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Military Officers and the Design Gaze: A Study of how Danish Military Officers Experience Challenges and Possibilities when seeking to apply Design Approaches in their Everyday Work

Therese Heltberg

Introduction

In 2017, the JMSS published a special issue, *Reflexive Military Practitioners: Design Thinking and Beyond*, which addressed the introduction of design thinking methodologies in defence forces. At that time, within the span of a few decades, design thinking ideas and methodologies had been introduced in varying degrees in doctrine,[1] practice, research, and education in many Western defence forces.

[1] I. Porkoláb and B. Zweibelson, "Designing a NATO that Thinks Differently for 21st Century Complex Challenges," *Applied Social Sciences* 1 (2018): pp. 196-212; A. Jackson, "A Tale of Two Designs: Developing the Australian Defence Force's Latest Iteration of its Joint Operations Planning Doctrine," *Journal of Military and Strategic Studies* 17, no. 4 (2017): pp. 174-193; USJFCOM, *Planner's Handbook for Operational Design* (Version 1.0) (Suffolk, VA: USJFCOM Joint Doctrine Division, 2011); US Army. *FM 5-0 The Operations Process* (Headquarters, Department of the Army, 2010) https://irp.fas.org/doddir/army/fm5-0.pdf

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Since the inception of the concept of *Systemic Operational Design* in the Israel Defence Forces (IDF) in the late 1990s,[2] design methodologies have attracted increasing interest among Western militaries. This interest has partly been fueled by diverse military experiences with interventions in complex conflict areas, such as Afghanistan and Sahel, as well as by scenarios for threats and conflict types that defence forces are expected to meet in the future. These threats involve multiple battle domains, multiple technologies, multiple forms of information, and multiple stakeholders and actors with multiple perspectives and objectives.[3] These developments have prompted many military organisations to consider conflicts and intervention more holistically[4] and to look for new approaches to the understanding, planning, and conduct of operations. Design has been considered one such novel approach or praxis to disrupt and challenge traditional military planning methodologies.

Since the 2017 JMSS special issue was published, design thinking has in many ways strengthened its position on military agendas worldwide; although, as noted by Heltberg et al.,[5] design can still be considered a niche vis-à-vis the strongly institutionalised military planning doctrine. In recent years, military research on design thinking has been particularly concerned with exploring and developing its relationship with traditional military planning approaches and worldview.[6] Another branch of

[2] O. Gracier, "Self Disruption: Seizing the High Ground of Systemic Operational Design (SOD)," *Journal of Military and Strategic Studies* 17, no. 4 (2017): pp. 21-37. See also: S. Naveh, J. Schneider, and T. Challans, *The Structure of Operational Revolution: A Prolegomena* (Leavenworth: Booz Allen Hamilton, 2009).

[3] C. Coker, *Future War* (Cambridge & Malden: Polity Press, 2015); TRADOC. *The Operational Environment and the Changing Character of Warfare* (Fort Monroe, Virginia: TRADOC, 2017); USAFSG, *The Character of Warfare 2030 to 2050: Technological Change, the International System, and the State* (Arlington, Virginia: US Army Future Studies Group, 2017); NATO, *Science & Technology Trends 2020-2040. Exploring the S&T Edge* (NATO Science & Technology Organisation, 2020); A. Rossiter, "Participation in Warfare: Are We Witnessing Paradigmatic Change?" *Journal of Military and Strategic Studies* 19, no. 3 (2020): pp. 114-124.

[4] NATO, *NATO Comprehensive Operations Planning Directive* (Brussels: NATO, 2013).

[5] T. Heltberg, A. H. Krogh, and K. Kyne, Working paper: "Military Design in European Defence Forces," *Handbook of Military Sciences* (Springer, 2022).

[6] P. Beaulieu-B and P. Dufort, "Introduction: Revolution in Military Epistemology," *Journal of Military and Strategic Studies* 17, no. 4 (2017): pp. 1-20; E. Cardon and S. Leonard, "Unleashing Design: Planning and the Art of Battle Command," *Military Review* (Mar-Apr 2010): pp. 29-39; B. Zweibelson, "Blending Postmodernism with Military Design Methodologies: Heresy,

interest has concerned the introduction of design into military education.[7] But very little research thus far has scrutinised what happens when design is applied *in practice* in military organisations (until recently, there has been very little practice to study at all). There is a lack of knowledge regarding how design thinking – as a framework of individual and shared understanding and methodology – is received, incorporated, and enacted *in everyday work-life performances* in military contexts. A major task for design thinkers and practitioners, therefore, remains to explore how the introduction and use of design methodologies and approaches in military organisations are experienced, including the opportunities and resistance that are met. This knowledge is important for managerial and executive personnel, who must implement design thinking in practice, and for military organisations in general in terms of being able to restructure or adjust themselves if they want to embrace design potentials.

