

Organizational Justice During Deployment: What Shapes Soldiers' Justice Perceptions?

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ABSTRACT

The literature on military deployments has to a large extent focused on mental health outcomes, and their relation to the high-risk aspects of the work environment, e.g., combat. However, findings also suggest that the soldier's perception of more common work and organizational factors may be related with negative mental health outcomes [1,2]. Such common work and organizational factors may also influence other aspects of work and private life, such as stress, well-being and lost productivity [3], and these negative influences may, in turn, affect the military organization's ability to function.

Organizational Justice (OJ) is one such factor. OJ overall refers to feeling rewarded to a fair extent (distributive justice; DJ), through fair procedures (procedural justice; PJ) that are enacted fairly by the leadership (interactional justice; IJ) [4]. In a recent study on Danish Veterans deployed to the Helmand province in Afghanistan in 2009, Elrond and colleagues showed that negative perceptions of PJ and IJ in relation to the immediate superior, as measured before and during deployment to the Helmand province in 2009, was related to an increased risk of having PTSD 2½-3 years after homecoming for soldiers without own leadership responsibilities [5].

Understanding how perceptions of OJ develop in relation to Military deployments may provide the opportunity to adjust certain aspects of the leadership, which may have an impact on perceptions. However, little is known about individual, work or organizational factors that affect such perception. It is, therefore, the aim of this study to facilitate an understanding of how OJ is shaped in the Danish defence during deployment, which in turn may provide the foundation for changes in how leadership is performed.

This paper will present the theoretical background, methods and expected analyses, of a study being conducted by the Danish Veterans Centre throughout 2019-2020, on Danish soldiers deploying to international operations.

1.0 BACKGROUND

The current project on OJ in relations to military deployments has been started by the Research and Knowledge Centre, The Danish Veterans Centre. Largely based on previous results showing that there was a relation between OJ and post-deployment PTSD in Danish soldiers who deployed to Afghanistan in 2009 [5], the overall aim of this study is to make this knowledge and possible interventions available to the Danish forces. The present deployment environments, however, is not related to the same levels of risk and threats to health and safety as the previously researched deployment (Helmand province of Afghanistan). Therefore, it is not expected that the present environments will result in the same amount of mental health problems as found amongst soldiers deployed with ISAF 7 in 2009. The present study will thus mainly focus on identifying how perceptions of OJ are shaped in relations to deployment. This knowledge can then be used to make perceptions of OJ an actual changeable factor, through the incorporation of the knowledge in the Danish defence. Translation of any positive findings of this project, into actions is planned to be done in

close collaboration with the schools of the Danish Defense and the Defense organizations.

The project will overall take an explorative approach to understand how perceptions of justice are shaped in the Danish defence. Given the explorative nature, the methods for obtaining such knowledge will build upon both quantitative and on qualitative methodology. This dual approach has been chosen in order for the project to be able to explore and tests relations through the quantitative methods using questionnaires, while concurrently allowing for information on themes such as how justice perceptions are formed and how to intervene in such formation, through the use of interviews. Data will be obtained from a sample of two deployments of Danish soldiers ($n \approx 360$), through measurements before and during for one deployment, and during and after for the second deployment.

2.0 WORK ENVIRONMENT DURING MILITARY DEPLOYMENT

Soldiers deploying into conflict zones are confronted with a work environment that differs from non-deployed conditions. Overall, we may thus distinguish between factors that are unusual and related with hi-risks aspects of military deployments and common work environmental factors which military deployments have in common with most other types of work [1,2,6–9]. Results suggest that beyond the high-risk factors, factors that are generally considered a part of the common work environment during deployment may also relate to increased risks of developing post-deployment mental health problems [1,2,10]. Specifically, previous studies have found that perceptions of fair treatment in relations to superiors in military organizations, is related to the risk of developing mental health problems [5,11–14].

Conducting changes in the work environment may thus provide an avenue for aiding soldiers to cope with military deployments [6]. Contrary to changes in the hi-risk aspects of the work environment, changes in aspects of the ordinary work environment may be more easily within reach, both before, during and after deployment. Such changes, however, needs to be guided by theoretically and practically sound propositions. Leaning on existing theoretical frameworks to understanding the how aspects of the work environment during deployment, may thus provide the background to easier understanding and change those specific non-traumatic aspects of the work environment, that does affect soldiers throughout the deployment cycle.

