MASTER THESIS

Behavioral change interventions in the military
The academic background, the cultural matches, and the bottlenecks with the integration

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Abstract

Behavioral change interventions have intensified over the years, and it is increasingly playing a central role in military operations. However, this new field also raises questions within the Netherlands armed forces. Behavioral change interventions based on academic methods are often more effective, but are their behavior change interventions based on academic methods? In addition, incorporating cross-cultural differences in behavior change methods is extremely important when behavior change interventions are carried out in an international environment. Thus, the behavior change methods should match with the cultures of the Netherlands armed forces and the target audience, but do they in the Netherlands armed forces? The aim of this study is to figure this out for the Netherlands armed forces. In the beginning, a literature review on behavioral change methods, behavior change interventions, the military culture, and cross-cultural differences within military interventions has been conducted. After gaining this knowledge, semi-structured interviews with experts from both the Netherlands armed forces and other international armed forces have been conducted. These interviews lasted in between 1-1.5 hours each and were analyzed using a Thematic Analysis which was structured using the Gioia method. Besides these interviews, a focus group with experts from the Netherlands armed forces was being held. The transcript from this focus group was used to categorize the data and was also structured using the Gioia method. Within the Netherlands armed forces, behavior change interventions are partly based on academic methods, but most of the behavior change intervention process is performed based on experience and gut-feeling. Furthermore, the most common target audiences can be characterized as we-cultures, while the Dutch military can be characterized as I-culture. This should be considered when developing the behavioral change intervention process, which in turn contributes to a match between the method, and the cultures of the Dutch military and the target audiences. In addition, this study also has unexpected results, because there are several bottlenecks that must be overcome first as they hinder the effectiveness of behavioral change interventions and corresponding methods.

Keywords: Behavioral change interventions, military culture, we-cultures and I-cultures, Netherlands armed forces

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1. Introduction

Over the past decades, a major switch from kinetic to non-kinetic warfare has happened in military operations. Non-kinetic engagements make use of non-military means to expand the effect space, which is contrary to the conventional battlefield (Lehto & Henselmann, 2020). Even though the complete non-kinetic warfare spectrum consists of Cyber Warfare, Electronic Warfare, and Information Warfare, the main focus of this research will be on Information Warfare (Lehto & Henselmann, 2020). This is because information operations have intensified over the years, and it is increasingly playing a central function in military operations (Haig & Hajdu, 2017). Nonetheless, this new kind of warfare is also bringing new challenges in the command, control, and execution of military operations (Haig & Hajdu, 2017). An important facet of information warfare is that it is necessary to understand the multifaceted and complex local culture of a particular country. As a consequence, this can lead to challenging intercultural situations that can be solved by the strong implementation of influencing operations (Bergier & Faucher, 2017a). Influencing operations, also behavioral change interventions, are aimed at shaping attitudes and behaviors, and gaining legitimacy and support of the local population (Bergier & Faucher, 2017a).

Examples of behavior change interventions, or non-kinetic operations, are Civil-Military Cooperation (CIMIC) actions, Key Leader Engagement (KLE), and Psychological Operations (PsyOps) (Faucher et al., 2012). These three examples are part of the Communication & Engagement[1] department of the Netherlands Armed Forces, and therefore these will be discussed in this research. CIMIC actions can be defined as actions based on the idea of shared interest in which the soldiers meet the needs of the local population. It is aimed at promoting a favorable perception of the soldiers and it is actively favoring the return to the social and economic situation of peacetime (Bergier & Faucher, 2017a). CIMIC actions include activities such as humanitarian assistance and advice, political and infrastructure support, etc. (Blasch et al., 2011). Another behavior change intervention is Key Leader Engagement, which consists of face-to-face meetings between military officers and local civilian influencers and power figures, also, key leaders. This leader is targeted with a specific argumentative message in an attempt to persuade him/her, to obtain a desired effect (Bergier & Faucher, 2017a). Thus, KLE is focused on influencing the behavior of a specific individual, and subsequently a group (Bergier & Faucher, 2017a). The third behavior change intervention is PsyOps and consists of sending messages by various means to reach a specific local population, and subsequently impacting their attitudes with ideally a behavioral effect (Bergier & Faucher, 2017a). The spread of these messages can be done by word of mouth or through mass media for example (Narula, 2004). Word of mouth is often done by trained groups, and the use of flyers or radio broadcasts are examples of the use of mass media (Norrman & Weissmann, 2020). However, these messages can only influence the behavior of a target group when communication is used correctly. Therefore, it is necessary to understand the nature of communication in a social environment, and the process of communication (Narula, 2004).

Communication in the context of this research is mainly related to psychological theory which is used to change the behavior of a target audience. In academic research, it is shown that there is often a lack of theoretical understanding of changing behavior when doing interventions (Michie et al., 2005). However, it is also stated that interventions that are

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[1] Communicatie & Engagement
https://magazines.defensie.nl/landmacht/2019/04/10_communicatie_als_wapen_04-2019

evidence-based are more desirable and effective than non-evidence based interventions (Francis et al., 2009; Glanz & Bishop, 2010). Therefore, it is important to have a look at evidence-based interventions. There have been many attempts to identify theoretical models that explain behavior change (Ashford, 2004). Nevertheless, these attempts make use of so many different theories which subsequently results in difficulties with selecting the right theoretical basis and the application of it. To reduce problem, Michie et al. (2005) introduced the Theoretical Domains Framework, which simplifies the use of theory in behavior change studies. In this framework, which will be discussed in more detail in the theory section, twelve theoretical domains were identified in which behavioral theories are included. Another theoretical framework that has been introduced is the Behavioral Drivers Model, which is aimed at offering a straightforward overview of the most recognized, sound, and tested contemporary approaches to human behavior and behavior change (Petit, 2019). This framework has included 25 of those approaches to human behavior and behavior change.

Based on the theories in these frameworks, behavior change interventions have been created (Michie et al., 2011; Petit, 2019). These methods consist of an analysis phase in which the behavior of the target audience is analyzed and is followed by an implementation phase in which these insights are used to influence the behavior of the target audience. However, a lot of these methods are focused on analyzing human behavior and not so much on how to change the behavior. Therefore, this research is focused on the methods that are aimed at changing behavior and not on analyzing and mapping behavior. Additionally, by conducting the research in the military context, an international aspect is also included in this research. This makes it interesting because most of the research that has been conducted in behavior change interventions is focused on a national level and not yet on the international level (Michie et al., 2013). Also, it has been stated that miscommunication becomes more frequent, and trust erodes when cross-cultural differences are not taken into account (Haig & Hajdu, 2017; Meyer, 2015). Therefore, it is deemed important to include the cross-cultural differences that are involved in military operations. Since military operations take place all over the world, many different cultures should be considered. However, since this would be too elaborate for this research and for the aim of universal guidelines with regards to culture, the world will be divided into 'we-cultures' and 'I-cultures' as initiated by Eppink (1981). In short, western countries such as the Netherlands can be characterized as I-cultures, while the countries where the Netherlands are doing military operations are often characterized as 'we-cultures'. Next to these we-cultures and I-cultures, the military also has its own culture that has to be considered when conducting behavior change interventions (E. G. Meyer, 2015; Soeters et al., 2006). A more elaborate explanation of these cultures and why they are interesting will be given in the theoretical framework.

In addition, this research was conducted in collaboration with the 1CMICO department[2] of the Netherlands Armed Forces. This department is specialized in behavioral change interventions, and they have an interest in the behavioral theories that lie behind the intervention methods of their own and other international Armed Forces. Additionally, they are interested whether these methods might be applicable, or even more useful for the Netherlands Armed Forces. Based on this interest, and the academic need mentioned above, the following research question has been formulated and will be answered within this research:

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[2] 1CMICO department https://www.defensie.nl/organisatie/landmacht/eenheden/oocl/cmi-commando

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"What are the theoretical underpinnings of the behavior change interventions currently used by Armed Forces in different North-Western countries, and to what extent do these interventions match the cultural behavioral preferences of the Netherlands armed forces as well as the citizens of the country in which they are on a mission?"

To answer this research question, the following sub-questions have been formulated:
1. What behavior change intervention methods do different international armed forces use during behavior change interventions?
2. To what extent do these methods correspond with academic behavioral change methods?
3. What are the similarities and differences between the behavior change intervention methods used by different international armed forces?
4. Which of the behavior change methods identified in literature are not yet used in a military context?
5. Which of the identified different methods would match the Netherlands armed forces when considering the behavioral preferences of the Netherlands armed forces as well as the citizens of the country in which they are on a mission?

A clear overview of the process of the research can be found in Figure 1: Conceptual Model. The remainder of this research consists of a theoretical framework where the literature review is discussed, followed by the methodology which goes into detail about the execution of the research. Then, the results coming out the research will be discussed. Finally, conclusions and recommendations will be provided.
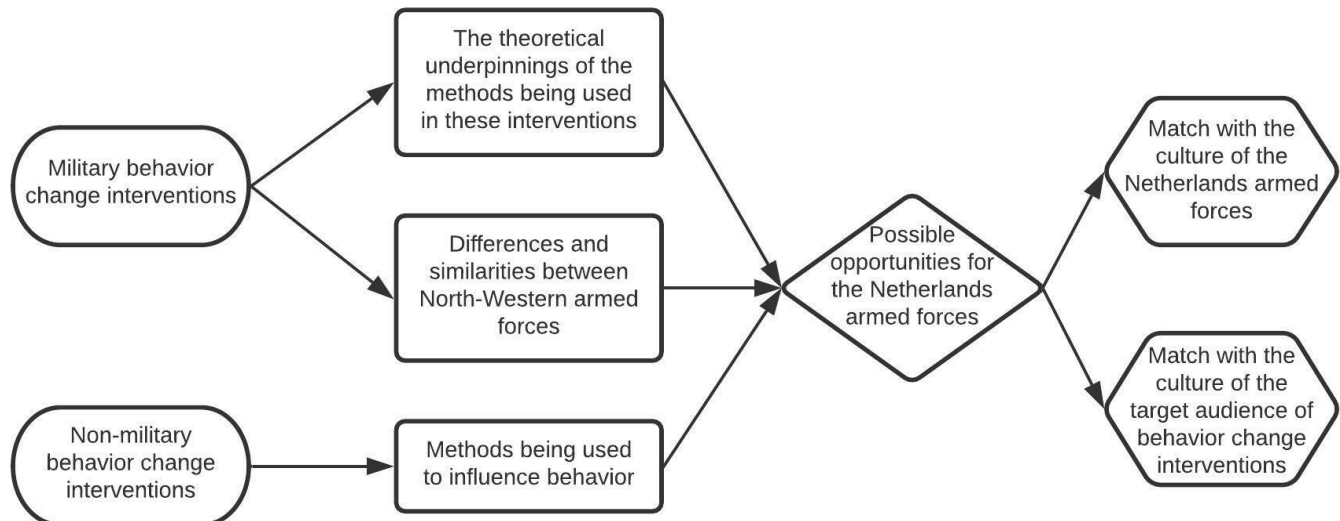
Figure 1: Conceptual Model

2. Theoretical Framework

To give a better understanding of the concepts that lie behind the research question, this theory section will elaborate on these concepts. First, behavioral change methods will be discussed. Then, influence operations in the military will be discussed. Finally, the importance of cross-cultural communication is highlighted.

2.1 Behavioral change methods

First, it is important to highlight that the behavioral change methods consist of behavioral change theories, behavioral change models, and behavioral change techniques. The behavioral change theories will be discussed in section 2.1.1, while the behavioral change models and techniques will be highlighted in section 2.1.2.

Before going into detail about specific methods, it is important to understand the field of Social Psychology, which is the study of the way in which people's thoughts, feelings, and behaviors are influenced by the real or imagined presence of other people (Aronson et al., 2019). An example in a military environment is that NATO-led soldiers inspect the site of a suicide attack in Afghanistan and want to find out what causes a person to become a suicide bomber. Some theories would say that people must be mentally ill, alienated loners, or psychopaths. But in social psychology, they would try to understand what the circumstances and situations are that drive otherwise healthy, well-educated people to commit murder and suicide for the sake of a religious or political goal (Aronson et al., 2019). Thus, it is aimed at understanding the behavior behind specific actions, and subsequently how this behavior can be influenced.

2.1.1 Theories of behavior & behavior change

More specifically, there are theories that are aimed at finding out more about behavior and behavior change. However, as already mentioned in the introduction, there is an abundance of these behavioral theories that try to explain behavior and behavior change. As a result, Michie et al. (2005) and Petit (2019) have created clear frameworks consisting of the most important theories of behavior and behavior change. These frameworks will be discussed in the next section.

The Theoretical Domains Framework (TDF)

To make the use of behavior and behavior change theories more accessible, Michie et al. (2005) introduced the Theoretical Domains Framework. It was firstly introduced in the health care sector, and it consists of twelve so-called theoretical domains which cover the most important theories of behavior and behavior change. In 2012, the model was measured on validity and the result of this was that the framework has a strong empirical base and that it provides a theoretical basis for intervention development (Cane et al., 2012). Besides the validity test, two theoretical domains were added, resulting in 14 theoretical domains, as can be seen in Appendix 1. Each theoretical domain includes several constructs, also called theoretical groups which cover the overarching theoretical domain. The framework can be used as both a planning tool to help identify determinants and appropriate techniques to change behavior, as well as an evaluation tool to assess how effective a behavior change intervention has been (Cane et al., 2012; Michie et al., 2005). Nevertheless, these domains are

still very abstract and cannot be used directly as intervention method for behavioral influence. However, the domains can be used in creating an intervention, as will be illustrated in section 2.1.2.

The Behavioral Drivers Model

Another framework aimed at making theories of behavior and behavior change more accessible is the Behavioral Drivers Model (Petit, 2019). This model is not initiated in the health sector, but in the social sciences, which makes this model different from the Theoretical Domains Framework. The Behavior Drivers Model is aimed at offering a straightforward overview of the most recognized, sound and tested contemporary approaches to human behavior and behavior change (Petit, 2019). In the end, 25 theories are included in the Behavioral Drivers Model, as can be seen in Appendix 2.

Up until this point, it is just as abstract and vague as the Theoretical Domains Framework. However, Petit (2019) builds further on the theories in the same study, while Michie et al. (Michie et al., 2005) do not. The theories can be placed in one of the following three categories: Psychology, Sociology, and Environment. The Behavioral Drivers Model assumes that these three categories drives an individual's behavior (Petit, 2019). The psychology category consists of cognitive biases, interest, attitude, self-efficacy, intent, limited rationality, and personal characteristics. Moreover, the sociology category consists of social influence, community dynamic, meta-norms, and context. Finally, the environment category contains the communication environment, emerging alternatives, governing entities, structural barriers, and also context (Petit, 2019).