This article builds on the findings of a qualitative research project conducted in 2018 and 2019 studying Danish Defence work practices. The study involved six military officers enrolled in a design course at the Danish Defence Academy. It examined their efforts to enact various tenets of design thinking in their work-life during and after the course. The key interest of the study was to explore what happens when staff introduce and employ design in their everyday work-life in military organisations. More specifically, the study explored when and how the officers found design approaches useful and how the application of design thinking contributed to transforming their understandings of complex problems as well as their approaches to solving these problems. The study noted openings, challenges, barriers, as well as ethical dilemmas experienced by these officers when attempting to use modes of design thinking and

Subversion, and other Myths of Organizational Change," *Journal of Military and Strategic* Studies 17, no. 4 (2017): pp. 139-164; C. Wrigley, G. Mosely, and M. Mosely, "Defining Military Design Thinking: An Extensive, Critical Literature Review," *She Ji: The Journal of Design, Economics, and Innovation* 7, no. 1 (2021): pp. 104-143.

[7] P. Mitchell, "Stumbling into Design: Action Experiments in Professional Military Education at Canadian Forces College," *Journal of Military and Strategic Studies* 17, no. 4 (2017): pp. 84-102; C. Paparone, "Critical Military Epistemology: Designing Reflexivity into Military Curricula," *Journal of Military and Strategic Studies* 17, no. 4 (2017): pp. 123-138; T. Graves and B. Stanley, "Design and Operational Art: A Practical Approach to Teaching the Army Design Methodology," *Military Review* (Jul-Aug 2013): pp. 53-59; S.L. Pettit and D.M. Toczek, "Like Hugging Grandma: Introducing Design into a Military Organization," *Journal of Military and Strategic Studies* 17, no. 4 (2017): pp. 166-173.

practice in their work-life. This article presents three main organisational implications to which the research pointed. Central to the article is its suggestion of the concept of a *design gaze*, which is equally seen as an approach employed by the officers involved in the study and as an analytical approach employed by the article. The article launches from the observation that by introducing design into military doctrine and education, a new way of seeing and filtering the world is installed in the military practitioner. This *installation* changes ways of observing, perceiving, and doing.

While the findings and conclusions presented in this article directly concern the application of design in military settings, they may also prompt us to consider, more generally, the readiness of military organisations to accept and incorporate new ways of thinking and doing. In light of the speed of development of digital and technological advances and the increased complexities of current and future theatres of conflict, it is of utmost importance that military organisations become conscientious about innate obstacles to organisational change. In this way, this article also taps into central questions regarding the organisational learning of defence forces.

The article begins by briefly outlining the conjunctures of design as an approach that is increasingly suggested to meet complex problems encountered by military organisations. Here, it contrasts fundamental approaches and notions of design thinking with classical military planning processes. Next, the empirical basis and methods of the research study are laid out, before elaborating on the design gaze concept, which is employed both as an analytical construct derived from the empirical data and as an analytical tool. The article then turns to the findings and analysis section. It concludes with a summary of findings and discussion points.

Design Thinking and the Military Planning Paradigm

Design thinking comprises a conglomeration of different theories, methodologies, and values. It aims at addressing complex and multi-dimensional problems with multiple stakeholders. Its fundamental perspectives are drawn from systems theory and social constructivism, focusing on holistic aspects of problems and their context, and seeking to incorporate multiple perspectives in the understanding of

problems.[8] Design methodologies are divergent, participatory, and inclusive of many perspectives and elements in their processes. They include phases such as the exploration of the problem space (using methods such as interviewing and reframing); ideation (e.g., by brainstorming and scenario-building); modeling and prototyping (using visual and/or tangible materials); and testing by use of, for instance, user journeys or small-scale experimentation.[9]

The call for design thinking as a novel praxis in military institutional contexts has not been issued in an organisational void. Defence institutions are increasingly complex organisations with multiple, specialised, and yet intertwined, commands, departments, and functionalities. Soldiers and officers are woven into a web of practices and ways of thinking through the organisational structure and valorisations; the means of recruiting and educating; and through the military doctrines, manuals, and technologies.[10] Military scholars have described how central theoretical tenets of design thinking are challenging deeply rooted military ways of planning and structuring along with inherent ways of comprehending the world.[11] In particular, design thinking has been contrasted with classical military planning and problem-solving processes. One central difference is that design thinking takes complex problems to be multiverse. The comprehension of their dynamics and conjunctures depends on whose perspective is

[8] P. Beaulieu-B and P. Dufort, "Introduction: Revolution in Military Epistemology," 2017; P. G. Rowe, *Design Thinking* (Cambridge, MA: MIT Press, 1987); D. A. Schön, *The Reflective Practitioner. How Professionals Think in Action* (London: Routledge, 1983); H. A. Simon, *The Sciences of the Artificial* (Cambridge, MA and London: MIT Press, 1996); M. Lauder, "Systemic Operational Design: Freeing Operational Planning from the Shackles of Linearity," *Canadian Military Journal* 9, no. 4 (2009): pp. 41-49; Porkoláb and Zweibelson, "Designing a NATO."

[9] K. Dorst, "The Core of Design Thinking and its Application," *Design Studies* 32, no. 6 (2011): pp. 521-532; K. Michelewski, *Design Attitude* (London and New York: Routledge, 2016); H. G. Nelson and E. Stolterman, *The Design Way: Intentional Change in an Unpredictable World* (Cambridge: The MIT Press, 2012).