2.1 Organizational Justice

OJ overall refers to the fairness of organizations in relation to their employees. The concept of OJ has however developed throughout several decades and has resulted in a multitude of understandings of what comprises perceptions of OJ, and how such perceptions are shaped. Overall, however, OJ is considered to be based on the subcomponents relating to fairness in relation to distributions of pay and recognition (DJ), the procedures on which the distributions are based (PJ) and the interactions that the procedures are enacted through (IJ), while IJ itself is often considered to be based on the subcomponents of informational and Interpersonal justice [4,15,16].

2.1.1 OJ, health and wellbeing

Aspects of OJ has previously been found to relate to factors such as wellbeing, mental health problems and lost work days, within non-military settings [3,17]. Within military settings, OJ has further been related to PTSD [5] while the relationship with depression may be opposite, i.e. mental health problems changing the perception of OJ [18]. A recent Danish study on soldiers ($n = 243$) deployed to combat operations in Afghanistan in 2009, found that better perceptions of PJ and IJ in relation to their immediate superior as measured before and during, but not after deployment, were related with at lowered risk of having PTSD at a diagnostic interview (Structural Clinical Interview for the DSM-4) 2½ years after homecoming [5].

2.1.1.1 *Risk and uncertainties*

Such relations between OJ and mental health outcomes may be understood through the theories and findings in relation to OJ. One such perspective is the “Alarm system perspective”. Building upon the discoveries that perceptions of organizational justice perceptions are being used for uncertainty management, the alarm system perspective suggests that in lack of information about risks in a situation, subordinates will use available information to cope with the risks and thus handle the situation. Such a substitution of information is thought to be used to reduce insecurity in alarming situations [19,20]. The alarm system perspective further suggests that the effects of fairness may be the highest when fair procedures are the most useful. Support for this notion comes amongst others from an experimental study on cues of death, that found that reminders of one's own possibility of dying would make an unrelated justice judgement more important [21].

Given the uncertainties and risks of the military deployments into conflict zones, cues of fair treatment may thus be used as a substitution to handle the insecure environment. Further, perceptions of justice may be the most protective before and during deployment, where injustice could signal a higher risk potential for the soldier. This notion may be supported by the findings of Elrond et. al [5], that relations between OJ and PTSD were present for measures of justice before and during the deployment, but not immediately after deployment. This could suggest that any protective effect of better perceptions of fairness was present when the risks of uncertain events were most probable.

2.1.2 **OJ and organizational behaviours**

Beyond the relation with mental health and wellbeing, perceptions of OJ may, however, also relate to factors that are of importance for the organization as a whole. In military settings OJ has previously been related to self-sacrificial behaviour [22], organizational citizen behaviour [23] and sexual harassment [24]. The latter study found that better perceptions of overall OJ (ignoring the OJ subcomponents), predicted lower levels of sexual harassment. Overall OJ moderated the effects of how the two predictors of gender-similarity in the workgroup and sexual harassment climate perceptions, related to sexual harassments. Findings thus showed that the effects of these predictors were stronger when the perceptions of overall OJ was low [24].

Changing perceptions of OJ in relation to the military deployment may thus also have positive effects on the functioning of the organization.

2.2 **Affecting perceptions of OJ in relations to military deployment**

In order to intervene with such possible negative consequences in relations to military deployment, factors that are related to the formation of OJ perceptions in the military settings must be identified. This may be done by focusing both on internal and external factors for the formation of deployed soldier's perceptions. This may allow for crafting an understanding of both the (external) factors that Defence organizations may change and (internal) factors that may be used to screen soldiers both systematically and day to day by superiors.

The following is an overview of factors that have previously been identified as shaping perceptions of justice in common work settings. These will guide the search for factors in the military settings that are identified through quantitative and qualitative methodology.

2.2.1 **Factors in the formation of justice perceptions (Quantitative perspective)**

Depressive symptoms have previously been found to exert influence on the subsequent development of OJ perception, in military settings [18], and is thus an aspect of interest. Based on the likelihood of soldiers having elevated levels of PTSD symptoms from previous deployments, PTSD symptoms may also be of interest as predictors of justice perceptions. Given the possibility of sleep deprivation during military

deployment, and a possible relation between sleep and affect [25] and affect and OJ [26] sleep is further a possible modifiable factor of interest. Finally, aspects of the work environment during deployment may be explored as factors in the development and perception of OJ during military deployment [27].