Thus, both the Theoretical Domains Framework and the Behavioral Drivers Model provide you with interesting behavioral insights. However, the Behavioral Drivers Model includes specific theories which can be used later in the research, while the Theoretical Domains Framework does not. Nonetheless, the Theoretical Domains Framework is still important to include as it is used to design behavior change models and techniques, as will be discussed in the next section.

2.1.2 The application of behavioral insights

By understanding how people react and behave in different situations, you can better anticipate the behavioral consequences of your intervention and ultimately design interventions that can help citizens make a specific choice (OECD, 2019). This happens in the application of behavioral insights in interventions. The behavior change intervention process consists of several phases, but for the sake of this research, the process will be split up in two phases. The first phase uses behavioral insights to analyze the behavior of the target audience, while the second phase uses behavioral insights to directly influence the behavior of the target audience (Michie et al., 2013). These two phases will now be discussed separately.

Phase 1: Applying behavioral insights to analyze the behavior of the target audience

The first phase of the application of behavioral insights consists of the analysis of the behavior of the target audience. To clarify how this is phase is conducted, different models will be discussed. The first model that will be discussed is the Behavioral Dynamics Methodology,

which is a scientific approach to conducting effective and measurable strategic communication, influence, and behavior change (Emic Consulting, 2019). The model consists of five phases: Strategic Campaign Planning, Target Audience Analysis, Campaign Intervention Strategy, Implementation, and Monitoring, Evaluation and Learning (also referred to as Measurement of Effectiveness) (Emic Consulting, 2019). The Behavioral Dynamics Methodology makes use of behavioral insights as explained above and translates them into descriptive, prognostic, and transformative parameters. The descriptive parameters are relevant to influencing a group, but they do not tell us whether a group can be influenced or how to do it (Emic Consulting, 2019). The descriptive parameters are most relevant during the Strategic Campaign Planning phase. Pertaining the prognostic parameters, they are used during the Target Audience Analysis phase in order to derive the best possible influence pathway for the chosen Target Audience (Emic Consulting, 2019). The final parameters are the transformative parameters, which are mainly used during the Target Audience Analysis and Campaign Intervention Planning phases. This is because they help in deriving the best possible influence pathway for the chosen Target Audience, but also to design the best possible campaign to reach and effect change in the Target Audience (Emic Consulting, 2019). Thus, the model has parameters that can be used in the Strategic Campaign Planning phase, the Target Audience Analysis phase, and to some extent also the Campaign Intervention Planning phase. The transformative parameters, which can be used in the Strategic Campaign Planning phase, will be discussed in more detail in the second phase below. Nevertheless, there are no parameters that can be used in the Implementation Phase.

The second model that will be discussed in this phase is the BASIC framework (OECD, 2019). The framework transforms Behavioral Insights (BI) into policies that help change behavior. According to the BASIC framework, behavior can be changed with the following steps: Behavior, Analysis, Strategy, Intervention, and Change (also BASIC). The first two steps will be discussed in this phase, while the third, fourth, and fifth step will be discussed in the second phase below. Within the Behavior step, crucial behavioral aspects are identified and targeted, followed by the Analysis step in which target behaviors through the lens of behavioral science are scrutinized (OECD, 2019). The analysis step makes use of the ABCD (Attention, Belief formation, Choice, and Determination) framework, which examines which psychological and cognitive factors are causing the behavior of the target audience (OECD, 2019).

The third model is the Behavior Change Wheel from Michie et al. (2011). In designing this model, the Theoretical Domains Framework was used. Target behavior is characterized in terms of Capability, Opportunity, and Motivation, which in turn can be mapped into the theoretical domains as can be seen in Appendix 3. The Behavior Change Wheel consists of three circles for designing a behavior change intervention. In the inner circle, it is assumed that Capability, Motivation and Opportunity are all necessary conditions for a given behavior, but the behavior can also influence capability, motivation, and opportunity. Finally, the model assumes that capability and opportunity have an influence on motivation (Michie et al., 2011). Thus, it is used as a basis for specifying what drives and enables behavior patterns and individual behaviors. The middle circle consists of intervention functions and will be discussed in the second phase below. The outer circle consists of policy categories such as legislation, environmental and social planning, and service provision (Michie et al., 2011).

The fourth, and final, model that will be discussed in this first phase is the Behavioral Drivers Model as already introduced in section 2.1.1. The model is focused at identifying the main behavioral factors (psychology, sociology, and environment) to influence behavior (Petit,

2019). These behavioral factors are expanded into behavioral drivers that attempt to illustrate how humans think and how context shapes this thinking (Petit, 2019). It, thus, helps to analyze human behavior and does not provide clear techniques on how to influence the analyzed behavior.

Phase 2: Applying behavioral insights to influence the behavior of the target audience

Based on the analysis that has been conducted in the first phase, the behavior of the target audience can be influenced. This second phase is less researched in the military context, which is why models and techniques that have been introduced in a non-military context will be discussed. Part of this section builds further on the models mentioned in phase 1, while others are newly introduced in second phase.

First, the third, fourth, and fifth steps of the BASIC framework will be discussed. Building on the behavioral analysis that is conducted in the first two steps as explained in phase 1, the next step is to identify behaviorally informed strategies (step 3) that will effectively change the identified behaviors. The strategies are formed based on the ABCD (Attention, Belief Formation, Choice, Determination) analysis. The strategies that are discussed in the Targeting Attention analysis are as follows: timing and placement; make it relevant for one's state of mind; make it salient; send reminders; and, use prompts (OECD, 2019). With regards to the Targeting Belief Formation, the following techniques can be used: guide the search; make it intuitive; and support judgment. Subsequently, the strategies for Targeting Choice are to make it attractive by considering motives, creating perspectives, and triggering emotions; to frame prospects, and to make it social by connecting with social identities and creating a sense of community. Finally, Targeting Determination can be strategized by working with friction, providing with plans and feedback, committing devices, and by leveraging social norms. Finally, the interventions (step 4) are created based on these strategies, and then the change (step 5) is reflected on in the end (OECD, 2019).

The second model that will be elaborated on is the Behavior Change Wheel by going into depth about the middle circle: intervention functions (Michie et al., 2011). The circle includes the following nine intervention functions: education, persuasion, incentivization, coercion, training, restriction, environmental restructuring, modelling, and enablement. Education is used to increase the knowledge or understanding of the target audience. Persuasion is used to induce positive or negative feelings towards something or to stimulate action. Moreover, incentivization includes the creation of the expectation of reward for certain behavior. On the contrary, coercion includes the creation of the expectation of punishment or cost for certain behavior. Furthermore, training is used to impart skills and restriction is used to introduce rules to reduce the opportunity to engage in competing behaviors. Additionally, environmental restructuring is a function to change the physical or social context. Modelling is used to provide an example for people to aspire or imitate. The last function, enablement, increases means or reduces barriers to increase the capability or opportunity as explained in the COM-B model (Michie et al., 2011). Also, the Behavior Change Wheel is already proven to be effective in practice (Direito et al., 2017; Michie & West, 2012).

The third model is created by the Institute for Government (2010) and is called MINDSPACE. It is often characterized as a checklist for policy-makers and was originally created to help policy-makers apply behavioral insights in practice (Dolan et al., 2010). The MINDSPACE framework consists of Messenger, Incentives, Norms, Defaults, Salience, Priming, Affect, Commitments, and Ego. However, according to Michie et al. (2011), the MINDSPACE

model is limited. The framework does not appear to encompass all the important intervention types and the framework lacks coherence between the concepts (Michie et al., 2011). Therefore, this model will not be discussed in more detail, but the EAST framework builds further on the MINDSPACE framework and reduces the limitations. Accordingly, this framework will now be discussed.

EAST is short for Easy, Attractive, Social, and Timely (Service et al., 2015). These are the four principles that are used to apply behavioral insights that are created in academic literature. The first principle, make it Easy, includes the following characteristics: harness the power of defaults, reduce the 'hassle factor' of taking up a service, and simplify messages (Service et al., 2015). So, it captures the idea that it should be easy for the target population to perform the desired behavior. The second principle, make it Attractive, mentions that it is important to attract attention and to design rewards and sanctions for a maximum effect (Service et al., 2015). Thus, you should make it attractive for the target population to perform a specific behavior. The third principle, make it Social, captures the following ideas: show that most people perform the desired behavior, use the power of networks, and encourage people to make a commitment to others (Service et al., 2015). The fourth principle, make it Timely, includes the following: prompt people when they are likely to be most receptive, consider the immediate costs and benefits, and help people plan their response to events (Service et al., 2015). In short, this framework can be seen as a toolkit with important factors when trying to influence behavior.

The fifth model being discussed is the nudging method. Before going into detail about the process of this model, it is important to understand the definition of the term "nudging". According to Thaler and Sunstein, a nudge can be defined as: "… any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are no mandates. Putting the fruit at eye level counts as a nudge. Banning junk food does not" (2008, p. 8). Now the definition is clear, the process of nudging will be outlined. The nudge development process consists of four steps: 1) map the context, 2) select the nudge, 3) identify the levers for nudging, and 4) experiment and iterate (Ly et al., 2015). Mapping the context consists of understanding the decision-making process and determining the main heuristics and influences. Subsequently, in the nudge selection step, the suitable nudges are identified. Then, in the section about identifying the levers for nudging, possible constraints and areas where nudges can be implemented are identified. Finally, in the experimentation and iteration part, nudges are prioritized and tests for effectiveness are being held (Ly et al., 2015).

The sixth model is the Behavioral Insights Toolkit, which considers three factors that influence behavior: individual factors, environmental/design factors, and social factors. Within these factors the most relevant concepts will be discussed. These are either underlying concepts to understand behavior or tools that can be used to encourage behavior (*Behavioral Insights Toolkit*, 2016). The individual factors can be explained as follows: human decision-making is based on both deliberate and automatic modes of information processing. The corresponding individual concepts consist of cognitive lead, self-image, fast vs. slow processing, heuristics and biases, intention and commitment, rewards and penalties, and time distortion. The second factor is the environmental/design factor, which is included because most information processing is automatic. Additionally, our behavior is largely shaped by contextual factors and cues in the environment. The environmental and design concepts that correspond with this factor are choice architecture, feedback and reminders, framing and

priming, salience, simplification, and timing (*Behavioral Insights Toolkit*, 2016). The final factor is the social factor, which discusses that how people act and think often depends on the actions of those around them. Most people make efforts to conform to the social norms and expectations of others. The corresponding concepts belonging to the social factor are messenger effects, social norms, and reciprocity (*Behavioral Insights Toolkit*, 2016).

The final model that will be discussed is the CASI-model (Communicatie Activatie Strategie Instrument) which is introduced by the Dutch national government (Rijksoverheid, 2020). It is a model that is aimed at transforming academic insights about behavior into a structured way of communication. CASI identifies building blocks that can be used to change the behavior of a target group. It assumes that people often make decisions based on emotions, habits, and other people in the environment. Additionally, people are assumed behave in a specific way when they feel involved in a situation (Rijksoverheid, 2020). The steps that are identified are fairly similar to the BASIC framework that was introduced above (OECD, 2019; Rijksoverheid, 2020). However, the CASI-model is complemented with additional insights from academic literature (van den Putte et al., 2015). These additional insights are based on unintended influence on behavior, influencing risk perception, social influence on behavior, and resistance against influence. With regards to unintended influence on behavior, the following implicit communication strategies can be used: priming, nudging, modeling, attractiveness and reliability, fluency and repetition, and humor (van den Putte et al., 2015). Pertaining the influence on risk perception, it can be dived in two types of strategies: message strategies and emotional strategies. Message strategies can for example include framing and communication of risks. On the contrary, emotional strategies include emphasis on anxiety, disgust, regret, guilt, shame, and pride (van den Putte et al., 2015). Furthermore, social influence can change an individual's behavior as well. Finally, individuals may resist to be influenced, but there are resistance strategies and persuasive techniques that can be used to reduce the resistance to be influenced. Such strategies are avoiding resistance, making use of counter arguments, and self-reinforcement (van den Putte et al., 2015).

To give an overview of all the models and corresponding techniques a clear overview has been created and can be found in Appendix 4. The table includes the models, phase 1 and phase 2, and the techniques corresponding with phase 2. Only the techniques from phase 2 are included, because they will be used for the remainder of the research.

2.2 Behavior change interventions in the military

As already mentioned in the introduction, actions of influence have become very relevant over the past decades. The main goal of the actions of influence is to influence the behavior of the target audience in order to advance mission objectives (Faucher, 2011; Klonowska & Bekkers, 2021). Even though influencing the behavior of the target audience is part of all types of military operations, conflict has increasingly centered around people and information (Klonowska & Bekkers, 2021). These actions can be called behavior-oriented operations, behavior change interventions, and influence operations, but for the clarity of this research the term behavior change interventions will be used (Bergier & Faucher, 2017a; Francis et al., 2009; Klonowska & Bekkers, 2021).

Within the Dutch armed forces, behavior change interventions are part of the communication and engagement (C&E) department. This department focuses on researching, understanding, and influencing human behavior in a military context. The C&E department

consists of the following 7 operations: Information Operations (InfoOps), Civil-Military Co-Operation (CIMIC), Psychological Operations (PsyOps), Military Public Affairs (MPA), Key Leader Engagement (KLE), Operational Behavioral Research (Operationeel Gedragsonderzoek, OGO), and Strategic Communication (Stratcom)[3]. However, only part of these operations is focused at influencing the behavior of the target audience. As this research is focused at influencing behavior, only three of the operations will be discussed in more detail.

2.2.1 Psychological Operations (PsyOps)

Psychological Operations (PsyOps) are "planned activities using methods of communication and other means directed at approved audiences in order to influence perceptions, attitudes, and behavior, affecting the achievement of political and military objectives"[4]. Thus, PsyOps are aimed to influence the behaviors of a target audience by sending psychological messages (Van Vliet et al., 2010). These psychological messages are sent via various means such as radio, tv, social media, posters, and conversations (Bergier & Faucher, 2017a). Moreover, PSYOPS can be sub-divided into three types, namely: strategic, operational, and tactical PSYOPS (Narula, 2004). Strategic PSYOPS are conducted at a global/regional level to support national strategy. Operational PSYOPS are conducted within a defined geographic area as part of a joint operation for example. Finally, tactical PSYOPS are targeted at the individual engagements in consolidation of the overall effort against an opposing force or audience (Narula, 2004).

2.2.2 Civil-Military Co-Operation (CIMIC)

Civil-Military Co-Operations (CIMIC) can be defined as "a joint function comprising a set of capabilities integral to supporting the achievement of mission objectives and enabling NATO commands to participate effectively in a broad spectrum of civil-military interaction with diverse non-military actors"[5]. More specifically, such operations include international and domestic activities such as humanitarian assistance and advice, but also political and infrastructure support (Blasch et al., 2011). CIMIC actions are based on the idea of shared interest in which the needs of the population are met, while promoting a favorable perception of the soldiers (Bergier & Faucher, 2017a). However, the success of these CIMIC actions depend upon the understanding of the environment and its constituent elements and systems. It is very important to plan these actions in order to make them a success (Blasch et al., 2011).

