging from that situation, including those involved. Improvisation is, as Elizabeth Hallam and Tim Ingold (2007: 12) describe: "the way we work... Life... is a movement through a world that is crescent. To keep on going it has to be open and responsive to continually changing environmental conditions... Fluent response calls for a degree of precision in the coordination of perception and action that can only be achieved through practice."

In the crescent moment just before the group both identify a value from the last meeting and identify another from the present situation when they choose their "Who are the right stakeholders? post-it, my surrendering to the situation is different to the incident in the first meeting. There I had little to go on, I was hesitant, doubtful even. In this second meeting however, I was quite at ease I recall, assured in the fact that "no I didn't know what was about to happen, but felt I would know how to act once the situation revealed itself," as was the case.

What followed was quite remarkable for all of us. The provocation on my part was to ask the group to imagine how two unrelated aspects of their company could work together. In other words, I was asking them to make sense of what for them was non-sense by imagining how it could make sense. The word "could" is key here; it projects and operationalises into the future. The group could project two known parts e.g. pulsating flow and mixing ration or opening time and cost savings into the unknown and imagine them together. The other move, I realise now, that was key, was my use of the word "effect" in the sentence "How does identifying the right stakeholders and knowledge sharing effect the quality of pulsating flow and mixing ratio?" The word effect both operationalises the post-it collision and contextualises it in relation to "stakeholders" and "knowledge sharing."

In other words the projection into the unknown is now qualified. It can become a place in imagination rather than being anywhere. It gives the four in the group somewhere to go in their imagination in order to do, in relation to stakeholders and knowledge sharing. By introducing a fictional dimension to the process, a worldview is opened up that they don't know and don't immediately have the answer to. On a relational level, we are all brought into an arena where it was legitimate to play around with non-sense and see if it could make sense. In this kind of sandpit, the risk of losing face was minimal. All are very equal in their efforts to engage and play along, which they do with an unbounded enthusiasm. It was an exhilarating process for all of us. The tension in the flow was released.

One can also say that during the post-it collision and question generation process, group G were expanding their known material by "probing and forging connections in the unknown" (Ochs & Capps 1996), through the co-construction of narratives with their post-it scenarios and rich discussions in order to imagine possibilities until they made sense as questions. These in turn became an articulated gathering of potential material that could inform their task. The questions we wrote on the wall can be thought of as waymarkers set down in the space of their inquiry as indicators that hold transient meanings as a "this is what we know for now" (Heape 2007: 208). The structuring and restructuring of which occurred after the session described here, where they literally cut up and rearranged their questions to reveal the latent patterns that could connect. This sense of what "we know for now," is articulated almost verbatim at the close of the session by one of the participants when he said: "I am on to something but I'm not quite sure what." His later written reflection was: "We had not yet fully articulated our main problem statement, but subconsciously I knew that we had captured something within the cloud of material."

The interesting aspect of this is to see how this person, and I would suggest the group as a whole, had shifted from their desire to want to know it all before making a move, to a position where they were able to rest in the understanding that the something they had glimpsed in their inquiry was enough for them to act on and move forward with. In a sense they had agreed that to not know it all, to work with a degree of ambiguity, was acceptable.

On reflection, I am sure that one of the reasons this last process of the second meeting was so successful for us, both as regards the relating and the shaping of the inquiry, was that briefly the group experienced an improvising where, although they were working with risk, they could rest assured that even though they didn't know what was going to emerge from one moment to the next, they would be able to work with what arose. I am sure it was because the base material they were working with, the post-its they had generated from the knowledge of and experience in their company, they did know a lot about and were very familiar with, which meant they could improvise with the imagined scenarios that the post-it collisions created. They had two parts that were recognisable in the unfamiliar terrain of an imaginary scenario to which they could orient themselves as they explored the unknown. Again, an instance of enabling a projection into the unknown or somewhere they didn't know, but with threads of understanding reaching back to what they did know. A lifeline, if you will, they could hold onto as they explored the unknown. I can't think of a better phrase that sums this process up than how one in the group expressed it in his reflection: "We were doing something together and generating value. This was very motivating."

CONCLUSION

This paper seeks to explore and articulate design and innovation practice, as the moment to moment, improvised and temporal unfolding of an inquiry. A participatory inquiry that interweaves the Knowing, Doing, Making and Relating of those involved, and leverages the participatory nature of communicative interaction between people.