Several psychological factors may also influence how OJ is perceived. State positive and negative affect, along with aspects of personality has been suggested to influence the perceptions of OJ [26]. Further, attachment styles have been found to relate to both development of PTSD [28] and to be an antecedent the development of organizational behaviours [29] and has thus been suggested as a factor that could confound the relationship between OJ and PTSD [5]. Finally, recent research has suggested that there may be intra-individual differences in the propensity of perceiving overall justice as fair [30].

1.1.1.1 Individual and group-level perceptions

Evidence suggests that, beyond the relation between individual-level justice perceptions, there is a relation with group level perceptions and mental health outcomes [31,32]. However, it is uncertain whether such a relation between group level effects and mental health outcome is of a direct or of a moderating nature [32]. The current project does not include health outcomes and therefore replication of these results is currently not possible. However, predictors of group level perceptions especially in the shared experience of the work environment during military deployment may at a more theoretical level, be of interest.

2.2.2 Formation of justice perceptions (Qualitative perspective)

Another approach may focus on how justice perceptions are formed during deployment, and on what could change negative perceptions for the better. As the formation of justice perceptions can be studied using the qualitative methodology, the understanding of the field can be expected to develop throughout an interview and interpretation process [33]. The following description of aspects of justice formation will, therefore, serve as an inspiration to the themes that such interviews will possibly include on the soldier's descriptions of formation of justice perceptions.

2.2.2.1 Justice motives

The motives for desiring fair treatment in relation to the organization that one is working for has been suggested to fall into the four overall categories of instrumental, deontic, relational and uncertainty reducing [34]. Instrumental motives relate to the desiring a proper outcome of one's involvements, while deontic motives are driven by internal needs for righteousness. Further, relational motives are those driven by the need to be treated fairly by those important to oneself. Finally, uncertainty reducing motives relates to the sense of control with situations, that may arise from knowing that situations will be handled fairly. Knowing why soldiers desire OJ during deployment, may aid future interventions.

2.2.2.2 Formation of perceptions

Fairness Heuristic Theory suggests that perceptions of justice are shaped mainly by episodic events. Such episodes will shape the perception of justice in the organization, and such understanding will be used as a stable perception until new events reshape perceptions. The Fairness Heuristic Theory further suggests that events occurring early on in the meeting with a new work-environment will have a larger proportional effect than those experienced later [19]. Understanding how, and on which events the perceptions of justice are formed during deployment, may aid interventions. Further, the development the OJ literature has resulted in a shift in focus from justice in relations to individual events to also include more *entity-related justice perceptions*, which reflect aggregated perceptions of multiple situations of justice judgements in relation to actors, such as specific leaders or the organization as a whole [35,36]. Given the perspective of the current project on the whole deployment cycle (before, during, after), the interviews may contain traces of descriptions of justice as event or entity-based. Understanding these aspects of the formation may be important for targeting future interventions at events or at more general settings. Further, studying the degree

to which perceptions of OJ appear declarative or implicit in their description may be an area of interest. *Fairness theory* further suggests that individuals, in reaction to leader actions and decisions, form alternative “counterfactual” ideas about how things could, should and would look if alternative decisions had been taken [36]. Such an understanding of the formation and content of counterfactuals may be used to understand what may aid more positive perceptions.

Building upon the fairness heuristics theory, the theory of substitution of justice posits that people use the available information of OJ as pointers of the state of fairness when they do not have available information on the perspective they need to know about [19,20,37]. Understanding how such substitution may play out in the deployed military settings can aid the understanding of why justice is important to deployed soldiers.

2.2.2.3 *Influence of social settings*

The social settings may serve as a fundamental influence on how individuals perceive and describe OJ in their organization. Both in conditions where the individual do not have specific information on the fairness of the processes and in conditions where they do [36]. Such influence may be exerted both between peers and more broadly through social networks [36]. Social information, based on anecdotal or peers' perception of justice, may thus serve as a cue for individuals as to the state of justice in the organization. However, perceptions of justice may also be shaped by the witnessing of injustice to others [38]. The reasons for this may be both related with the individual person's needs, and since fairness to everybody secures fairness to oneself. However, it may also be out of more deontic perspectives, that one's morale requires that things are ought to play out fair [38].

The current study will further focus on traces of *default negative perceptions* of justice, that may be a part of the subordinates' military culture. This may be studied both at the individual level in the form of the *negative propensity* for justice perceptions [30], and at the social level as a consequence of the social influence.