[10] H. Hasselbladh and K. Ydén, "Why Military Organizations Are Cautious about Learning?" *Armed Forces & Society* 46, no. 3 (2019): pp. 475-494.

[11] C. Paparone, R. Anderson and R. McDaniel Jr., "Where Military Professionalism Meets Complexity Science," *Armed Forces & Society* 34, no. 3 (2008): pp. 433-449; S. L. Pettit and D. M. Toczek, "Like Hugging Grandma;" B. Zweibelson, "An Awkward Tango: Pairing Traditional Military Planning to Design and Why it Currently Fails to Work," *Journal of Military and Strategic Studies* 16, no. 1 (2015): pp. 11-41.

adopted.[12] Although there might be similarities between one complex problem and previous ones, they are always essentially unique, involving unique stakeholders with unique interests and concerns. This means that for every task or challenge or problem, a new network of participants and perspectives must be set up to explore problem framings and possible solutions. The holistic and systemic understanding of complex problems also means that a problem is never considered as composed of distinct elements that can be handled by distinct entities or actions. In design approaches, complex problems are continuously explored as intertwined and constantly evolving.[13]

Contrary to this design approach, classical military operations planning follows a linear – and by and large continuously *convergent* – process[14] aimed at pinpointing problem elements, end-states, and the means to get there. NATO planning doctrine[15] describes how the problem and its elements should first be described and analysed to provide an initial situational awareness and to make grounds for strategic assessments. Based on the commander's intent, which lays out the desired end-state and purpose of the operation along with its overall conditions and limitations, sub-commanders and planning personnel then develop plans in increasing detail.

These problem/solution paradigms have important implications for notions of leadership. Defence forces have traditionally relied on a leadership paradigm that is characterised by a focus on the individual leader (the commander) as key decision-maker.[16] In design thinking, leadership is comprehended differently: as a collective,

[12] Paparone et al. "Where Military Professionalism."
[13] K. Dorst, "Design problems and design paradoxes." *Design Issues* 22, no. 3 (2006): pp. 4-17; K. Dorst and N. Cross, "Creativity in the Design Process: Co-Evolution of Problem-Solution," *Design Studies* 22, no. 5 (2001): pp. 425-437; R. J. Boland and F. Collopy, "Design Matters for Management," in *Managing as Design,* eds. R. J. Boland and F. Collopy (Stanford: Stanford University Press, 2004): pp. 3-18.
[14] B. Zweibelson, "An awkward tango;" M. Lauder, "Systemic Operational Design."
[15] NATO, *NATO Comprehensive Operations Planning Directive* (Brussels: NATO, 2013); NATO, *AJP-5 Allied Joint Doctrine for the Planning of Operations*. Edition A, Version 2 (NATO Standardization Office, 2019).
[16] K. Grint, "Problems, Problems, Problems: The Social Construction of Leadership'," *Human Relations* 58, no. 11 (2005): pp. 1467-1494; A. King, *Command. The Twenty-First-Century General* (Cambridge, UK: Cambridge University Press, 2019).

coordinated, and emergent endeavour.[17] Consequently, design emphasises a different set of leadership values and competencies; rather than a decision-maker, the leader role is emphasised as that of an open-minded enabler. Instead of giving the right answers, the leader should ask relevant questions and encourage all stakeholders to participate actively in the quest for a solution; and rather than "setting things straight," the leader must have a high tolerance for ambiguity.[18] This means that when leaders begin to invoke design approaches in military contexts, they break with traditional military problem-solving, and they will be positioning themselves differently than usual. This has both organisational and personal implications, which the article will get into later. It first presents the research methods and material and then briefly outlines how design can be understood as working in practice by suggesting the concept of a 'design gaze'.

Methods and Material

The study focused on Danish Defence officers who undertook a course on design thinking in a military context in one of two iterations (August–December 2018 or August–December 2019). The course is part of the Master of Military Studies program at the Royal Danish Defence College. The author of the article also taught this course. As a central part of the coursework, participants were working on a private case that had a real and current bearing on their present work. The case could be a task at work, a problem, or a desired end-state and was required to include multiple stakeholders. Cases, for instance, concerned issues related to human resource management such as recruitment, retention, and filling of positions; development of new concepts and programs such as host nation support or educational programs; development of organisational frameworks and military units; and development of strategies, doctrines, and military operational planning procedures. Participants worked on their case throughout the course, relating it to theory and practice on an ongoing basis. A part of

[17] C. Bason, *Leading Public Design. How Managers Engage with Design to Transform Public Governance* (Copenhagen: Doctoral School of Organisation and Management Studies, 2017).
[18] L. Hassi and M. Laakso, "Design Thinking in the Management Discourse: Defining the Elements of the Concept," *18th International Product Development Management Conference, Innovate Through Design* (June 5-7, 2011, Delft, the Netherlands); R. J. Boland and F. Collopy, "Design Matters for Management."

this coursework was the request that participants conduct micro-interventions, interviews, and experiments in their working life throughout the duration of the course. These micro-interventions were documented by the participants in various ways that they found suitable, such as drawing, modeling, audio recording, or taking notes. These notes and items were gathered in a personal portfolio that served as a tool for continuous reflection and development of thoughts as well as for documentation and presentation purposes.