Despite the fact that this case study only represents a fraction of what occurred over the course of three months, and reflects for the most the voice of one person as designer, design researcher and organiser of the innovation course, it does however present the possibility of seeing and understanding how a group of people get things done in an environment that is essentially engineering, science and business oriented. The case study revealed that two of the most basic elements involved are those of gesture and response (Mead 1934), and shaping and relating, or how the ongoing inquiry is shaped by gesture and response, the relating, and vice versa, where the potential for variations of interpretation (Stacey, Griffin & Shaw 2000: 3) and transformation lies in the tensions engendered between the positioning of those involved. It also became clear that the knowing, doing and making of those involved are constituent parts or expressions of the relating.

The notion of flowing from moment to moment or from gesture to response is often referred to in this text. However, a danger is that this can allude to a linear unfolding. There was more going on, as those involved were also attending to the dynamic contingency of the situation they were in. At any given moment in the situation we were in and as bodies in a spatial relationship that was continually shifting and changing, there was a multitudinous array of gesturing and responding going on at the same time. An interruption, a stopping, a trailing off or the completion by another of what one participant had started was an interweaving of gesture and response as we introduced and changed our interpretations and understanding of what the task entailed or could develop into, and as we shifted our physical positioning in relation to one another, the whiteboard, the post-its and the furniture. There was much gesturing and responding that was half articulated, half gestured in the full sense of the word. Nods, smiles, hand movements, shrugs, were also part of the array of gesturing and responding that was occurring at the same time. Gesturing could trail off or stop abruptly, or a responding didn't become part of the flow as opposed to that which did. In other words there were different layerings of intensity and significance that arose between the participants and different layerings of dwindling significance that faded away. We were five people conducting our inquiry all gesturing and responding variously at any given moment. For some, something was relevant, for others not so. For some, something of significance manifested itself across the space of gesturing and responding as emergent parts that

were gradually woven together into something that made sense for now as new clusters of meaning that could just as easily crumble and fade as they were challenged by new understanding or questioning that emerged.

In other words "arcs of presentness" (Stacey, Griffin and Shaw 2000) were continually emerging, overlapping, fading and growing as their resonance, intensity and meaning dissipated, hovered and influenced other specious presents in their emerging. I would like to suggest that this experience of meaning and presentness was happening at different moments according to who was noticing what or who was responding to what. I think it is an illusion to think we were all noticing the same at the same time. This could be taken to mean that the temporal structure of any one moment in the flow of events, its presentness, adopts a structure that is less time oriented, as in from one second to the next, but more noticing oriented. When was something noticed or not, attended to or answered to? That instead of thinking of gesture and response as one of going from moment to moment in a linear fashion, it is going from node to node of meaning making or non meaning making across the space of an inquiry according to the contingency of that inquiry at any given moment. The process of meaning making, its thematic patterning arose from the identification of new relationships between the parts. Parts that did not necessarily have a relationship to what just happened or what came next, but to something that could be elsewhere in the temporal spatiality of process.

To expand the visual imagery of Jeanne Bamberger's (1991) metaphor of participants' verbal reflections criss-crossing and influencing each other as the rippling reflections of light on water, I see the space of any moment of inquiry as an array of gesture and response continually emerging, interweaving, shifting, dissipating to emerge anew. As an array of light flickering on water, constantly shifting as eddies of cues, hints and nodes of meaning well up from the undercurrents of sense making and interacting, the sway and swell of knowing, doing, making and relating. A shifting that ripples through with "one person's description, view, insight transforming as it bounces off the meanings held by others as the transforming reflections of shapes in moving water" (ibid: 45).

Meaning emerged in the inquiry as cues, hints and nodes that were gradually woven together into something that made sense. The learning that drove the inquiry and shaped the relating, and vice versa, was being gleaned across the space of gesture, response and time. Or to use my own image, numerous eddies were welling to the surface thrown up by the undercurrents of the gesturing and responding across the space of time. Eddies that had more or less significance at various times for those involved. Past moments were drawn back and responded to, others were anticipated both in relation to the here and now or to what might have happened some minutes or seconds ago.

The aim of this paper was to explore how one can identify and describe the moment to moment unfolding, and emergent shifts of new meaning in design and innovation practice in terms that lie close to that practice, rather than as an idealised, generalised or abbreviated account. Considering the case study described in this paper, it's worth posing the question: Is the process primarily about thinking? On the other hand is it only about embodied knowing, doing, making and relating? Where does imagination or knowing sit; in the mind, the body, in between or simultaneously in all three? It really doesn't make sense to distinguish between mind and body nor does it make sense to use a term such as design thinking to describe a process, the complexity of which reaches far beyond the cognitive!

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