Thus, CIMIC actions are aimed at creating a shared interest between the soldiers and the needs of the local population. Specific examples from the Netherlands Armed Forces consist of Cultural Affairs & Education, Civil Administration, Civil Infrastructure, Humanitarian Affairs, Economy & Employment, and the Development of Entrepreneurial Activities[6].

2.2.3 Key Leader Engagement (KLE)

Key Leader Engagement (KLE) consists of face-to-face meetings between military officers and local civilian influencers and power figures (Bergier & Faucher, 2017a). It is conducted at every hierarchical level, and it is widely recognized as fully necessary for a good integration of the

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[3] C&E department https://magazines.defensie.nl/landmacht/2019/04/10_communicatie_als_wapen_04-2019
[4] NATO Handbook Psychological Operations (p. 1)
[5] NATO: Allied Joint Doctrine for Civil-Military Cooperation (p.35)
[6] Civiel-militaire samenwerking in missiegebieden https://www.defensie.nl/onderwerpen/missies/civiel-militaire-samenwerking-in-missiegebied

Force in the environment of the conflict (Lindoff & Granåsen, 2011). KLE can be divided into two types, namely: the Routine KLE and the Persuasion KLE (Bergier & Faucher, 2017a).

The Routine KLE represents the implementation of KLE at the macro scale of operations, aiming at no particular effect besides establishing and cultivating good relations between the leaders to increase legitimacy of the Force in the eyes of the local official, unofficial authorities, and public figures (Bergier & Faucher, 2017a). Such good relations is often seen as a prerequisite for useful negotiations (Nash & Magistad, 2010).

On the contrary, the Persuasion KLE is not focused at the macro level, but it involves a specific leader chosen in the population and this leader is targeted with a specific argumentative message in an attempt to persuade him/her, to obtain a desired effect (Bergier & Faucher, 2017a). Thus, this type of KLE is focused more on influencing the behavior of a specific individual, and subsequently a group.

2.3 The importance of cultural understanding in military operations

The methods of behavior change mostly have been introduced from a Western perspective, and not from a non-Western perspective. However, cultural understanding is deemed very important when trying to influence the behavior of a target audience with a different culture (Wolfe, 2011). Since this is the case in military operations, it is important to be culturally understanding before trying to implement behavior change methods. To support this statement, the following example of a situation where there was no cultural understanding is given. The U.S. army in Afghanistan and Iraq showed that the U.S. troops had no emphasis on cultural understanding, which resulted in problems for military operations at the strategic and tactical levels (Hajjar, 2010). The lack of cultural competences during these operations also resulted in a lack of support from local Iraqis and Afghans (Wolfe, 2011). After these failures, more emphasis has been placed on understanding the culture of the civilians of a country. This has been done with models to analyze the different social and cultural networks of a country such as the Multidimensional Social Network (Forestier et al., 2015). However, as mentioned earlier, this research is not aimed at the analysis of behavior, but at the implementation of this analysis leading to behavioral change. And as already mentioned in the introduction, miscommunication becomes more frequent and trust erodes when cross-cultural differences are not taken into account (Haig & Hajdu, 2017). Moreover, research on the cross-cultural competence of the Dutch military in Afghanistan has found out that better cross-cultural competence directly influences the effectiveness of military personnel in foreign missions (De Ridder et al., 2010). Also, it is important to realize that intercultural communication in a military context is different than in a non-military context. When discussing the various aspects of intercultural communication in a military context, the following considerations should be taken into account: military (sub)culture, national/ethnic identities, social systems/circumstances, and religious beliefs and differences (Georgieva & Marinov, 2017).

As a result of this, the remainder of this section about culture will be twofold. One section will discuss the culture of the Netherlands armed forces, and thus, the military (sub-)culture. The other section discusses the cultures of the target audiences, which also includes the national/ethnic identities, social systems/circumstances, and religious beliefs and differences.

2.3.1 The culture of the Netherlands armed forces

Before specifying on the culture of the Netherlands armed forces, the military culture in general will be discussed. Military organizations represent a specific occupational culture which is relatively isolated from society (Soeters et al., 2006). In the research from Atuel & Castro (2018), the military culture in general can be divided in the formal structure, the military norms, and the military identity. The structure of the military is characterized as a power hierarchy that revolves around a succession of commanding officers that are differentiating superior and subordinate roles. This power hierarchy is critical in identifying the rightful place of officers, the relationship with other officers, and in dictating appropriate behavior based on the officer's role and status (Atuel & Castro, 2018). Besides the formal structure, the military has its own history and norms (Meyer, 2015). Before coming into the military, recruits complete a basic training that involves engaging in a set of regimented behaviors. During this training, the recruits learn the primacy of the group over the self, which means that they must shift their perspective from an individualistic outlook to a collectivistic orientation. Additionally, they learn the values of honor, integrity, commitment, loyalty, respect, and devotion to duty (Atuel & Castro, 2018). Finally, the military identity is often described as a "warrior culture" where the members are in a constant physical and psychological state of combat readiness (Atuel & Castro, 2018).

Other authors that discuss the culture of a military organization are Soeters et al. (2006). According to them, the culture of a military organization differs from other organizations based on communal life, hierarchy, and discipline (Soeters et al., 2006). With regards to the communal character of the military life, the so-called I/O (Institutional/Occupational) model is often used. Military cultures are found to be way more institution oriented when compared to other organizations, which means that within the military they are less inclined towards private life and material gains (Soeters, 1997; Soeters et al., 2006). The second point of difference is hierarchy, where military organizations are characterized as bureaucracies or procedural organizations. This refers to the importance of the hierarchy and rules and regulations in the organization (Soeters et al., 2006). Additionally, the power distance, i.e. hierarchy, in military organizations is way higher than in other organizations (Hofstede, 1980; Soeters et al., 2006). The third difference between military organizations and other organizations concerns discipline, which is the extent of compliance with rules, the acceptance of orders and authority, and the way an organization deals with disobedience through overt punishment (Arvey & Jones, 1985; Shalit, 1988). Overall, military organizations score higher on discipline than other organizations. However, this does differ slightly amongst different countries. Therefore, the culture of the Netherlands armed forces will now be discussed.

The culture of the Netherlands armed forces will be compared with the Dutch culture as described in Hofstede (1980). Each of the dimensions from Hofstede will be discussed. The first dimension is Power Distance, where the Netherlands as a country scores 38, while the military scores 96. This indicates that the Power Distance in the Netherlands armed forces is much higher than in the Netherlands as a country in general (Soeters, 1997). The second dimension is uncertainty avoidance, where the Netherlands as a country scores 53, and the armed forces scores 44 (Soeters, 1997). This is a slight reduction, meaning that the armed forces are less uncertainty avoidant. The third dimension is about individualism. In this dimension, the Netherlands as a country scores 80, meaning that they are very individualistic. However, within the armed forces this score is 52, which is a large reduction (Soeters, 1997). This is also in line with what Atuel & Castro (2018) stated about the cultural norms within the

military. Additionally, Bjørnstad & Ulleberg (2017) are also agree with this by concluding that the normal individualism-collectivism scores of countries based on Hofstede (1980) are not applicable to the military. The fourth, and final, dimension that will be discussed is the masculinity dimension. The Netherlands in general score very low on this dimension, namely, 14. This means that there is a preference for cooperation, modesty, caring for the weak, and quality of life (Soeters, 1997). Nevertheless, the Netherlands armed forces score even lower on the masculinity, meaning that they value the aforementioned characteristics of a low masculinity score even more. In short, it can be concluded that the Netherlands armed forces score more extreme on the different dimensions of Hofstede (1980).

2.3.2 The cultures of the target audiences

For this research, it would be too elaborate to include the cultural differences of specific countries. Additionally, for the aim of universal guidelines with regards to culture, the world in this research will be divided into 'we-cultures' and 'I-cultures' as initiated by Eppink (1982). In these cultures the individual is central in I-cultures and the group is central in we-cultures (Azghari, 2005; Eppink, 1981; Pinto, 2007). The Netherlands, Germany, the UK, and the USA are typical 'I-cultures', while countries in the south and east of Europe, Asia, South America, and the Middle East are 'we-cultures'. This is a very big difference and communication should be adapted when these different cultures communicate with each other. A clear overview of the differences of 'we-cultures' and 'I-cultures', based on Azghari (2005), Eppink (1981), and Pinto (2007) can be found in Table 1 below. The differences are divided within one of the following five sections: status and prestige, behavior, society, communication, and conflicts. Finally, the central values of the we-cultures and -cultures are presented in the table.

The common structure of we-cultures and I-cultures			
Status and prestige		**Behavior**	
We-culture	**I-culture**	**We-culture**	**I-culture**
Role in the group	Individual in society	Behavior is situational	Behavior depends on the individual
Honor of the group	Personal success	Courtesy and hospitality	Openness
Afraid of shame, disgrace and losing face	Afraid of guilt	Relationship-oriented	Content-oriented
Respect the hierarchy	Equality	Strangers should be mistrusted	Strangers should not be mistrusted
Visible wealth	Personal wealth	What one does not see is not there	Facts are facts
		Emotional	Rational
Society		**Communication**	
We-culture	**I-culture**	**We-culture**	**I-culture**
Social position depends on origin	Social position depends on personal achievement	Implicit communication	Explicit communication
Society consists of in-group and out-group	Society consists of individuals	Relational	Content
Hierarchy is important	Emphasis on equality	Business and personal are intertwined	Business and personal are separated
Social control	Control by third parties	Socially desirable answers	Honest answers
Reciprocity	Charity	Small interpersonal space	Large interpersonal space
Little social mobility	Great social mobility		

Conflicts		Central values	
We-cultures	**I-cultures**	**We-cultures**	**I-cultures**
Avoid public confrontations	Direct confrontation	The prevention of: - Loss of face - Shame - Disgrace	The prevention of: - Guilt
Honor is more important than facts	Facts are more important than honor		
Avoid conflicts	Fast termination of conflicts	Pursuing: - Respect - Obedience - Dignity	Pursuing: - Personal success - Self-development
Emotions are shown	Emotions are suppressed		

Table 1: The common structure of we-cultures and I-cultures (Azghari, 2005; Eppink, 1981; Pinto, 2007)

3. Methodology

This Methods section will be structured as follows. First, the research design will be discussed in which the general empirical approach will be described. Then the sample selection will be elaborated on, in which the choice for participants will be explained. Subsequently, the data collection procedure will be discussed. Finally, the data analysis process will be elaborated on.

3.1 Research design

The main goal of this research is to find out whether the behavior change intervention methods used by the Netherlands armed forces during military operations are based on academic methods, are effective, and are matching the cultures of the home country and the target audiences' country. Therefore, inductive research will be conducted, meaning that the approaches of different international armed forces will be compared and conclusions will be drawn from that data (Babbie, 2010). Moreover, qualitative methods are used which allows to get a detailed and clear understanding of the situation (Yin, 2011). Qualitative methods are used to contribute to insights into existing or emerging concepts that may help to explain human behavior (Yin, 2011). Within this study, it is necessary to get a clear and detailed understanding of the situation and behavior within the military. In addition, since the study deals with the views of experts on behavior change interventions in the military, a study of qualitative nature fits better than a quantitative nature.

The analysis will be an iterative process characterized as 'theory-data-theory-data'. Thus, theory is used to collect new data, and then the new data is used in combination with existing theory to create a new theory. This new theory is then used to collect data again. First, a literature review on behavioral change methods has been conducted, see the previous chapter. Then, this collected data was used as a basis to create useful semi-structured expert interviews, which were used to answer the first four sub-questions. Expert interviews are a widely-used qualitative interview method aiming at gathering information about or exploring a specific field of action, as is the case in this research (Döringer, 2021). Subsequently, the data collected in the first four sub-questions was used in combination with the literature review for the data-collection process for sub-question 5. The additional data-collection process for sub-question 5 consists of a focus group with experts. In the end, the combination of answers to the five sub-questions have resulted in an answer to the research question. An overview of this design can be found in Figure 2 below. Another overview to clarify the process can be found in Appendix 5. Moreover, a more specific explanation of this process will be given in the upcoming sections.
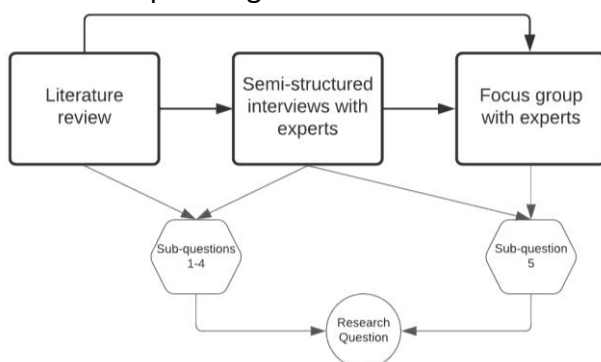

Figure 2: Research Design

3.2 Sample selection

With regards to the first four sub-questions, interviews with employees from the Netherlands armed forces, and from strategic partners of the Netherlands armed forces were held. These strategic partners in this research consist of Germany, the United Kingdom, the United States of America. Because of these partnerships, it was most likely to get the most detailed information from these international armed forces. Additionally, all these countries belong to the so-called I-cultures (Eppink, 1981), which makes them comparable to the Netherlands armed forces. Nonetheless, there was a possibility that the other internationals are not willing to share everything. Therefore, careful preparation for these meetings was necessary to get the full potential out of the interviews.

In the first phase, it was important to schedule interviews with employees that are experts in the field of behavior change operations. Only experts on this field were interviewed to avoid sampling of non-representative informants, as is highlighted as a pitfall in Miles et al. (2019). For this research, 9 employees from different international armed forces were interviewed. The sample consisted of 5 Dutch employees, 2 British employees, 1 German employee, and 1 American employee. Within this sample, both commissioned as well as non-commissioned officers were included. An overview of this sample of the interviewees can be found in Table 2. This variety of employees allowed to get a more complete picture of the methods being used internationally.

After processing the interview data, a focus group with experts from the Netherlands armed forces was held. This focus group was held with 7 employees from the Netherlands armed forces. A typical group size for focus groups is six to ten, meaning that seven is in between this typical size (Morgan, 1998b). These seven employees have different roles within behavior change intervention process and are on average not working together daily. However, they all have a similar interest in behavior change interventions, which is considered to be important in a focus group (Morgan, 1998a). The sample resulted in different perspectives with interesting discussions. The sample consists of people who did the Behavioral Dynamics Methodology (BDM) course, are experts on behavioral research, or are experts on culture in military interventions, as can be seen in Table 3 below. This combination of experts resulted in a focus group with multidisciplinary insights.