The research study followed six participants and their cases through observation, dialogues, and at least one semi-structured, open-ended interview conducted with each participant. The interviews lasted between 50 and 90 minutes and were supported by observations and dialogues with participants during the course. All interviews were recorded. The research study further included access to a variety of items such as personal notes, models, and drawings from the participants. In this way, the cases and participants' reflections unfolded amid actual work-life situations as the researcher followed them. The interview guide was organised around two interwoven themes:

A) The individual case and its development with a focus on how elements from design thinking were selected, translated, and enacted; and the impacts of design theory and methods on how participants perceive their case, relevant stakeholders, and ways of dealing with the situation.

B) How the participants more broadly considered design to be useful in a military context as well as what they experienced as challenges in relation to translating concepts and methodologies of design thinking into their own practice.

The analysis utilised was oriented towards the themes and attentions that respondents emphasised[19]. The research project was interested in investigating and understanding themes and experiences from the perspectives of the participants. In this, the researcher was also attentive to the specific (military) contexts in which the individual narratives were embedded; contexts which contributed to shaping these narratives. In the gathering of empirical material as well as in the analysis, the researcher was specifically

[19] C. Riessman, *Narrative Methods for the Human Sciences* (California, USA: Sage, 2008).

interested in reflections, stories, examples, and sensitivities in relation to questions such as:

- Which elements of design thinking do these officers invoke?
- How are concepts and tools of design thinking made sense of and translated into practice?
- Which micro-processes and perspectives concerning interaction, communication, and relational work are useful; and which are conflicting or difficult to apply in a military context?
- What modes of behaviour — including micro-processes — are conducive or unconducive to employing design thinking as a practice in a military context?

In the reviewing of the research material, the researcher noted similarities and differences between themes as well as relating to how the participants brought up and considered the themes. In so doing, she found recurrent patterns and common themes with individual particularities. The findings of the research project were thus generated by looking both at and across the singular cases, seeking to identify common thematic denominators as well as individual differences and nuances in the events, reflections, and experiences that were narrated by the participants (hereafter also termed "respondents"). The respondents have been anonymised, and repetitions and empty words are omitted from the quotations; otherwise, they are (translated and) presented as narrated in the dialogues and interviews. In order for the reader to be able to follow the narratives of individual respondents, each respondent has been provided with an alias name in the text.

The Design Gaze

Based on observations from the research study, the article suggests viewing the design approach as a specific lens through which military officers and other military practitioners can view and comprehend complex problems. By participating in the specialised design course, the officers involved in the research study encountered a new perspective on their military organisation, its' ordering of problems, and possible ways

to deal with these problems. The research data suggests that when officers apply a design perspective to practical problems, a specific yet highly contextual *gaze* is at work. This design gaze enables specific understandings, justifications, and actions; it meets specific barriers, and it experiences various resistant responses.

The notion of a gaze that this article develops is inspired by Foucault[20] and Urry,[21] both of whom were concerned with how specific orderings of knowledge and perceptions of the world are embodied and enacted by institutions, discourse, and individual persons. For instance, Foucault analysed the clinical ordering of knowledge, noting that doctors tend to assume a specific medical *regard* – a medical gaze – when considering their patients. Inherent in this gaze is the division between the individual patient's *body* and their *identity*. This division enabled the human body to become a subject of knowledge of its own, hereby becoming a field where discourses and power interests could play off.[22] In a similar vein, Urry analysed how *the tourist gaze* – a set of expectations that tourists place on local populations and environments – orders the relationship and the experience tourists have with the "other" and the "out-of-the-ordinary."[23]

Both Foucault and Urry demonstrated how, in this sense, the gaze is performative: it does something; it creates something; it makes a difference. The gaze pre-frames what we see and thereby orders our actions. This is also the case with the suggested concept of a *design gaze:* the notion of design not only relates to specific approaches or methods, but relates more fundamentally to ways of ordering, relating, communicating, and valorising. The design gaze as suggested in this article emphasises notions such as systems thinking, holistic perspectivism, diversity, integration, and empathy. It prompts methodologies such as framing and re-framing, ideation, and experimentation. The design gaze denotes the specific ways of seeing and relating that filters the attentions and perceptions of the military officers who engage in design thinking, based on the above mentioned notions and methodologies. We might look at it as if there is a kind of ongoing dialogue between the design gaze and the military

[20] M. Foucault, *The Birth of the Clinic* (New York: Pantheon Books, 1973); M. Foucault, *The Order of Things* (London and New York: Routledge, 2002 (1966)).
[21] J. Urry, *The Tourist Gaze: Leisure and Travel in Contemporary Societies* (London: Sage, 1990).
[22] M. Foucault, "The Birth of the Clinic."
[23] J. Urry, "The Tourist Gaze," pp. 1-3.

officer: the design gaze offers certain propositions, and these propositions are selected and filtered through the practical knowledge of the military officer, translated into a practical experienced reality. When these officers apply design theories and practices (when they apply the design gaze *in* their professional practice *as* their professional practice), it is thus an ongoing, emergent agency that highlights and prompts specific actions. This in turn stimulates and invites a variety of responses; responses which subsequently must be taken into account and integrated into further practice or engaged within further dialogues with other persons.