2.2.2.4 *Organizational structure*

Finally, more top-down organizational cultural aspects may shape the OJ aspects, and thus how OJ is perceived by subordinates. Specifically, it has been suggested that top-level leaders may exert influence on DJ and PJ, while supervisory leaders mainly affect IJ [34]. A review has suggested that the structure of the organization that is being studied may influence justice perceptions and formation [39]. However, the literature does not exhibit clear rules, with regards to the influence of organizational aspects, such as centralisations and exhibition of power, that may be central to the military in general and the deployed environment specifically. However, the influence of the military structure in the deployed environment on OJ perceptions may be identified through interviews.

Understanding the influence of peer perceptions and the level of the management on perceptions of OJ in relation to the military deployment may, however, aid future interventions.

2.2.3 **Intervening in OJ perceptions**

The results of the research part of the project aim to form the foundation for future interventions aiming to mitigate any negative effects of poor perceptions of OJ in the Danish defence. While any specific interventions, e.g. teachings in the schools of the Danish defence, will be developed as a part of the project, the following may serve as a short overview to some of the approaches that may be taken.

Research in and results of OJ interventions have previously been discussed, with some researcher criticizing them for being scarce [40], while others are more positive with regards to the effects of interventions [41]. The Military systems, however, generally exert great control over the organization, through control with the schooling of soldiers and leaders, and due to the exclusiveness of the military as a workplace for military leaders. This means that leaders historically have stayed in the systems for extended periods of time. Such a

system may make more fundamental cultural changes approachable. Taken as a whole, this may make changes in cultures a viable way of approaching intervening.

One method suggested to have an effect is increases in providing *explanations and justification* to situations. Explanations and justification may be used by leaders, as a social tool, to shape the perceptions of justice by subordinates [36]. This simple intervention has been suggested to have effects, even to the extent that some caution and security of ethical use may be required [42]. A 2003 meta-analysis by Shaw et al. [43] supports this and suggested that explanations indeed may be beneficial for the perceptions of DJ and PJ specifically. However, these studies have generally focused on individual procedures, and not on the entity level perceptions that is also the focus of the present study. Still, even simple approaches such as teaching leaders about the importance of fair treatment may work. In one study such intervention did show to have an effect on perceptions of justice, however only for those with poor perceptions of justice [44].

Throughout the project, these perspectives may serve as pointers to the formation of future interventions.

3.0 AIMS OF THE RESEARCH PROJECT

The overall aim of the project is to broaden the understanding of OJ in the Danish defence. This is done through creating an understanding of how OJ is shaped in the Danish defence during deployment. Given the unusual settings surrounding the deployed military environment, and the lack of knowledge in Danish settings specifically, an overall explorative approach will be taken.

This will, in turn, provide the foundation for possible changes in how leadership is performed, and for the future work with soldiers and leaders. The study will conduct analyses of predictors that may influence perceptions of justice throughout the deployment cycle. Further, the study will analyse how justice perceptions are shaped during military deployment, based on interviews. Finally, the study aims to research which factors soldiers themselves points to, as key factors that could aid them in changing their justice perceptions.

These aims are approached through the following five sub-aims:

- Securing correct measurements of OJ in the Danish Defense, through the translation and validation of a Norwegian OJ questionnaire and a 6-item PJ/IJ questionnaire previously used in the Danish defence.
- Identify factors that may influence the perceptions of OJ through questionnaires.
- External factors related to work settings.
- Individual factors such as previous deployments, positive and negative affect, and personality.
- Identify patterns in the formation of justice perceptions through an interview process.
- Identify avenues of change within the Danish defence.
- As identified through questionnaires.
- As identified through an interviewing process.
- Make suggestions for future changes in leadership training, the work environment during deployment and possibly also in selection procedures.

4.0 METHODS

4.1 Quantitative and qualitative methodology

The project will use both quantitative and qualitative methodology. However, the integration of the quantitative and qualitative approaches into mixed methods requires these perspectives to focus on the same phenomenon [33]. Given the different focus of the quantitative and the qualitative aspects of the project, integration of the two methodologies will therefore not be a part of the analytical process. In terms of the mixed method labelling of the project it can be considered *quasi-mixed* [33], as there is no direct attempting to mix results in the research phase. However, results may still complement each other, specifically for the formation of interventions.