	Type of service member	
Country	Commissioned officer	Non-commissioned officer
The Netherlands	4	1
The United Kingdom	2	0
Germany	0	1
The United States of America	1	0

Table 2: Sample of interviewees

Type of expert	**No. of participants**
Followed the BDM course	3
Did not follow the BDM course, but are experts on behavioral research	3
Expert on culture in military interventions	1

Table 3: Sample of the focus group

3.3 Data collection

The data for this research was collected through various data collection techniques, namely: a literature review, semi-structured interviews, and a focus group. The combination of semi-structured interviews and a focus group has received attention in academic research as well. In a complementary fashion, focus groups help to check the conclusions from the individual in-depth interviews (Morgan, 1996). The collection of this data will be discussed separately in this section.

3.3.1 Literature review

At the beginning of the research, a literature review has been conducted. This consisted of an extensive search through Scopus, Google, and the database of the Armed Forces. Within this search, different topics were discovered and discussed, namely: theories of behavior and behavior change, behavior change models and techniques, behavior change interventions, the military culture, and cross-cultural differences within military interventions. This range of topics resulted in an elaborate overview of the behavior change interventions conducted by armed forces or by academics in general. The result of this literature collection process can be found in the theoretical framework in chapter 2 of this research.

3.3.2 Semi-structured interviews

Based on the information being found in the literature review, semi-structured interviews have been created, and were conducted with expert employees from different strategic partners of the Netherlands armed forces. The interviews were semi-structured, which can be seen as a mix between both structured and unstructured interviews. An interview guide is created with questions, yet, there is also room for questions that might arise during the conversation (Bryman, 2008).

The questions in the semi-structured interviews are based on the information being found in the literature as already mentioned, meaning that the following concepts have been discussed: theories of behavior and behavior change, behavior change models and techniques, behavior change interventions, the military culture, and cross-cultural differences within military interventions. However, before going into these concepts the goal of the research was explained, and some introductory questions were asked. These introductory questions consisted of questions about the ranks and functions of the interviewees, the number of years of experience, the countries of deployments, etc. Additionally, questions on what the interviewee considered to be a successful or effective behavior change intervention were asked. Then, the topics mentioned above were discussed. During the interviews, there was often asked for examples to clarify certain statements. This was useful as the field of behavioral influence is complex and such examples are very beneficial for increasing the understanding. Also, additional questions that came to mind based on statements from interviewees were asked, which was allowed because of the semi-structured nature of the interviews. The interview guide can be found in Appendix 6.

In the end, the interviews took 1 to 1.5 hours each, resulting in 9 hours and 42 minutes of interviewing in this phase of the data collection process. This duration of the interviews resulted in extensive and very detailed results, which is very useful in the complex field of behavioral influence (Yin, 2011).

3.3.3 Focus group with experts

After the data from the interviews was transcribed, coded, and analyzed, as will be discussed in more detail in section 3.4, the focus group with experts was conducted. The groups are "focused" because individuals who are experts on the specific field of behavioral influence were gathered. Moreover, during focus groups the researcher is functioning as moderator. Within this role as moderator, you have to make sure that every member of the focus group gets the ability to express their opinions, while making sure that the topic does not get off topic too much (Yin, 2011). An advantage of using a focus group as data collection compared to interviewing is the gain in efficiency as it is possible to speak with several people at the same time. Nonetheless, the disadvantage is that you gain less information from any single participant when compared to interviews (Yin, 2011). However, this disadvantage is not a problem for this research as in-depth interviews with experts have been conducted as well.

The location of the focus group was chosen in the most convenient and comfortable way for the participants. The room for the focus group was in one of the renovated buildings at the military base in Apeldoorn, which is also the location where most participants are working daily. Moreover, there is more than enough parking available, and the atmosphere of the room was pleasant because it was just renovated. It was not a room where one person would feel more comfortable than another, because none of the participants has been working in that room before (Morgan, 1998b). In addition, there were refreshments and hot drinks that the participants could get at any time to make them feel comfortable.

The duration of the focus group was 1.5 hours, in which was aimed at half an hour of presentation from the researcher and one hour of discussion from the experts. The first 15 minutes of the focus group consisted of an introduction of the researcher and the participants, a short explanation of the research, and the aim of the focus group. The second part of the focus group consisted of three small presentations of the results from the literature review and the interviews, each of them followed by statements to be discussed by the participants of the focus group. For each of the presentations and according statements an approximate timeframe has been set. This was to avoid that important topics would not have been discussed. With regards to the statements, they were formed in such a way that they were appropriate for each participant, which is deemed very important in Morgan (1998b). The first presentation elaborated on the results of the behavior change methods that are used internationally. An example of a statement that was followed on this presentation is the following: "There should be one behavioral change method which can be used by all and is applicable to all situations". The second presentation was about the use of behavior change methods in combination with the Dutch military culture. The final presentation was about the findings with regards to the culture of target audiences in combination with behavior change methods. Besides the statements, there was also room for a discussion about an ideal situation for the integration of behavior change methods in the military process. Finally, in the end, everyone was asked about the most important and valuable point of the focus group in their opinion. This was important to do since each participant got the opportunity to mention their highlights again (Morgan, 1998b) In addition, to avoid bias later in the process, confirmative questions were asked during the focus group. An extensive overview of the focus group guide can be found in Appendix 7. Moreover, the presentation being held in this focus group can be found in Appendix 8.

3.4 Data analysis

The data analysis will be explained by discussing the interviews and the focus group separately, as they were also used at different phases in the iterative nature of this research. Also, additional bottlenecks have been analyzed in the interviews and the focus group, which will be explained in a separate section as well.

3.4.1 Analysis of the interviews

All the interviews were recorded with the use of the "Dictafoon+" application, after getting approval from the interviewees via an informed consent. After the interviews were conducted, the recordings were transcribed with both the "Otter.ai" tool and the "Amberscript" tool. The interviews were transcribed in a naturalized type of way. This means that the audio was directly translated to paper without any adaptations (Oliver et al., 2005). So, everything was written down exactly as was being told.

After all the interviews were transcribed, all the transcripts were read in detail. Then, thinking balloons were formed to highlight interesting, common, or conflicting statements from the interviewees. Subsequently, the interviews were analyzed in a thematic way. Within thematic analysis you search for themes or patterns, which in turn are common to more than one of the interviews in the complete interview set (Braun & Clarke, 2006). To ensure the reliability of the themes, they were only created when they were mentioned by more than one of the interviewees. Based on this thematic analysis, the themes were translated into a data structure based on the design from Gioia et al. (2012). The data structure, and thus the coding theme, was created by engaging the data from the interviews, as explained in Locke et al. (2020). This data structure is relevant for studies of inductive nature, and this is the case in this study (Gioia et al., 2012). The development of the design of the data structure has resulted in a clear scheme with overarching themes, 1st order themes, and 2nd order themes. This scheme was used as coding scheme, as can be seen in Appendix 9. All the interviews were coded based on this scheme via the "ATLAS.ti" coding tool. Based on the results from this coding scheme, the first three overarching themes based on the behavior change methods (models to change behavior, techniques to change behavior, and behavior change theories) were used to answer the first four sub-questions.

To answer the first sub-question, the behavior change methods were discussed for each of the four international armed forces that were included in this research. This resulted in an overview of all the methods, which answered the first research question. Then, all the methods were combined in a scheme in Microsoft Excel to create a clear overview. Within this scheme, three colors were used to identify the academic level of the method: green was used for academic methods, orange was used for methods that contained academic elements, and red was used for non-academic methods. By using these colors, it was possible to answer the second sub-question about the correspondence of the behavior change methods with the academic theory being discussed in the literature review of this research. This was done by creating a table with a small summary of the academic background of the models, techniques, and theories. Subsequently, the scheme from Microsoft Excel was again used for answering the third sub-question where the similarities and differences between the behavior change intervention methods were discussed. Finally, the analysis from the interviews was used in combination with the literature review to answer the fourth sub-question. To answer this sub-question, tables were created consisting of the behavior change models, techniques, and theories that were derived from the literature review. Then, the results from the interviews

were mapped into these tables to see whether there are methods in the academic literature that are not yet used in a military context. By using this mapping technique, it was possible to identify the methods that were not yet used in a military context, resulting in an answer to the fourth sub-question.

3.4.2 Analysis of the focus group

In line with the interviews, the focus group was also recorded with the use of the "Dictafoon+" application on the mobile phone after gaining approval from all the participants. The recordings were again transcribed in a naturalized type of way, as described in Oliver et al. (2005), with the help of the "Amberscript" tool as it allows to translate a Dutch audio recording. Besides the recording, there was also a colleague present to take notes in case the audio did not cover everything. The combination of the transcript and the notes were used in the analysis of the focus group. By making use of the notes from the note taker as well, the perspectives from someone else's point of view have been considered as well. This avoids biases stemming from the researcher when analyzing the data of the focus group (Miles et al., 2019).

Based on the combination of the notes and the transcript, the arguments on the statements from all the experts were listed to create a clear overview. Also, additional input which could not be placed under one of the statements was listed as well. This document was in turn used to draw conclusions on the three topics of the fifth sub-question: the preferences of the Netherlands armed forces, the culture of the Netherlands armed forces, and the culture of the common target audience during deployments. So, the transcripts and notes of the focus group were used to categorize the data (Grodal, 2020). Moreover, the conclusions have been supplemented with insights from the final four overarching themes of the coding scheme from the interviews, also based on the layout of Gioia et al. (2012). Also, just as in the analysis of the interviews, the coding was done by engaging the data. The final overarching themes were as follows: culture, measuring behavioral change, problems with the implementation, and ideas for the implementation of behavioral change, as can be seen in the coding scheme stated in Appendix 9 as well.

Subsequently, after stating all the conclusions on one of the three topics from the sub-question 5, a summarizing answer was formulated. Thus, the answer is based on the analysis from both the interviews and the focus group.

3.4.3 Bottlenecks in applying behavior change intervention methods based on the analyses

After analyzing both the interviews and the focus group, additional bottlenecks have been identified. These bottlenecks could not be discussed properly when answering the sub-questions but are deemed very important for the result of this research. The iterative process of this research allows the gathering of these unexpected bottlenecks, and therefore, they are discussed in addition to the answers to the sub-questions (Schneider et al., 2017).

4. Results

First, each of the sub-questions will be answered. A final section deals with bottlenecks in applying behavior change intervention methods.

4.1 What behavior change intervention methods do different international armed forces use during behavior change interventions?

The behavioral change intervention methods consist of models, techniques, and theories as explained earlier in section 3.4.2 and Appendix 9. For each country the behavioral change intervention models, behavior change techniques, and the behavior change theories will be discussed. This will be done based on the results in table 4 below. Within this table, three colors have been used, but these will be discussed in section 4.2 later.

Behavior Change Methods			
Countries	**Models**	**Techniques**	**Theories**
Netherlands	BDM COM-B model CASI model Relationship-building Common-sense model PsyOps Cycle	KLE or SHE Weapons of influence Indirect influence Having empathy Making use of humor Speaking the foreign language PPP Network creation	Social Cognitive Theory KAB theory Theory of Reasoned Action / Planned Behavior Self-Determination Theory
Germany	NATO doctrine PsyOps Cycle	Weapons of influence Line of Persuasion in PsyOps Cycle PPP Working together with the target audience	KAB theory Theory of Reasoned Action / Planned Behavior Social Norms Theory
United Kingdom	COM-B model ISM model Behavioral Drivers Model Behavioral Flow Model OODA loop Theory of Change Narrative building	Weapons of influence Using someone from the target audience PPP Reciprocal accuracy Exploiting vulnerabilities	Metacognition Trauma Theory
The United States of America		Repetitious delivery of messages Telling the truth Negotiation Using someone from the target audience Carrot-and-the-stick approach Coercion	

Table 4: Academic background of behavior change methods in the military

4.1.1 The Netherlands

Behavioral change models

Within the Netherlands armed forces, the Behavioral Dynamics Methodology (BDM) is the main model. However, other models are also used for creating the behavior change intervention strategy and the implementation of it. These models include COM-B from the Behavior Change Wheel and the CASI (Communicatie, Activatie, Strategie, Instrument) model. Also, relationship-building with the target audience was seen as a behavior change intervention model. By paying specific attention to the relationship-building process, the attitudes of the target audience might change, resulting in a higher level of trust. This higher level of trust leads to a greater access of correct information to be used for behavioral influence. Furthermore, the so-called "common-sense model" is used as well. It is not based on academics, but just on common sense. It is about talking to people, having a moment to sit down and talk to them and listen. In addition, the Dutch make use of the PsyOps cycle as is explained in the PsyOps NATO doctrine. Besides these models, they often "do what they think is good". They use their experience and gut-feeling to create and implement the behavior change intervention strategy more often than they make use of academic models.

Techniques to change behavior

The Netherlands armed forces utilize many different verbal and non-verbal techniques to influence the behavior of the target audience. The first is talking to important persons in the target audience, also, Key Leader Engagement (KLE) or Stakeholder Engagement (SHE). Other techniques are the Weapons of Influence of Cialdini for face-to-face communication and the parameters of BDM. Moreover, "indirect influencing" was highlighted, as was the typical "Dutch approach". The Dutch approach consists of techniques such as showing empathy, making use of humor, and trying to speak the foreign language.

   Besides the verbal techniques to influence behavior, non-verbal techniques are also used. One of the non-verbal techniques is the use of PPP (Presence, Posture, Profile). PPP is a very symbolic communication tool engaging people before any form of verbal narrative takes place. Another example was the creation of a network of solid relationships. This network will lead to an increase in trust resulting in a change of behavior. Finally, it was highlighted that verbal and non-verbal techniques are often used in combination to change the behavior of the target audience.

Theories to change behavior

Besides the models and techniques, the Dutch also make use of theories to create and implement behavior change interventions. The first academic theory that has been used is the Social Cognitive Theory of Bandura. Another academic theory that has been used is the Knowledge – Attitude – Behavior (KAB) theory. This theory is partly in line with the Theory of Reasoned Action of Fishbein & Ajzen. Finally, the Self-Determination theory of Ryan & Deci is being used. Thus, different theories are being used in the creation and implementation of a behavioral change intervention strategy, but there are still limitations to most of these theories. This is because the behavior of an individual or a group can never be fully predicted with the theories.

4.1.2 Germany

Behavioral change models

The interview with representation of the German armed forces made clear that they do not make use of specific behavior change models at all. The Germans are focused very much on NATO doctrines. Yet, it was mentioned that they would be allowed to deviate from the NATO doctrine to some extent. Because of the close ties with the Netherlands, the Germans are familiar with the BDM methodology, but they do not make use of it. Moreover, as it is part of the NATO doctrine, the Germans make use of the PsyOps cycle during psychological operations. From a German point of view, behavior change models may be diverse as long as they do not deviate too much from the NATO doctrines.