This article will look into some of these practices and responses as experienced by course participants.

Findings: Organisational Implications

The following findings concern three organisational implications of the design approach that arose from the research material. First, through its focus on user needs and participatory methodologies, design may render otherwise *invisible* problems visible. The second is that since Danish Defence (as per military practice and similar to many classical bureaucracies) allocates most problems and tasks to specific sections or entities, certain problems can end up falling between sections or not *belonging* to any section, rendering them potentially unnoticed and *homeless*. The design approach may help to identify and address such problems. The third implication is closely related to the second: that dealing design-wise with a problem may enable or call for broader (and often unexpected) sections of the organisation to become involved in planning and solutions. This would flow from the fact that design approaches contend that a problem does not *belong* to one single person or function and hence cannot be solved in isolation. It becomes an issue of *transversality*."

Invisible Problems

Almost all of the respondents mentioned how their mindset and perspective had changed after their encounter with ideas and approaches from design. It seemed that the design perspective was now active and present in their minds. We might say that

they started to project a design gaze onto tasks and problems that they encountered in their work-life. The respondents provided numerous examples of how this gaze ordered their relationship with problem complexes, stakeholders, and processes, and how it prompted them to approach tasks differently. Several respondents noted how the use of a design gaze in their work tasks made them aware of, and sometimes more apt to engage with, problems that from the outset were not visible as problems. One respondent, whose case involves integrating design thinking into operations planning procedures, noted that:

> Before I started this design course, my problem paradigm might have been non-existent. I could have chosen to say that it didn't exist… (Martin)

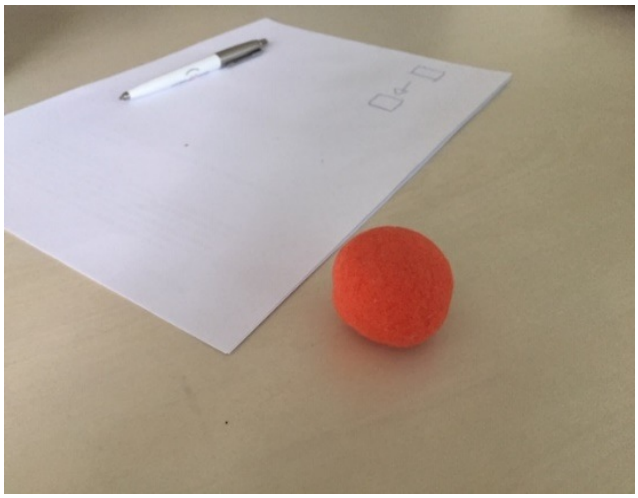
The sudden visibility of otherwise unnoticed problems was for one thing related to the enlargement of perspective brought by the design approach and its attention to participatory processes aimed at seeking to include the perspectives of all stakeholders. It was noted that such multi-perspectivism might otherwise be particularly challenged in military organisations due to short timeframes, clear thematic organisational sectioning, and hierarchical structures. One participant recalled how the design focus on relations and participatory approaches had prompted him to drive up to a subordinate counterpart and engage in a dialogue to understand better his counterpart's concerns and perspectives rather than making the plans and decisions on his own and simply issuing orders, as he previously would have done:

> I noted that the caseworker who was in [xx] had never tried this before. And we often seemed to be talking past each other. So, I drove up to him, and we talked about it all morning over coffee to soften matters up. In such cases, I think you can use some of these devices a little more actively and ask: "What do you…?" Instead of me fronting up and saying "I demand… You must support me, and you should do it like this, and by the way it's over here…" To a much larger extent, I could have used those things from design and said, "We have this task, how do you think we should proceed? What are your concerns?" (Shane)

Another respondent showed a small orange squeeze ball that he had made while attending the first course and had carried in his pocket since to "remind myself to see other perspectives and to embrace conflicts and see what I can learn from them. Because

inherent in the conflict, there's probably a different way of viewing the world" (Jasper; cf. fig. 1).

Figure 1: Orange squeeze ball



From the research study, it would appear as though one way of invisibilising problems in the military organisation is through the organisational empowering of some voices and the silencing of others by means of rank, position, and organisational divisions. Respondents in the research noted how when they started to include and empower other and often *unusual* voices, they also became aware of previously unnoticed or unacknowledged problems.

Respondents also described another way in which problems seem to be rendered invisible in military organisations: they noted – and it was equally visible in their narratives and cases – that existing procedures, solutions, and ways of doing things often seem to be taken for granted as optimal. As one respondent noted, most existing solutions: "rest on the assumption that what we have is the best – or at least really good." (John)

The reading of the situation might be developed with an analogy here. Within gender studies, it has been common to employ the notion of *neutral default*. Studies of

consumer products, social policies, and media images have pointed to how "male" often appears to be the default or neutral category, while "female" is a notable, marked, non-default one.[24] The respondents experienced that Danish Defence has developed modes of cultural default: ways of perceiving, ordering, and handling problems which sometimes foster a tacit notion of existing solutions as the *neutral default*. A central feature of the neutral default is that it renders its own bias invisible. The origins and traceability of the neutral default go unrecognised. Instead, it installs itself as a taken-for-granted reality. Likewise, several of the respondents noted how the neutral default that they sometimes experienced includes a tacit assumption that existing solutions constitute an optimal baseline that nobody ever thinks to question:

> Returning to the mindset, Defence personnel are often a little like, "Well, somebody already thought about this, and it's awesome. And everybody is totally in control… Somebody made a good plan for this, so we don't have to deal with the matter." But that's wrong. (Jasper)

Respondents noted that when problems are not visible as such, or when they are deemed *resolved* by established, tacitly accepted means, it can be difficult to insist that they matter and that they should be reconsidered. This is particularly the case in an organisation whose members are already fully occupied with tasks that are visible and often urgent. For instance, John told us about his experience when he wanted to explore altering the existing procedure for assigning new officers to navy posts. To do so, John had to convince Paul, a superior officer, about the relevance of change. When John first mentioned his thoughts on the topic to Paul, the exchange unfolded as follows:

> Paul: *What do you want to talk with me about?*
>
> John: *I'd like to talk about the assignment of new officers to the posts…*
>
> Paul: *Well, there's already a plan for that.*

Although this episode is concise (to the point of being terse), we would do well to examine what Paul's response *produces*. We ought to scrutinise the performativities embedded in the episode and consider what they can tell us about the culture and opportunities for action in Danish Defence. In this case, we need to ask which taken-for-

[24] C. C. Perez, *Invisible Women: Exposing Data Bias in a World Designed for Men* (Chatto & Windus, 2019).

granted assumptions and tacit norms and rules Paul's response simultaneously leans upon and reinforces. Although John later noted that he had anticipated this kind of response, he expressed emotions of demotivation in hindsight and said that he considered abandoning the idea of trying to alter anything (despite being in a unique position to recognise the problems relating to existing manning procedures). To fully grasp the performative power of Paul's response – the situational and relational positioning that takes place – we must appreciate the profoundly contextual character of the episode. We need to understand the pivotal role that hierarchy and positions play in the military; we must know that career advancement in Danish Defence relies partly on performance appraisals conducted by superiors; and we must perhaps also appreciate the meanings, roles, and values associated with position (and in some instances age and gender); we must understand the workload and time pressure under which many officers are working and, hence, the perceived need to deal only with urgent matters; we must understand the overarching organisational emphasising of zero defects; and we must understand the organisational dedication to plans, procedures, and doctrine. Most of all, however, we must be cognisant of how the above exchange is not merely *one* incident relating exclusively to two particular actors and their specific context. The episode above is but one example of many organisational encounters characterised by such communicative indications and actions. In each instance, these communicative actions may seem small and even insignificant; it may be difficult to fully comprehend the power exerted by them, because the audible or visible part – the actual exchange of words – is so incidental, while the organisational framework for sense-making (the contextual, normative foundation in which the words and gestures are embedded and interpreted) remains tacit. When we appreciate that the above dialogue is merely one of many such dialogues, we begin to grasp the pervasiveness of it as a general attitude, a general organisational response to the propositions of the design gaze. In the long run, such communicative actions hamper – or possibly even silence – the design voice.

Homeless Problems

The situations and examples shared by the respondents may lead us to consider questions pertaining to agenda-setting and agenda-solving, such as: Who determines

the issues that remain open to discussion? Who determines *when* a problem is a problem? Who determines *who* should handle a problem (and *how*)? The answers to such questions largely rely on the distinct organisational setting in which they are addressed. Like many other military institutions, Danish Defence is compartmentalised into specialised commands, departments, sections, and units. Moreover, there is a designation – a scheme, a model, a procedure – for many tasks and problems. While this classical bureaucratic organisation responds well to many problems and their need to be dealt with in a swift and systematic manner, the respondents also noted some of its drawbacks in relation to applying design approaches to complex problems. The officers noted that some of the problems rendered visible by the design gaze appeared "homeless:" either because they fell between two stools so that nobody – no officer, no section, no department – *owned* them, or because they were transversal but none of the involved stakeholders felt that their area of intersection translated into a responsibility to act:

> In reality, my head of unit tells me that I'm not allowed to spend much time on this, because it isn't our job. "That's [xx]'s job." So, I'm told that I shouldn't concentrate on this, because it's not our problem. (John)

Several respondents noted how the design approach thus counters prevailing ways of perceiving and dealing with problems within the armed forces. John further noted that, "You're up against schooling and culture. We're educated in the classic problem-solving approach. We're really good at it, so that's the perspective we automatically take." John also said that in his everyday work settings, he sometimes felt awkward when posing questions prompted by design thinking, such as "How could it be different?" and he gave examples of colleagues having been reluctant (or even hostile) to his suggestions to make use of design methods in various everyday work settings.