4.2 Population and procedure

The population will consist of two deployments of soldiers going into mission throughout 2019. One deployment ($n \approx 180$) will have data sampled during and after deployment, while the other ($n \approx 180$) will have data sampled before and after. For each sampling, questionnaires will be delivered to the full populations, while a subsample of soldiers ($n \approx 4$) will be interviewed.

Before the deployments, all soldiers will receive an information letter explaining the aim and procedure of the research project. At each sampling, they will further receive another letter informing them of the project and aim together with their rights with regards to giving information.

The questionnaires during deployment are expected to be handed out and collected by psychologist throughout their contact visit, while the questionnaires before and after are delivered through an internet service. Soldiers for the interviews will be selected randomly from the deployment list and contacted directly. To account for any fallout approximately 6-8 soldiers will be selected from each round of interviews.

4.3 Data

4.3.1 Questionnaires

4.3.1.1 Measuring OJ

Research into OJ and its subcomponents have developed throughout decades, and sampling has been conducted using a range of different questionnaires [16]. However, a 2001 questionnaire validated by James Colquitt [15,16] has since become the point of reference with regards to measuring OJ. Based on this measure a Norwegian version of the measure was developed and validated in the Norwegian armed forces in 2012 [22]. The measure is created as an entity measure, aiming at the entity perceptions within the four main OJ domains. This measure will, as a part of the project, be translated into Danish.

The Danish veteran centre has further created a short 6-item scale measuring PJ and IJ, in relation to the soldiers' immediate superior. This scale was validated using graphical log-linear Rasch models, on a sample of soldiers deployed to Afghanistan in 2009 [5].

4.3.1.2 Predictors and background factors

Background factors: Age, Gender, Position will be obtained from Danish defence data, while a number of previous deployments will be sampled in the questionnaire. PTSD symptoms will be sampled using the Post-Traumatic Checklist, civilian (PCL-C) [45] while depressive symptoms are measured with the Beck

Depression Inventory [46]. The positive and negative affect will be sampled using the PANAS [47], while personality may be measured with the 60 items NEO Five-Factor Inventory [48]. Attachment style may be measured with the 12-item Experiences in Close Relationship Scale – Short Form (ECR-S) [49]. Sleep is measured using 4 items from the Karolinska Sleep Questionnaire [50]. Finally, propensity for justice perceptions (Colquitt, 2018) may be included. However, the measure currently only exists in English, and the translation of the questionnaire is not yet planned. Finally, general work environmental factors will be studied using a newly validated Danish questionnaire [51].

4.3.2 Interviews

Interviews will be conducted as semi-structured interviews. The length of each interview is expected to be around 1 hour. Interviews will be partly or fully transcribed, depending on the material in each case. After the initial development, the questions the interview guide will be discussed with military personnel from the Danish Veteran Centre to secure the relevance and clarity of the questions for the deployed environment. Further, three pilot interviews will be conducted, to test the interview guide.

5.0 ANALYSES

5.1 Quantitative analyses

The main quantitative analysis is expected to include each of the justice scales and the subscales as outcomes of the predictors. The results of the quantitative aspects of the project are expected to show which primary aspects of the soldiers' work, and of the soldiers' personality effect etc., that are related to the perceptions of OJ.

5.2 Qualitative analyses

The interviews are expected to be analysed using the General Inductive Approach for Analyzing Qualitative Evaluation Data [52]. The choice of such a simpler approach over more established approaches is taken as the aim is to understand how OJ overall is shaped during deployment. As such the project does not aim to generate new theories as would be the aim of Grounded Theory, and neither is the project aiming at understanding how this plays out for the individual, as would be the aim of Interpretative Phenomenological Analysis.

6.0 ETHICAL CONSIDERATION

Participation in the project is not expected to be related to any risk to health and safety for the respondents. A potential risk to their position within the Danish Defence could be a valid concern if unanimous data was breached. However, the following approach is set in place to avoid this.

Before each data sampling, respondents will be made aware of the use of the data and their rights according to GDPR.

For the questionnaires these will be handled by personnel with relation to the Danish Veteran Centre only, to secure that anonymity is maintained. Handling of raw data will be conducted by personnel with relation to the Research and Knowledge Centre (unit in the Danish Veterans Centre) only.

For the interview process specifically, issues of animosity will be handled by initiating all contact directly to the soldiers. When possible the interviews will be conducted face-to-face. However, during deployment

internet transmitted interviews (VTC) can be used.

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