Techniques to change behavior

The Germans make use of the Weapons of Influence of Cialdini for face-to-face communication. Besides Cialdini, the Germans also make use of the NATO PsyOps cycle, as was already mentioned above. Within this cycle, there is a specific step for the target audience analysis. Within this step there is a "Line of Persuasion" which consists of techniques from Cialdini's Weapons of Influence such as authority, scarcity, unity, etc. Another technique being used by the Germans is the use of intermediate local persons, or indirect influence. They try to change the behavior of the social environment involving locals to get access and influence the ultimate target audience.

PPP is being used as a non-verbal technique to influence behavior. In addition, they try to work together with the target audience as much as possible to increase the positive perception of the German presence. E.g., the Germans set up a Regional Media Information Center (RMIC) together with the Afghans in Mazar-i-Sharif to work together with them. They also make use of locals because they believe that behavioral change works much better if people of the target audience try to persuade them.

Theories to change behavior

The Germans are familiar with the KAB theory and the Theory of Planned Behavior and Reasoned Action, but they do not make use of these theories anymore. They focus directly on the behavior instead of focusing on attitudes, for example. Additionally, they try to influence the social environment of the target audience, because they believe that the target audience will listen to the people from the same social environment. Even though the specific theory was not mentioned, this is in line with the Social Norms Theory of Perkins & Berkowitz.

4.1.3 The United Kingdom

Behavioral change models

The UK armed forces are relatively advanced in the use of behavior change models for the creation and implementation of behavior change interventions when compared to the other countries involved in this research. The behavior change intervention process is more integrated in the organization compared with the Netherlands. The academic models are translated into the military process. This is for example done by combining and adapting methods, as will be explained in the next section.

The British do not make use of the Behavioral Dynamics Methodology as they prefer the use of other models. The main model being used by the UK is the COM-B model, but to effectively use it, one needs a six-to-nine-week window. When this timeframe is shorter, the ISM (Individual, Social, Material) model of the Scottish government is being used. Moreover,

the COM-B model often is used in combination with the Behavioral Drivers Model. Furthermore, the UK armed forces make use of the Behavioral Flow Model going back to Maslow's hierarchy of needs. This Behavioral Flow Model was adapted from the Terrorism Flow Model but does not include the cognitive part of the behavior change process. Also, the OODA (Observe, Orient, Decide, Act) loop is a popular step-by-step process model for a behavior change intervention. This model is also used in other intervention processes than behavioral change. Moreover, the Theory of Change is being used, which is a model that defines long-terms goals and then maps backwards to identify necessary preconditions. This model also helps to demonstrate that the goals have been achieved in the end.

A prerequisite of an effective behavior change intervention is "having a narrative", which is also used as a model. It is assumed that you need to have a strong internal narrative to understand how behavior can be changed in a specific audience. An internal narrative is directed towards the people within the military organization. Having a clear narrative helps in envisioning the desired end state. In addition, this strong narrative needs to be combined with commitment according to the British colleagues.

Nonetheless, besides all these different models that are being used by the British colleagues, it was also highlighted that a large part of the interventions is based on experience and gut-feeling as well, and that the models are not always strictly followed.

Techniques to change behavior

Pertaining the techniques to change behavior, the UK armed forces make use of the weapons of influence from Cialdini. Additionally, the British colleagues often make use of someone from the target audience to influence the rest.

As to the non-verbal techniques, PPP is also used by the British. They apply it to engage with the target audience before the verbal communication takes place. Furthermore, "reciprocal accuracy" was highlighted as a powerful non-verbal technique. Nevertheless, there is no guideline when to use which technique, and they often base their decisions on common-sense, including experience and gut-feeling.

Theories to change behavior

One of the theories that has been used by the British colleagues is Metacognition. This is a way of finding out what people want from you, which can be useful when you are trying to apply the "reciprocal accuracy technique". Metacognition in a military context is especially useful in environments of complexity. Another theory that was discussed is Trauma Theory. In certain cultures, child trafficking is perceived to be something negative, while in other cultures it might be part of a tradition when there are too many children in a family. Trauma theory helps to discover the differences in such cultures whether it is a tradition or a betrayal. Understanding this difference will help in developing an intervention strategy according to the interviewees.

4.1.4 The United States of America

Behavioral change models

Unfortunately, the interview did not produce a clear view on the use of behavior change models in the US armed forces. However, the interviewee stated that they often act out of impulse instead of sticking to specific models to change behavior. According to him, armed forces should be acting less out of impulse, and this can be done by having a "strong narrative", as was also stated in the behavior change models from the UK armed forces.

Techniques to change behavior
In contrast to the behavior change models, the interviewee shared a lot of information on the techniques being used in the US armed forces. One of the techniques being used is the "repetitious delivery of messages". To start changing your mind, you have to be inundated with it for approximately 13 times with in-your-face kind of messaging first. So, repetitious delivery of messages may lead to a change in behavior eventually. Moreover, "telling the truth" is also being used as a technique, as progress will not be made when lies are being told. Furthermore, negotiation was seen as an effective way of changing behavior, especially when the current situation is already bad. However, even though the importance of negotiation is recognized, they still do not spend enough time on training negotiation techniques, according to the interviewee. Moreover, they make use of someone from a specific target audience to influence the rest of the target audience.

With regards to the non-verbal techniques to influence behavior, the carrot-and-the-stick approach seems to be often used. The Americans try to reinforce the good behavior by offering rewards (carrots), but often they get frustrated and punish them by introducing negative consequences of specific behavior (sticks). Based on this, coercion is sometimes used as a non-verbal technique. However, it was also argued that you should not be too forceful with coercion because you run the risk of alienating your audience.

Theories to change behavior
There were no behavioral change theories discussed from an US army perspective.

4.2 To what extent do these methods correspond with academic behavior change methods?

To answer this sub-question, Table 4 consisting of all the methods being used by the different international armed forces has been created. Within this table, three colors have been used: red, orange, and green. These three colors are used to be able to answer the second sub-question as explained in the methodology of this research. Green was chosen for the methods that are based on academic literature. Orange was used for the methods that contain academic elements, and red was chosen for the methods that are not based on academic literature at all. A detailed explanation of the academic background behind these methods can be found in the table in Appendix 10.

To give an answer to the second sub-question, a small table will be presented and discussed:

	Models	**Techniques**	**Theories**
Based on academic literature	8	11	7
Contains academic elements	2	5	0
Not based on academic literature at all	3	2	0

Table 5: Overview on the academic background of behavior change methods

When looking at Table 5 consisting of an overview on the academic methods of the behavior change methods being used by the different international armed forces, it can be concluded that most of the behavior change methods being used correspond with academic methods on behavior and behavior change. Besides that, a part of the methods has some academic elements, and only a small part is not based on an academic method. Thus, the methods that are being used are mostly based on an academic method. Nevertheless, it appeared from the

interviews that most of the behavior change interventions was based on experience and gut-feeling, which is not included in this sub-question.

Thus, the methods that are being used are mostly based on academic methods, but when developing and implementing behavior change interventions, academic methods are left aside, and interviewees recur to their gut-feeling and experience.

4.3 What are the similarities and differences between the behavior change intervention methods used by different international armed forces?

To give an answer to this sub-question, Table 4 from the second sub-question will be used again. With regards to the behavior change models, the only model being used by more than one country is the COM-B model, which is used by the Netherlands and UK armed forces. Besides that, every country uses different models. Thus, the different international armed forces have only one model in common, which is not much when looking at the 13 models being used in total.

As to the behavior change techniques, more similarities can be identified. The weapons of influence from Cialdini are being used by the Netherlands, German, and UK armed forces. Moreover, PPP is equally used by the armed forces from the Netherlands, Germany, and the UK. Also, using someone from the target audience to influence the behavior is used by more than one country, namely: the UK and the USA. The "working together with the target audience" from the Germans is closely related, but still slightly different. Thus, from the 18 techniques that were discussed in total, three of them are used by more than one country. The Netherlands, Germany, and the UK have two techniques in common. The USA only has a technique in common with the USA. So, the techniques being used by the US armed forces are not like the techniques from the German and Netherlands armed forces at all.

Finally, with regards to the behavior change theories, there are some similarities between Germany and the Netherlands. The KAB-theory and the Theory of Reasoned Action and Planned Behavior is being used by both countries. Besides that, no more similarities have been identified between the nations that were compared. Thus, from the seven theories, two of them are used by more than one country, while the other five are differing between countries.

In conclusion, the four nations that were compared are using to a great extent highly different methods to create and implement behavior change interventions. Only a small number of methods is shared by these countries. This might have several reasons, such as the culture of the military organization, the nature of the behavioral change operations, and the cultures of the countries they are operating in.

4.4 Which of the behavior change methods identified in literature are not yet used in a military context?

The fourth sub-question will be answered by comparing the models and techniques being used by different armed forces as stated in Table 4, with the table in Appendix 4, consisting of a clear overview of the behavioral change methods. Moreover, the behavior change theories will be compared with the theories being discussed in the Behavioral Drivers Model as stated in the table in Appendix 2.

4.4.1 The comparison with the models and techniques
The comparison has resulted in the following table:

Behavioral Change Models	Is the model used by armed forces?	Are the techniques from these models being used by armed forces?
Behavioral Dynamics Methodology (Emic Consulting, 2019)	Yes	Yes, one of the techniques has been used, namely: - Reward structures
BASIC Toolkit (OECD, 2019)	No	Yes, part of the techniques has been used, namely: - Use prompts - Make it social by connecting with social identities and creating a sense of community
Behavior Change Wheel (Michie et al., 2011)	Yes	Yes, part of the techniques has been used, namely: - Persuasion - Coercion
Behavioral Drivers Model (Petit, 2019)	Yes	No
MINDSPACE (Dolan et al., 2010)	No	No
EAST framework (Service et al., 2015)	No	Yes, part of the techniques has been used, namely: - Use the power of networks - Design rewards and sanctions for a maximum effect
CASI model (Rijksoverheid, 2020)	Yes	Yes, part of the techniques has been used, namely: - Social influence - Emotional strategies - Humor - Fluency and repetition - Making use of counterarguments
Nudging method (Ly et al., 2015)	No	No
Behavioral Insights Toolkit (*Behavioral Insights Toolkit*, 2016)	No	Yes, part of the techniques has been used, namely: - Reciprocity - Rewards and penalties
Weapons of Influence (Cialdini, 2007)	X	Yes, all of them have been used

Table 6: The comparison of the behavioral change models and techniques found in the literature with the models and techniques being used by international armed forces

With regards to the behavior change models, 4 out of 9 models have already been used in a military context. The following models have not been used in a military context yet: the BASIC toolkit, MINDSPACE, the EAST framework, the Nudging method, and the Behavioral Insights Toolkit. Thus, these are the models that have not yet been used in a military context as a complete model. However, some of the techniques mentioned in these models have been used in a military context already, maybe unconsciously.

Only from the Behavioral Drivers Model, MINDSPACE, and the nudging method, no techniques have been used. Thus, techniques from the BASIC toolkit, the EAST framework, and the Behavioral Insights Tool have been used in a military context already. Nonetheless, only Cialdini's weapons of influence techniques have been used all. From the other models, only part of the techniques has been used in a military context, as can be seen in Table 6.

4.4.2 The comparison with the theories

As mentioned above, the theories from the Behavioral Drivers Model (in Appendix 2) will be used to compare the academic theories with the theories being used in a military context.

Theories	Is it used?
Attribution theory	No
Behavioral economics theories	No
Communication for social change model	No
Community engagement models	No
Complex systems theory	No
Decision-theoretic model of collective behavior	No
Diffusion of innovations theory	No
Evolutionary theory of cognitive biases	No
Flower for sustained health model	No
Social theories of gender	No
Health belief model	No
Ideation theory	No
Integrated behavioral model	No
Media effects	No
Reasoned action and planned behavior model	Yes
Self-efficacy theory	No
Social learning theory and social cognitive theory	Yes
Socio-ecological model	No
Social marketing and community-based social marketing	No
Social movements	No
Social network theory	No
Social norms theory	Yes
Sociology of organizations	No
Theory of normative social behavior	No
Transtheoretical model	No

Table 7: Academic comparison with behavior change theories in a military context

Of the academic theories being highlighted in Table 7, only three can be matched with the theories of behavior and behavior change. The reason why the other theories cannot be matched is that these theories were originally not meant for behavioral change interventions in the military. So, it can be concluded that a large part of the theories of behavior and behavior change have not been used in a military context yet. Some of them might not be applicable, while others may be.

4.5 Which of the identified different methods would match the Netherlands armed forces when considering the behavioral preferences of the Netherlands armed forces as well as the citizens of the country in which they are on a mission?

Before answering the question, the behavioral preferences of the Netherlands armed forces as well as the preferences of the target audiences will be discussed. The behavioral preferences of the Netherlands will be divided into the interventions that are being carried out and the characteristics of the Dutch military culture.

Within the interviews and focus group, several preferences with regards to the use of intervention methods were highlighted. These will be discussed in this section.

Measuring the effects
The first preference that came out of the Dutch focus group was the importance of determining desired effects beforehand and knowing how you want to reach these effects. Currently, measuring these effects is the responsibility of the operational analysts, however this measuring does not always happen in practice. Moreover, in the interviews it was mentioned that determining the desired effects will help in deciding on an applicable behavior change method for that effect.

To create a better understanding on how this integration would look like, an example will be given. The example comes from the period when the Colombians were in war with the FARC guerrilla, and the FARC guerilla was hiding in the woods. The Colombian PsyOps team wanted to let the guerrilla fighters hand in their weapons and reintegrate in society. This was also called the DDR process: demobilization, disarmament, and reintegration. Thus, the measurement of effect was the number of weapons that were handed in after the intervention when compared to the year before. In the end, they measured 331 guerrillas who had demobilized because they were motivated because of this intervention. This was an increase of 30% when compared to the year before. So, because they had clear measurements of effects throughout the entire intervention process, they were able to show the results of the intervention. Without these measurements, they would not have been able to assess the results. This example shows that it is useful to integrate the use of effects throughout the entire process.

The British interviewees have also come to this conclusion, but they are already trying to integrate it in the process with the Chilcot Checklist (Ministry of Defence, 2017). This checklist was based on the Iraq Inquiry of the UK armed forces. It consists of ten questions that guide you through the entire intervention process. According to the British, this document can be extremely critical in the future to identify the effectiveness of interventions.