Other respondents had different experiences with using design approaches. One explained:

> If it makes sense, I think it's fairly easy, actually. It would, of course, be easiest with your close colleagues – where trust is established. (Rather than suddenly presenting a look-what-I-thought-about moment to some major from [xx]. He might be a little surprised.) But I think that where I am now: If it makes sense, then people will use it. (Shane)

We might relate the challenges and considerations mentioned by the respondents here to issues of transfer[25] or *translation*.[26] To some officers, it appeared difficult to transfer and translate the design gaze (and the possibilities inherent in this gaze) into a military vocabulary based on factual analysis, on the pinpointing of problem solutions, and on decision-making. As Shane notes above, mutual trust and personal resolve are required to engage design thinking in an organisational structure and culture oriented towards deductive and goal-oriented principles and ways of acting. Officers often work with colleagues who view this approach as foreign and do not value it.

In this way, military officers who employ the design gaze also come to assume a role as translators within their own organisation. This understanding of course participants as 'translators' can be related to Wrigley's notion of the *design innovation catalyst*[27]. Drawing on data from research work in business organisations, Wrigley describes design innovation catalysts as people who have extensive knowledge both of the business organisation in question and of design. Thereby they are able to take the role of "transitional developers," translating "between the abstractions of research and the realities of practice."[28] In a similar vein, the author of this article noted that participants in the design course in some ways came to function as transitional developers within the defence organisation - depending on the extent to which they chose to use and bring design knowledge and methodologies into play in their everyday work. Whether and to what extent their endeavour resulted in actual and lasting innovation catalysis within the Danish Defence still remains to be explored. Yet, as we can see in the different experiences of the officers noted above, this *translator* role seemed easier for some officers than for others. Similarly, the specific organisational contexts in which officers were embedded mattered – experienced as open by some, but elsewhere felt to be substantially closed regarding the design gaze.

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[25] S. Gherardi and D. Nicolini, "To Transfer Is to Transform: The Circulation of Safety Knowledge," *Organization* 7, no. 2 (2000): pp. 329-348.

[26] C. Wrigley, "Design innovation catalysts: Education and impact;" *She Ji: The Journal of Design, Economics, and Innovation*, no. 2 (2) (2016): pp. 148-165. See also M. Callon, "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Brieuc Bay," *The Sociological Review* 32, no. 1 (1984): pp. 196-233.

[27] C. Wrigley, "Design innovation catalysts: Education and impact," pp. 149-152.

[28] Ibid., p. 149.

Transversal Problems

In contrast to military structures (loyal to sections and conscious of rank), design typically invokes holistic and participatory approaches that seek an equal inclusion of *multiple* stakeholders when dealing with complex problems. The research provided several examples of how problems that were approached in a design way produced unexpected, unplanned, and sometimes unbidden participants and entities. Several respondents mentioned that the design approach had made them aware that if they did not seek to identify and engage all stakeholders in the problem-exploration process, and if they did not delve into these stakeholders' concerns, they would not appreciate the full spectrum of challenges, to the detriment of the solution. Shane, whose case has been traced previously, noted this concerning his visit to a subordinate counterpart:

> I knew exactly how I wanted it to be, but he didn't play it the way I wanted (…) and I didn't understand why. But it turned out to be extremely important because a design-oriented leader might use this to see that (…) if he has these important challenges, and if we don't uncover them, then we will proceed with a fairly mediocre plan, really. I was endlessly annoyed by it; but even though he might have carried out the task, it would have remained an annoyance for him, and we probably would have been forced to reckon with it later on. (Shane)

Another conflicting organisational interest mentioned by several respondents was the observation that the needs and desires of those who would be considered primary or "end-users"[29] in a design perspective may not always match the needs and desires of those in charge of *handling* the problem. At other times, user needs and desires may seemingly be at odds with other organisational concerns. Examples arising in the research included divergent aims harboured by those who draw up the user specification and those who create the requirements specification; another example related to the manning of navy vessels, where a majority of cadets might one year wish for a placement in the North Sea while the primary need for personnel might be on a mission in the Gulf. It was also noted that the needs and desires of primary users are diverse; or that the very decision to deem a problem necessary to be dealt with might often be at odds with the time pressure within the organisation.

[29] C. Bason, *Leading Public Design*.

This multiversity of needs and desires may be viewed in relation to the fact that Danish Defence – like most contemporary defence forces – is a massive organisation that fosters many different perspectives, tasks, needs, and priorities. Lawrence and Lorsch [30] and Mintzberg [31] have pointed out how when there is a significant differentiation *within* an organisation, integrative and coordinating measures and incentives are needed to ensure transversal integration; otherwise, the overall alignment of interests and strategic goals at all levels may be at risk.[32] If the alignment of interests does not take place continuously, the solutions created might not be in the best interests of the organisation or its members; rather, such solutions might only be satisfactory to a select few whose interests were made to count.

The decision of whose interests are made to count within organisations may take place in a variety of ways. Danish Defence rests on a hierarchical set of values and power distribution, where military leaders largely resolve questions and dilemmas of realities-made-to-count by command: they may decide and give orders about how to deal with a specific problem rather than taking the time to listen to a plethora of voices. One of the respondents noted how the participatory and egalitarian approach of design might be particularly challenged in the military system due to the general expectation that superiors decide and command. To engage with design, he noted, you must change the initial default perspective from that of deciding and commanding to that of inquiring and listening. There might later still be a need for the decision-making approach.