Combining experience with academic methods
Both in the focus group and in several interviews, it was agreed that a combination of using experience and academic methods is important. Often, they just act on their experience and do not use these methods. Yet, it is deemed necessary to make use of academic methods for the justification of specific actions in operations. This is because academic arguments have more weight than just referring to experience. In addition, it also helps to falsify certain choices that have been made in the earlier behavior change interventions. But besides using methods with an academic background, you need both the experience and the academic background to decide which methods are most applicable in a specific situation, as will be explained in the following section. Thus, in the current situation, the academic method is often discarded, but the Netherlands armed forces would prefer a good balance between experience and academic methods.
Choosing a method fitting to the situation

It was mentioned that there are so many different behavioral change methods out there, but that there is no consensus on which of them is the best. Each of these methods have their own advantages and disadvantages, and it is key that you know which method fits best within a specific situation.

As to the use of behavior change methods in general, the following two situations were highlighted: 1) when you are in the operation area with the troops on the ground, and when you do not have much time, it is useful to have concrete options for action. And 2) when you are stationed in the Netherlands and you have relatively a lot of time, it is useful to apply multiple methods. People who have the expertise and the time should try to optimize the use of methods. Also, when there is a lot of time pressure on the tactical level of a behavior change intervention, it might be useful to have simplistic methods that can be hold on to. It was argued that you should not make the situation more complex than it already is by making use of complex methods. And, sometimes a simplistic method can be as effective as a complex method, but this is again depending on the situation.

Other situations that were mentioned were about the phases of the conflict. When you are in the pre-conflict stage, some methods are very applicable, but when you get to the actual conflict stage, or the post-conflict stage, other methods might be more applicable. In short, it does not matter if you make use of complex or simplistic methods, as long as it matches with the situation of the behavior change intervention. However, when complex methods are used it is necessary to translate the complexity of the intervention into something practical that fits the military intervention process.

4.5.2 The behavioral preferences of the Netherlands armed forces and their organizational culture

Based on the focus group and the interviews with Dutch interviewees, different characteristics of the culture of the Dutch military were highlighted. This culture is also influencing the use of methods for behavior change interventions, as will be explained later.

Hierarchy

During the interviews, it became clear that within the military organization, people from lower in the hierarchy do not dare to speak up to someone who is higher in the hierarchy. This was also stated in academic literature. But people who are higher in the hierarchy do not always realize this. So, within the army, people don't dare to speak up to someone higher in the hierarchy, in contrast with the Dutch society.

Moreover, higher-level offices should order the lower levels to implement the behavior change methods during the interventions. However, there are not many experts in the field of behavioral influence at the higher level. Therefore, it is necessary to start lobbying to improve knowledge on the field of behavioral influence in the higher levels of the armed forces, for example in the Hague. This will be explained in more detail in the following section about the military organizational understanding of behavioral change interventions.

The lack of understanding about the benefits of behavioral change interventions

Currently, the military organization is not fully understanding what the benefits of behavior change interventions are. Because of this lack of understanding, the behavioral experts are called in often too late. Therefore, an increase in understanding of the military organization would be useful. However, this leads to a deadlock, because on the one hand, it is important to gain experience and achieve a lot of results which can help you to convince others in the

organization about the importance. On the other hand, if the other people in the organization will not let you go through the entire behavior change intervention process first, then you have nothing to show them, and nothing you can use to convince them. To solve this deadlock, it was concluded that the commander of a military intervention should allow people to discuss an operation and bring in new ideas. This goes against the idea of a strict hierarchy, but it would help to initiate a dialogue. And once this dialogue is initiated, an operational analyst or an information officer might move around more freely to convince others in the organization about the importance and the benefits of behavior change interventions.

A phenomenon in the military organization that reinforces the lack of understanding and knowledge of the benefits of behavior change interventions is the rotation of positions. The effects of a behavior change intervention often take a while before they get visible. For example, when you throw a bomb, you immediately see the effect. But behavior change interventions do not create such effects that soon. And when the effect is not visible within the deployment period, it is difficult to understand for the people in that deployment why behavior change interventions are important and helpful, since the fruits of such an approach will be earned by a successor. This lack of understanding also originates from the conservative nature of the military culture, as will be explained next.

The conservative nature of the military culture
Because the Dutch military culture can be characterized as conservative, they are less open to the integration of the complete behavioral change intervention process in the military planning process as a whole. The integration would require structural changes according to the participants of the focus group, and this is often not easy in a conservative organization.

Individualism vs collectivism
Moreover, in the interviews it was highlighted that the military culture is less individualistic than the Dutch civil culture. So, the military culture is more collectivistic, while the civil culture of the Netherlands tends to be rather individualistic. This is also in line with research that has been conducted on this topic (Soeters et al., 1997; Soeters et al., 2006). It was also mentioned that within the military, they consider themselves to be different than civilians. They do not have civil lives as military, they always have a military life. This is in line with the military identity as described in academic literature (Atuel & Castro, 2018). Within Atuel & Castro (2018), it was also argued that soldiers shift their individualistic outlook to a collectivistic orientation.

You should not focus too much on the individuals, but on the qualities of the group or organization. This was also highlighted by a participant of the focus group with the following statement: "You do not accomplish change with individuals, you accomplish that with the mass". Thus, the entire behavior change intervention process should be created together, preferably with multidisciplinary teams according to the participants.

4.5.3 The match of interventions with the culture of the target audience
During both the focus groups and the interviews, it was stated that you should take cultural differences into account in every step of the process of the behavior change intervention. To reinforce the importance of cultural understanding, some examples of situations where cultural differences were overlooked were provided. The first example is that a flyer that was handed out in Mali, and it consisted of a phrase like "nous sommes Hollandaise" with a Dutch flag. However, they could have thought it was the French flag and that it originated from

Hollande, the former president of France. Another example was that in villages in Afghanistan, the women from a village had to get their water from the river and that was dangerous sometimes. So, they made water wells in the villages, but it got sabotaged every week. And they did not know why it got sabotaged every time, but then they found out that the women sabotaged the water wells because their walk to the river was their only moment of privacy among other women. That was their social life. If they understood the culture better, this problem could have been avoided. The final example was when the Americans first went into Afghanistan, one of the biggest cultural mistakes was that they dropped meals to the Afghans in these little portable yellow containers. However, these boxes resembled Russian cluster bomb units, so the Afghans would not touch them. When they would have paid attention to the culture and the history of the Afghans, this could have been avoided. Before deciding on what the match of interventions with the culture of the target audience would look like, the characteristics of the culture of the target audience will be discussed.

Cultural characteristics of the target audience
Especially during the interviews, cultural characteristics on the following topics were highlighted: trust, relationship-building, in-group vs out-group, individualism vs collectivism, implicit vs explicit communication, and losing face. These characteristics were stated about the target audiences from we-cultures, as explained in the theoretical framework.

The importance of trust was highlighted in several interviews. This trust is more important in we-cultures than in I-cultures. As an example, it was mentioned that because they gained the trust of the target audience, they were able to get correct information from the target audience about al Qaeda. If they would not have gained this trust, they would not have shared this important information with them.

Besides the importance of trust, relationship-building was also considered to be very important on deployments in we-cultures. When the relationship with the target audience is good, it is possible to influence them. If you do not have this relationship with the target audience, they will not listen to you, and their behavior will not change. But you should also be careful with how you build this relationship. As an example of where it went wrong, the Dutch learned the Afghans to speak Dutch to improve the relationship, but the Afghans learned Dutch for a very smart reason. Namely, they were able to understand the conversations amongst the Dutch a lot better.

Moreover, the importance of in-groups and out-groups as characteristics of we-cultures were also highlighted as important. Belonging to the in-group of a target audience is seen as a prerequisite of influencing that target audience. As an example, when the Americans tried to influence a group in Afghanistan, they soon realized that when the information was coming from the tribal sheiks, it was treated as the absolute truth. And because this tribal sheikh was part of the in-group of the target audience, the behavior of the target audience could be changed. They could not have done this by themselves, because they were not part of their in-group then. Therefore, it is important to be part of the in-group of the target audience to influence them.

Another characteristic being discussed was about the difference between individualism in I-cultures and collectivism in we-cultures. As an example, it was mentioned that research has shown that there are more females that are joining Daesh now, but that is because the group around them expects them to. However, in I-cultures, this would not be happening that soon because we value our survival as an individual rather than family expectations or cultural expectations.

In addition, the difference between implicit communication in we-cultures and explicit communication in I-cultures was confirmed. It was mentioned that it is always difficult to talk to the local population if you do not fully understand their culture and their language. They often make use of interpreters, but it was also mentioned that you do not always know whether the interpreter is saying what you want him to say, or if he is translating things differently because of a different nature of communication. An interviewee from the UK armed forces gave an interesting example about when they did adapt to the implicit nature of communication in a behavior change operation in an African country. The person who created the behavior change intervention found a way of using African tokenism and symbolic representation, which are characteristics of implicit communication. They introduced a permanent fixture that would be placed on the uniform of the park rangers. This fixture showed that there is a long-lasting partnership between the UK armed forces and the park rangers. So, instead of giving them a written agreement, they gave them a symbolic representation of the partnership. It was also highlighted that in Africa, anything from color to symbolic representation, to the interpretation of different types of religion is very important to understand.

The final characteristic being discussed during the interviews was about the importance of not losing face in we-cultures which is conflicting with what we are used to in I-cultures. It was mentioned that when you have a tribe, and you know who is the eldest, before you can do anything, you talk to that person first and let him give you permission to talk to the others in the tribe. By doing this, the influencer respects the local hierarchy, and subsequently, prevents losing face of the eldest in the tribe. So, the influencers in general try to avoid losing face of persons in the target audience.

The explanation of the cultural characteristics of the target audiences confirms that the most common target audiences of behavioral change interventions can be described as we-cultures, while the Dutch culture can be described as an I-culture. As already mentioned earlier, it is important to use a method which is applicable to the culture of the target audience. This will be discussed now.

The behavior change method in combination with the culture of the target audience
Almost all behavioral change methods have been first applied in the western world. One of the interviewees mentioned that around 95% of all the theories, models and models have been tested on American first year college students, and this can lead to difficulties. As an example, one of the British interviewees mentioned that COM-B is a very westernized model, because it talks about motivations and opportunities. Those motivations and opportunities in are quite easy to identify for people in the west, but not for people in we-cultures. This can cause difficulties in the implementation of a western method elsewhere in the world.

Within the focus group it was argued that it is not a big problem that these methods are introduced in a western world, because the predictive values of the relationships within such methods will be adapted to the culture. It was argued that you must figure out what the predictive values of a specific culture are, and subsequently, you combine this with the creation and implementation of the behavior change intervention strategy. Moreover, multidisciplinary teams help to collect these predictive values of a specific culture.

The cultural fit between the target audience and the influencer
Besides the discussion whether you should adapt the behavior change method to the culture of the target audience or not, it was also argued that there should be a good cultural fit between the target audience and the influencer as it enhances success in the behavior change interventions.

Even though it is recognized that the cultural fit between the target audience and the influencer is important, it is not always the case in practice. As an example, when a colleague got deployed to Kiev, he spoke fluent Russian and Ukrainian. There was a perfect fit between the influencer and the target audience, which also helped in the behavior change interventions. However, because of the rotation in the army, he had to leave again after five years. Someone else replaced him, but that person did not speak any Russian or Ukrainian at all, so, the good cultural fit had vanished.

4.5.4 An answer to the sub-question:
Based on the results presented above, it can be concluded that there is not one specific method which matches best with the interventions of the Netherlands armed forces, their behavioral preferences, as well as the cultural preferences of the countries where these interventions are located. This is because it is dependent on the local situation which method would lead to the desired effects. The situation ranges between different timeframes, different stages of conflicts, and different cultures of the target audiences according to the participants of the focus group. So, it is impossible to choose one method, because different methods match better in different situations. Furthermore, there should be both complex and simplistic methods. However, when the methods are complex, it is necessary to translate this complexity into something practical that fits the military intervention process. Besides that, there are some preferences regarding the behavior change interventions in general. First, it is necessary to measure effects throughout the entire behavior change operation. Besides that, it is extremely important to have a good combination of experience and academic methods within such behavior change interventions. You cannot fully integrate the entire behavior change intervention process just with academic methods, nor is it feasible to do it only based on experience.

And even though this all seems reasonable and achievable, the military culture of the Netherlands armed forces can be hindering this integration. The strict hierarchy of the military ensures that the higher level of the organization should give the lower level of the organization to fully integrate the behavior change intervention process. Nonetheless, there are not many behavioral experts in these higher levels, nor is there sufficient knowledge on this field. This makes it difficult to get recognition and support from above. And the organizational understanding is the second obstacle for the integration, because there are still many people in the organization who do not understand the importance of behavioral change interventions. This is a problem that needs to be bridged before the entire behavior change intervention process can be integrated in the organization. Moreover, because of the conservative nature of the military culture, the organization is less open to the integration of the behavior change intervention process. Integration would require structural changes, and this is often not very welcome in conservative organizations. Finally, it was mentioned that such change is not accomplished with individuals, but with the group as a whole. The relatively collectivistic nature of the military culture is beneficial in this case.

With regards to the culture of the target audience, it can be concluded that the target audiences of the behavior change interventions usually have a culture which is characterized

as a we-culture. This indicates that there is a big difference between the country who is doing the behavior change intervention and the target audience. Therefore, it is necessary to adapt the behavior change methods, which are usually initiated and tested in I-cultures, towards a fit with the target audience. This is done by changing the relative values of the methods, so they are in line with the cultural values of we-cultures. Moreover, it is argued that it is important to optimize the cultural fit between the influencer and the target audience, which is often done in the Netherlands by communicating via an interpreter. However, there are still many situations where this fit is not optimal.

4.6 Bottlenecks

During the analysis of the interviews and the focus group, it became clear that there are several problems that are hindering the effectiveness of behavior change interventions currently. Before the Netherlands armed forces can make their behavior change interventions more effective, these problems need to be realized, and if possible, they should be overcome. These problems will now be discussed.

Currently, there is a lack of understanding within the military organization on the importance of behavior change interventions. Because of this, the behavior change intervention process is not fully integrated in the organization. Within the focus group, it was argued that because of the strict hierarchy in the military organization, it is necessary to have support from the higher level. This means that once the higher level in the military hierarchy is convinced of the benefits, they can turn on the others in the organization as well. To convince the higher level, it is important to gain experience and achieve a lot of results, but as long as the full intervention process is not integrated in the organization it is difficult to achieve these results.

This problem is even worsened because of the rotation of positions in the military. The effects of a behavior change intervention are often not visible right away. And when the effect is not visible within the deployment period, for example, it is difficult to understand for the people in that deployment why behavior change interventions are important and helpful. Moreover, this lack of understanding is also coming from the conservative nature of the military culture. The Dutch military is often less open to change, and because the integration of the full behavior change intervention process would require structural changes, this is difficult to achieve.

Another problem that was argued during the interviews and the focus group involved the lack of coherence between the behavior change interventions and the military planning process. It is necessary to translate the behavior change interventions in such a way so that they fit as much as possible within the military planning process. This lack of coherence is also because there is no clear structure of all the possible methods that can be used in the different phases of the behavior change intervention process. Currently, there is no consensus on what the best methods are for the different scenarios that might be encountered, which is hindering with regards to the integration and effectiveness of behavioral change interventions.

So, these are the problems that should be dealt with before the behavior change interventions can become more effective in practice.

5. Discussion

5.1 Summary and discussion of the results

Based on the results from the previous chapter, this section will summarize and discuss these results. It will be divided in the following three sub-sections: the use of academic methods, the obstacles for the effectiveness of behavior change interventions, and taking the cultures of target audiences into account.

5.1.1 The use of academic methods

Overall, it can be concluded that the behavior change interventions are partly based on academic methods, but most of the behavior change intervention process is performed based on experience and gut-feeling. The results on the first four sub-questions showed that most of the methods being used is based on academic background. But it also showed that there are still a lot of methods in the academic world that are not yet used. And even though it was shown that most of the methods being used is based on academic methods, more often than not they do not make use of methods but of experience and gut-feeling instead. Nevertheless, the importance of the application of academic methods was stressed, and especially a balanced approach combining experience and academics is preferred. Moreover, academic literature has also highlighted that behavioral change interventions based on academic methods are often more effective (Francis et al., 2009; Glanz & Bishop, 2010).

According to the participants of the study, academic methods should be included more to reach a balance between experience and academic methods. When this balance is reached, it is assumed to contribute to overcoming the bottlenecks as will be elaborated on in section 5.1.2. Besides reaching the balance, it is also very important to translate the academic insights into practical insights which are useable by everyone in the military organization.

5.1.2 The obstacles for the effectiveness of behavior change interventions

Nonetheless, before this balance, and thus the match, can be reached this study has shown that there are several problems that cause difficulties which must be overcome first. Currently, the effectiveness of the behavioral change interventions and corresponding methods is hampered by the culture and structure of the Netherlands armed forces, i.e., the hierarchy, the organizational understanding, and the conservative nature of the military culture as explained before. The bottlenecks that should be overcome first will be stated shortly:

- Because of the lack of understanding of the importance of behavior change interventions in military operations, the intervention process is not fully integrated in the organization.
- Because of the hierarchical nature of the military organization, it is necessary that officers higher in the organization are convinced of the importance of behavior change interventions, and this is currently not the case.
- Because of rotation in the army, the effects of a behavior change intervention are often not visible within the deployment period.
- There is a lack of coherence between the behavior change intervention process and the military planning process.

- There is no clear overview on all the useful behavioral change methods, which makes it difficult to understand the possibilities in specific situations.

Overcoming these bottlenecks would mean that the behavior change process should be understood and integrated within the organization, meaning that it should fit with the (cultural) behavioral preferences. For example, every phase of the behavior change intervention process should be clearly developed and explained in a booklet.

The results of this part of research were rather unexpected. It became clear that many new things can be learned from all the academic methods and the methods being used by other international armed forces, but before they can implement this new information, several obstacles must be removed.

5.1.3 Taking the cultures of target audiences into account

Moreover, the cultural preferences of the target audiences of the countries on which they are in a mission should be considered as well. The results have shown that the most common target audiences can be characterized as we-cultures, and the characteristics of we-cultures were discussed extensively in the interviews. However, there were some small differences between the identified cultural differences in the interviews compared to the characteristics of the we-cultures from Eppink (1981). This was for example the case with trust and relationship-building. Within the interviews, these were highlighted as two separate cultural differences, yet, in we-cultures, trust is seen as a consequence of relationship-building. This example indicates that the interviewees recognize the differences between we-cultures and I-cultures but are not specifically familiar with the differences as stated in Eppink (1981). Another interesting point was the fact that they make use of people from the in-group to influence the others of that group, also, target audience. Yet, it is often overlooked that you still need to gain the trust of and build the relationship with that person who does belong to the in-group, as stated in academic literature. Therefore, this idea of using someone from the in-group of the target audience to influence the others of that target audience might therefore not always work.

Still, the characteristics of we-cultures should be considered when developing the behavioral change intervention process, which in turn will help to get the best match between the methods and the culture of the target audience. Unfortunately, all behavioral change methods being discussed in this research have been initiated and tested in the western world, and the differences in culture are not often included in these methods. To still create a right fit between the method and the target audience, the methods should be adapted to the predictive values of the culture of the target audience.

Besides the importance of matching the methods with the culture of the target audience, it was also argued that there should be a cultural fit between the target audience and the influencer. It is extremely important in face-to-face communication, more so than with mass communication. Nevertheless, this is still not always the case in practice, which is partly because of the obliged rotation.

In conclusion, the differences between we-cultures and I-cultures as described in the academic literature have been highlighted by the participants of this research. However, these differences should be considered in every phase of the behavior change intervention process. Continually including this in every phase would mean that the differences should be stated somewhere clearly, which is currently not the case.

5.2 Contributions to academic literature

This research contributes to the growth of academic knowledge in several ways. First, it contributes to the existing literature on behavior change methods by elaborating on the implementation of cross-cultural differences. The current behavioral change methods from the existing literature have been introduced in the Western world, and often do not include the cross-cultural perspective (Michie et al., 2013). Yet, research has shown that these cross-cultural differences are extremely important when behavior change interventions are carried out in an international environment (De Ridder et al., 2010; Georgieva & Marinov, 2017). Therefore, this study adds an additional layer to these methods by including the importance of differences between we-cultures and I-cultures.

Another contribution is that the problems with the integration of such behavior change methods are highlighted in this research. Most of the studies that go into depth on the use of behavior change theories only discuss the academic background and goals of the research (Michie et al., 2005; Petit, 2019). With regards to the behavior change methods discussed in this research, they discuss what the method entails and how it works (*Behavioral Insights Toolkit*, 2016; Cialdini, 2007; Dolan et al., 2010; Emic Consulting, 2019; Ly et al., 2015; Michie et al., 2011; OECD, 2019; Petit, 2019; Rijksoverheid, 2020; Service et al., 2015). However, this research also includes the difficulties with implementing such behavior change methods, which is something that is not done in these documents. These difficulties can be used for other studies that aim to expand further on these behavioral change methods.

In short, the combination of the existing literature with the additional cross-cultural layer, and the discussion of difficulties that might arise in the implementation process of behavioral change methods would contribute greatly to the international field of behavior change interventions.

Moreover, a lot of the theories of behavior and behavior change are focused on how human behavior should be analyzed (Cane et al., 2012; Petit, 2019), yet many of these academic theories do not entail how these theories can be used to change the behavior. This also results in difficulties with implementing these theories in practice, as was also highlighted in this study. This study therefore contributes to the academic literature by showing the importance of extending the theories of behavior and behavior change with implementation prescriptions.

Also, the research showed that there are a lot of behavioral change methods that are not yet being used in a military context in the academic literature at all. Many of the behavioral change methods have been introduced in health care or in social sciences (Cane et al., 2012), but there is barely any academic article on the use of behavioral change methods in the military context. Yet, the field of behavioral change has grown tremendously in the past few decades (Bergier & Faucher, 2017b; Lehto & Henselmann, 2020). Therefore, this study adds to academic literature by focusing on the military context, which is underexposed in the academic field.

5.3 Contributions to practice

Besides contributing to academic literature, this research also contributes to practice. All the methods being discussed in this research can be used as an overview when deciding on a specific behavior change method in practice. Thus, when a behavior change intervention is being planned, this research can be used as a guide for all the different methods. This can be

both within the military context as well as outside the military context. Moreover, this research creates awareness on the cultural differences when intervening in an international environment, which is useful for both military and non-military practice as well.

Moreover, since this research was conducted within a military environment, it is especially interesting with regards to contributions for that environment. It includes behavior change methods that have not been introduced in the military context yet, and these additional methods broaden the view of the people within the military. New methods can be implemented in the military context because of this research. The practical contributions can also be expanded with recommendations, as will be discussed in the next section.

5.3.1 Specific recommendations

Next to increasing the practical knowledge for both the military and non-military context, recommendations have been formed. Based on the problems that were highlighted in section 5.1, recommendations will be stated.

5.3.1.1 The use of academic methods

The use of academic methods in the behavior change intervention process is still lacking, resulting in actions based on experience and gut-feeling. This is partly coming from the problem that there is no consensus about the best academic behavior change method, and partly because of the lack of translation from academic methods into practice. With regards to the creation of a clear consensus, it would be beneficial to create a decision tree where the best academic method for a specific situation will be stated. For the translation from academic methods to practice, it is beneficial to make use of practical examples. These recommendations are explained in more detail in Appendix 11A.

5.3.1.2 The obstacles for the effectiveness of behavior change interventions

The cultural characteristics of the Dutch military are hindering the effectiveness of the behavior change intervention process. These problems can be summarized into the lack of integration and coherence between the behavior change intervention process in the complete military planning process, the lack of visible effects in one deployment period, and the lack of a clear overview of all the suitable behavioral change methods. It is recommended to increase the organizational understanding of behavior change interventions, and the behavior change intervention process should be institutionalized. A more detailed explanation of these implications can be found in Appendix 11B.

5.3.1.3 Taking the cultures of the target audiences into account

The cultural differences are quite often overlooked as they are not integrated in the (academic) behavior change methods. This integration is the responsibility of the people designing and implementing the behavior change process, but when these persons do not understand the importance of including cross-cultural differences, it is often overlooked. Therefore, it is advised to create multidisciplinary teams who go through the behavioral change intervention process. Within such multidisciplinary teams, members from different levels and different roles in the military organization. This would optimize the different perspectives and more options will be thought of compared to non-multidisciplinary teams. These teams should be involved in both the different phases of the behavioral change intervention process, as well as the military planning process in general. Such multidisciplinary teams would be able to collect more information on the predictive values of different cultures

when considering the methods. And, so, the cultural match with the culture of the target audience is more likely to be realized.

5.4 Limitations and future research

Next to the contributions, this research also has its limitations. The main limitations are related to the sample of the interviews and focus group being conducted. From the German and US armed forces, only one interviewee has been included in the sample, and this reduces the reliability of the conclusions of these countries (Bryman, 2008). When at least one additional interviewee of both countries would have been included, other conclusions might have come out. In addition, from the nine interviewees, only two are non-commissioned officers, while the other seven are commissioned officers. A more even distribution might have resulted in a more representative view of the entire international military organizations, as stated in Yin (2011). Nonetheless, the combination of interviewees resulted in an international line which is generally well represented. Based on this limitation, a recommendation for future research is the repetition of this research with more and other interviewees. This would help to create a more reliable and valid result. Yet, it would be helpful if this research is conducted within the military as it would allow them to make use of the full dataset of this research as well. This is not possible outside the military organization because of classified information in the transcripts.

Moreover, the sampling size of the interviewees in general is limited as well. Yet, since the interviewees were asked about strategic and tactical explicit information, this is less important. Thus, the results of these interviews can still be used. Next to the sampling size of the interviewees, the sampling size of the focus group was also limited. Just one focus group was being held, while Morgan (1998b) states that you should have 3-5 focus groups. Using one focus group is considered to be risky, but it was also stated that more than one is often expensive and time consuming (Morgan, 1998b). Due to the time restrictions of this study, it was also not possible to have 3-5 focus groups. Luckily the focus group and interviews complemented each other, which made the sampling problems less of an issue.

Another limitation of this research is that it is not fully transparent. One of the ways of building trustworthiness and credibility into qualitative research is by being transparent. This is done by describing and documenting the research procedures so that other people can review and try to understand them. All data needs to be available for inspection to be transparent (Yin, 2011). However, this is not possible with this research as part of the data contains classified information. Within the interviews and the focus group, some classified information has been shared, which is why the research cannot be fully transparent. Yet, it can be reviewed and expanded further within the Netherlands armed forces as they are allowed to read these classified sections.

Moreover, this research is limited within the part of the interviews by the case that these interviews have been conducted, interpreted, and analyzed by just one researcher. Since it is a qualitative study, the results of the interviews might be biased because of the researcher's subjectivity. This could have been improved by including cross-checks within the coding from colleagues (Schneider et al., 2017). However, due to time restrictions and limited resources, it was not possible to do this. As this was already happening in the first phase of this research, this was avoided as much as possible in the second phase of the research: the focus group. During the focus group, a note taker was there to take the notes, and this resulted in an additional perspective on the inputs in that focus group.

Next to these limitations and idea for future research, other ideas for future research have been thought of as well. One of them is the further exploration of the implementation problems within military organizations or organizations in general. This research has shown that there are still many problems with the implementation and integration of behavior change methods during interventions. For future research it would be useful to discover more of these problems and make an overview of difficulties in the implementation of behavior change methods during interventions.

Finally, it would be useful to conduct the same research in a few years again. This will show whether the behavior change methods are different then. One of the participants in the focus group highlighted that you should always grow together with academics, and that you should always try to learn and implement the latest academic insights. As this is stated as important, it would be interesting to find out whether this is happening in practice as well. It would also show whether the current bottlenecks in the military organization are overcome or not.