What emerges clearly in the examples above is that employing a design gaze might at times feel inconvenient for military officers. The design gaze foregrounded problems that had been *handled* and thereby muted; it drew attention to problems that had fallen into structural crevices in the military organisation, or to problems that had been solved single-handedly by one section or one person within the organisation without including the stakeholders who would eventually have to implement or make use of the solution. Such experiences point to a need for structural recognition:

[30] P. Lawrence and J. Lorsch, "Differentiation and Integration in Complex Organizations," *Administrative Science Quarterly* 12 (1967): pp. 1-47.
[31] H. Mintzberg, *Managing* (California, USA: Berrett-Koehler Publishers, 2009).
[32] Ibid., p. 199.

organisations that want their members to engage a design gaze need a structural and capacity-related flexibility to support these members in bringing up unrecognised problems when they identify them. Without such recognition, invisible or homeless problems will loom as ghosts and obstruct the work of the organisation because they are never allowed to become flesh and blood and be taken seriously. In this way, design thinking may address the organisation as well as the organising. When a military organisation is structured (and thinks) in sections and entities – each handling its issues – the organisational ability to design is hampered.

Conclusion

The analyses and discussions in this article can be structured into two sets of conclusions. The first set emerges from the concept of a design gaze that was suggested and applied as a conceptual way of framing the understanding of how design directly contributes to co-constructing realities when applied by military officers in relation to the complex problems and tasks they meet in their work-life. This concept and the corresponding analysis provide a deeper understanding of the challenges experienced in practice by military officers when introducing and working with a new theoretical and methodological paradigm in an organisation whose structures, norms, and values still frequently lean on a radically different paradigm. It is well-documented that design thinking has increasingly inspired and informed military theory, doctrine, and curricula in recent years. The present study stands on the shoulders of this endeavour. Yet it begins to scrutinise an area that is still relatively unexplored. It seeks to illuminate and emphasise the many ways in which the propositions of design as a mindset and set of practices are met, enacted, engaged, experienced, challenged, and at times rejected in everyday work situations in the military organisation. The study revealed how the design gaze not only configures problems and stakeholders differently; it also provides the officers with new perspectives and new modes of positioning themselves and the other. They are thereby furnished with new possibilities for action. It seemed as though once the design gaze was installed as a potential resource, it remained a permanent option that allowed them to switch perspective and dig into a toolbox with different tools for leadership and participation. It was also noted that the design gaze is flexible – it not only meshes with broad, encompassing processes but can also be used on a

smaller scale as a gaze that proposes and instigates a number of distinct attentions, perspectives, and methods. Using this gaze opens a path to possible actions that are not necessarily useful in all contexts or in relation to all types of problems; but it enables those officers who are familiar with the gaze to decide when and how design approaches can make sense in a military context.

The second set of conclusions relates to the specifics of the dilemmas faced by the research study respondents. At an institutional level, three types of problems or challenges that the design gaze might foreground were identified. These were termed *invisible*, *homeless*, and *transversal* challenges. It was also noted that the design gaze may be challenging in relation to time and that it has personal implications for officers who engage the gaze. The article discussed some of the ways a design gaze may offer alternative perspectives on problems and tasks as well as in relation to understanding the nature of complex challenges. This change of perspective can be both a source of relief and a recipe for trouble. In various ways, the propositions of design may contradict traditional military procedures for analysing and solving problems. Design may also challenge the classical military organisation and hierarchy of command. Hence, military officers engaging with design propositions must adopt the *translator* role within their organisation. This role apparently comes easier to some officers than others, just as their organisational basis and their colleagues may vary in their openness toward including or engaging with the design gaze. From the experiences of the military officers who took part in the study, it may be affirmed that leadership and resilience are required to persistently engage design in the military system.

This finding may prompt us to consider what are good ways of introducing design into defence forces? In the design course that provided the empirical basis for the research project underpinning this article, participants were learning about design while being *away* from their individual everyday organisational setting and context. Hence, each participant had to find ways to introduce and translate design propositions, values, and methodologies into his or her specific working context. A different approach could be to establish design courses for participants from one same unit or one same section in order to provide them with a common design language and a common conceptual toolbox - a common design gaze. This might serve to reduce some of the organisational barriers to introducing design and make the further practical

transfer of design methodologies and propositions less of an individual endeavour and more of an organisational undertaking.

As another topic for further research, it is also worth pondering modes of institutional resistance. Who might volunteer to deliver propositions that no one wants to acknowledge? How should one approach such as role? How will a new perspective be welcomed and included if leaders who have the authority to appraise and promote do not endorse it? Moreover, how should military organisations that want to engage with design thinking do so?

Finally, we must consider the reach and ramifications of the research findings. Since this article selects, presents, and analyses material from one in-depth qualitative, empirical study, the findings primarily serve as indicators and inspiration for future research and exploration. We must also recall that contemporary military institutions consist of a vast number of functions and tasks. Military engagements and actions *on the ground, in the air, and at sea* are only parts of the modern military machine. Overall, the respondents' cases related to areas of operational planning, human resource management, and organisational development. While the respondents all considered the design gaze an important form of agency in their working field, questions may be raised about the relevance and enactability of design in relation to other areas and levels of military work.