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Appendices

Appendix 1: The refined theoretical domains framework from Cane et al. (2012)

Theoretical Domains	Constructs
1. **Knowledge** An awareness of the existence of something	- Knowledge (including knowledge of condition / scientific rationale) - Procedural knowledge - Knowledge of task environment
2. **Skills** An ability or proficiency acquired through practice	- Skills - Skills development - Competence - Ability - Interpersonal skills - Practice - Skills assessment
3. **Social/ professional role and identity** A coherent set of behaviors displayed personal qualities of an individual in a social or work setting	- Professional identity - Professional role - Social identity - Identity - Professional boundaries - Professional confidence - Group identity - Leadership - Organizational commitment
4. **Beliefs about capabilities** Acceptance of the truth, reality, or validity about an ability, talent, or facility that a person can put into constructive use	- Self-confidence - Perceived competence - Self-efficacy - Perceived behavioral control - Beliefs - Self-esteem - Empowerment - Professional confidence
5. **Optimism** The confidence that things will happen for the best or that desired goals will be attained	- Optimism - Pessimism - Unrealistic optimism - Identity
6. **Beliefs about consequences** Acceptance of the truth, reality, or validity about outcomes of a behavior in a given situation	- Beliefs - Outcome expectancies - Characteristic of outcome expectancies - Anticipated regret - Consequents
7. **Reinforcement** Increasing the profitability of a response by arranging a dependent relationship, or contingency, between the response and a given stimulus	- Rewards - Incentives - Punishment - Consequents - Reinforcement - Contingencies - Sanctions
8. **Intentions**	- Stability of intentions - Stages of change model

A conscious decision to perform a behavior or a resolve to act in a certain way	- Transtheoretical model and stages of change
9. Goals Mental representations of outcomes or end states that an individual wants to achieve.	- Goals (distal/proximal) - Goal priority - Goal/ target setting - Goals (autonomous/ controlled) - Action planning - Implementation intention
10. Memory, attention and decision processes The ability to retain information, focus selectively on aspects of the environment and choose between two or more alternatives.	- Memory - Attention - Attention control - Decision making - Cognitive overload/ tiredness
11. Environmental context and resources Any circumstance of a person's situation or environment that discourages or encourages the development of skills and abilities, independence, social competence, and adaptive behavior.	- Environmental stressors - Resources/ material resources - Organizational culture/ climate - Salient events/ critical incidents - Person x environment interaction - Barriers and facilitators
12. Social influences Those interpersonal processes that can cause individuals to change their thoughts, feelings, or behaviors.	- Social pressure - Social norms - Group conformity - Social comparisons - Group norms - Social support - Power - Intergroup conflict - Alienation - Group identity - Modelling
13. Emotion A complex reaction pattern, involving experiential, behavioral and psychological elements, by which the individual attempts to deal with a personally significant matter or event.	- Fear - Anxiety - Affect - Stress - Depression - Positive/negative affect - Burn-out
14. Behavioral regulation Anything aimed at managing or changing objectively observed or measured actions	- Self-monitoring - Breaking habit - Action planning

	Theories	Subcategories of the theories	Core ideas / major assumptions / takeaways
1	Attribution theory	Perception of locus of control Controllability Stability	The human mind is inclined to make attributions about what causes an event. Attribution improves the general understanding of a behavior: what causes it; what prevents it.
2	Behavioral economics theories	-	People make choices based on the potential value of gains and losses, and these gains and losses are evaluated using heuristics and biases.
3	Communication for social change model	Collective communication Cooperation	A community undergoes dialogues and acts collectively; members learn to cooperate more effectively for future problem solving. Each successful dialogue and collective action process will enhance the community's capacity to resolve other communal concerns.
4	Community engagement models	Capacity Inclusion Resources Community organization Listening and learning Effective participation	Engagement should be built and maintained by partners, the 'governance system', and the community. For behavior change to result from community engagement, there needs to be a strong sense of community among these joining the movements.
5	Complex systems theory	-	The complexity of a system and the multicausality, multidimensionality and interdependency of cognitive, social, and structural phenomena should be embraced.
6	Decision-theoretic model of collective behavior	Factual beliefs Personal normative beliefs Empirical expectations Normative expectations Conditional preferences	The theory highlights the criticality of individuals' beliefs and expectations regarding a practice, which might or might not be sufficient to drive behavior. The motivational profile for each collective behavior can vary and can include strong social expectations.
7	Diffusion of innovations theory	-	Early adopters will often be positive deviants and innovations will constitute emerging alternatives spoken about in the communication space, which can be a starting point to influence change of most people
8	Evolutionary theory of cognitive biases	-	When a bias exists, it can prevent a person from accepting a need to change the current practice and even make her reject others' attempts to create change. Finding a way to shift the situation away from one that triggers the cognitive bias may prevent the individual from using the shortcut and make her question if such a way of thinking is still valid for the current context
9	Flower for sustained health model	Power relations Individual factors Institutional structures Resources	Power elements should be highlighted in various components of social and behavior change, from community dynamics to social

		Social factors Gender dynamics	norms. The compliance with these norms is driven by a variety of reasons.
10	Social theories of gender	Gender, masculinity and femininity Gender norms Gender socialization	Gender, masculinity, and femininity - Gender should be a central factor to any behavioral change model. Gender norms - By applying a gender transformative lens, the role of power in social relations, the importance of childhood socialization, how gender-related norms become embedded in institutions, and how gender norms are produced and reproduced through daily interactions should be considered. Gender socialization - The individual background of a person will have a significant influence on how gender is applied to her/his decisions and behaviors. Responsibly transforming the preconceptions rooted in experience and exposure is a key aspect of change
11	Health belief model	Perceived susceptibility and severity Health motivation Perceived benefits and barriers Knowledge and efficacy	Self-efficacy, interest and cognitive biases can strongly influence an individual's perception of the seriousness of a problem, her susceptibility, and the pros and cons of adapting a more protective behavior
12	Ideation theory	Cognitive elements Emotional elements Social and structural environment	It depicts the critical interplay between cognitive elements, emotional elements, and the social and structural environment, through a sequence in which these various elements can be influenced by communications and lead to intent of behaviors.
13	Integrated behavioral model	Attitude Perceived norms Personal agency Possessing the knowledge and skills to perform a behavior Salience of the behavior Environmental constraints Habits	The intent to perform a behavior depends on attitude, social norms, self-efficacy, governing entities, habits, structural barriers, personal characteristics, and salience.
14	Media effects	Agenda-setting Priming Framing	Media effects influence behaviors because of the way a human cognition works. Agenda setting, priming, and framing are important in determining the adoption of specific behaviors. People's exposure to these effects is a key driver
15	Reasoned action and planned behavior model	Attitude Subjective norm Perceived behavioral control Intention	It encompasses the cognitive roots of behavior. It defines attitude as the centerpiece of human behaviors. Personal beliefs affect attitudes toward specific

			behaviors. These attitudes in turn influence intentions to carry out such behaviors.
16	Self-efficacy theory	Performance accomplishment Vicarious experience Social persuasion Physiological and emotional states	Self-efficacy is assumed to hold the key to a person's perception of what can and cannot be done, changes to one's self-efficacy level can induce changes to intention and, thus, action.
17	Social learning theory and social cognitive theory	Behavioral factors - Outcome expectations Personal/cognitive factors - Knowledge, goal, self-efficacy Environmental factors - Social support/ barriers	Both social and cognitive realms are at the interplay of the adoption of behaviors and their enforcement. Importantly, socialization processes play a central role in setting individual behavioral parameters. And individual behavioral change can be achieved by altering the physical and social environments
18	Socio-ecological model	Layers of factors: intrapersonal, inter-personal, institutional, community, societal	It highlights the interconnectedness between the individual and collective levels, and importantly puts forward the influence on behaviors coming from the policy sphere, the access to services and institutions, and the various concentric organizational levels trying to influence what people do.
19	Social marketing and community-based social marketing	Selecting, identifying, strategizing, testing, and evaluating	Personal interests provide inputs for the customization of marketing strategies, and effective communication sets the foundation for testing and evaluation.
20	Social movements	-	Social movements are important drivers, which can be leveraged to trigger change or mobilize. Political, economic and social contexts embedded in the community, governing system and structural factors also highlight important background elements for social movements to occur and expand
21	Social network theory	Communication environment Community dynamics Social influences	Social networks can influence behavior, even when ties are weak, or the network relation is distant.
22	Social norms theory	Act against self-interest Other's beliefs Changing norms	Human beings can act against their narrow self-interest because of their beliefs about others and others' beliefs about them. Changing norms can lead to changing behavior in both positive and negative ways.
23	Sociology of organizations	-	Is particularly relevant for the analysis of group processes, where individual interests and power plays are at the heart of choices and interactions. The theory also highlights the crucial role of institutions and governance systems in influencing individual behaviors
24	Theory of normative social behavior	Injunctive norms Outcome expectations Group identity	Group identity is an important reason for people to comply what is perceived as the normal behavior, showing that norms and social influence are enforced by a plurality of mechanisms.
25	Transtheoretical model	Stages of change Agency Social influence	The transtheoretical model theorizes that an individual goes through different processes to move from one stage of behavior change to

			another until they reach a desired outcome. Social influence is important in nudging an individual to recognize the need for a change, encouraging actions to change, and building a supportive environment to maintain the desired behavior.

Appendix 3: The COM-system of the BCW mapped into the TDF domains (Cane et al., 2012; Direito et al., 2017)

COM component		TDF domain
Capability	Psychological	Knowledge
		Skills
		Memory, attention, and decision processes
		Behavioral regulation
	Physical	Skills
Opportunity	Social	Social influences
	Physical	Environmental context and resources
Motivation	Reflective	Social / professional role and identity
		Beliefs about capabilities
		Optimism
		Beliefs about consequences
		Intentions
		Goals
	Automatic	Social / professional role and identity
		Optimism
		Reinforcement
		Emotion

Appendix 4: A clear overview of the behavioral change methods

Methods	Phase 1	Phase 2	Techniques Phase 2
Behavioral Dynamics Methodology	Strategic Campaign Planning (SCP): Descriptive Parameters Actor and Audience Analysis (AAA): Prognostic Parameters & Transformative Parameters	Campaign Intervention Strategy (CIS): Transformative Parameters Implementation (IMP) Monitoring, Evaluation, and Learning (MEL)	Transformative Parameters: - Ability - Attitudes - Binary opposition - Common enemies - Decision path - Expectancy - Fears - Filters - Initiating sets - Message appeals - Noise - Reward structures - Rituals - Source credibility

BASIC Toolkit	B A	S (I C)	Strategies (S):
			o Attention:
			  - Timing and placement
			  - Make it relevant for one's state of mind
			  - Make it salient
			  - Send reminders
			  - Use prompts
			o Belief formation:
			  - Guide the search
			  - Make it intuitive
			  - Support judgment
			o Choice:
			  - Considering motives, creating perspectives, and triggering emotions
			  - Frame prospects
			  - Make it social by connecting with social identities and creating a sense of community
			o Determination:
			  - Working with friction
			  - Providing plans and feedback
			  - Committing devices
			  - Leveraging social norms

Behavior Change Wheel	Inner circle: COM-B model	Middle circle: intervention functions	The nine intervention functions: - Education - Persuasion - Incentivization - Coercion - Training - Restriction - Environmental restructuring - Modelling - Enablement
Behavioral Drivers Model	Level 1 drivers: - Psychological - Sociological	Level 2 drivers with the different techniques	- Cognitive biases - Interest - Attitude

	- Environmental		- Self-efficacy - Limited rationality - Social influence - Community dynamic - Meta-norms - Community dynamic - Meta-norms - Communication environment - Emerging alternatives - Governing entities - Structural barriers - Intent and action - Personal characteristics
MINDSPACE framework	-	Influences on behavior: M I N D S P A C E	- Messenger - Incentives - Norms - Defaults - Salience - Priming - Affect - Commitments - Ego
EAST framework	-	E A S T	Easy (make it Easy) - Harness the power of defaults - Reduce the 'hassle factor' of taking up a service - Simplify messages Attractive (make it Attractive) - Attract attention - Design rewards and sanctions for a maximum effect Social (make it Social) - Show that most people perform the desired behavior - Use the power of networks - Encourage people to make a commitment to others Timely (make it Timely) - Prompt people when they are likely to be most receptive - Consider the immediate costs and benefits - Help people plan their response to events
CASI-method	-	Based on emotions, habits, and other people in the environment	Unintended influence on behavior - Priming - Nudging - Modeling - Attractiveness and reliability - Fluency and repetition - Humor Influence on risk perception - Message strategies (framing and communication of risks)

			- Emotional strategies (emphasis on anxiety, disgust, regret, guilt, shame, and pride)
			Social influence
			Resistance against influence
			   - Avoiding resistance
			   - Making use of counterarguments
			   - Self-reinforcement

Nudging method	Map the context	Select the nudge Identify the levers for nudging Experiment and iterate	-

Behavioral Insights Tool	-	Behavioral influences can be divided into individual, social, and environmental and design.	Individual
			   - Cognitive lead
			   - Self-image
			   - Fast vs slow processing
			   - Heuristics and biases
			   - Intention and commitment
			   - Rewards and penalties
			   - Time distortion
			Social
			   - Messenger effects
			   - Social norms
			   - Reciprocity
			Environmental and design
			   - Choice architecture
			   - Feedback and reminders
			   - Framing and priming
			   - Salience
			   - Simplification
			   - Timing

Cialdini's Weapons of Influence (only consisting of techniques)	-		- Social proof
			   - Reciprocity
			   - Authority
			   - Liking
			   - Commitment & consistency
			   - Scarcity
			   - Unity

Appendix 5: Overview of the methodology

	Literature review	Interviews with experts	Focus group with experts	Results of other sub-questions
Sub-question 1		x		
Sub-question 2	x	x		x[7]
Sub-question 3		x		x[8]
Sub-question 4	x	x		x[9]
Sub-question 5		x	x	x[10]
Main research question	x	x	x	x[11]

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[7] The results from sub-question 1 were used for sub-question 2

[8] The results from sub-questions 1 and 2 were used for sub-question 3

[9] The results from sub-questions 1, 2, and 3 were used for sub-question 4

[10] The results from all previous sub-questions were used for sub-question 5

[11] The results from all the sub-questions were combined to give an answer to answer the research question. In addition, identified bottlenecks were used in the answer to the research question as well.

Introduction

First of all, thank you for participating in this interview. My name is Laurette van der Woning and I am currently conducting research for my Master Thesis in International Management & Consultancy at the University of Twente in the Netherlands. The research is in collaboration with the Netherlands armed forces and is focused on the implementation of behavior change interventions. In my research, it becomes clear that there are many different ways/methods to influence the behavior of the target audience during military operations. I am trying to discover the differences between these methods from different international armed forces. Therefore, the focus of this interview will be on the methods that you use to change the behavior of the target population in military operations.

Your input is very valuable for my research, so I really appreciate you taking time to talk with me. It is very helpful to speak to someone with your expertise and knowledge. The interview will take no more than 1.5 hours, depending on how much we talk. Results from this interview will be used in my research and will be shared with the Netherlands armed forces. Besides that, only my supervisors from the university will see the transcripts and results.

The interview will be semi-structured, meaning that I have come up with some questions beforehand but that we don't have to stick to a strict structure. I would like the conversation to flow naturally and get as much information as you are willing to share.

Finally, I would like to ask if I can record the interview? These recordings will not be shared with anyone, but it will help me to fully focus on what you are saying without being disturbed by making notes. You have my guarantee that I will delete the recording when I finish the research.

Questions that can be seen as a guideline for the interview:

1. Before going into specific subjects, I am going to ask you some questions about you.
   a. Short introduction about yourself
   b. What is your specific function/role?
   c. How long have you been in this function and what did you do before this function?
   d. What is the country you work for now?
   e. Have you been deployed / sent to other countries? If yes, which?

Now, I would like to focus on your experience in the field of behavioral influence.

2. How long have you been active in the field of behavioral influence?
   a. Have you accomplished successful behavioral influence operations?
      i. Can you give an example of such an operation?
   b. What do you consider to be the criteria of a successful operation?
   c. When do you consider a behavioral influence operation to be less successful?
      i. Can you give an example of an operation that was less successful?

Shortly explain the difference between the TAA and the influence of behavior

3. Each country uses specific methods / techniques to influence behavior. Could you describe your countries' methods?
    a. Do you make use of one method / technique, or more?
        i. Which is your favorite and why?
    b. What is the method/technique your country is most experienced at?
    c. How do you implement such methods / techniques?
        i. Can you give an example of the implementation in an operation?

4. How do you measure the effectiveness of a behavioral influence operation?
    a. Short-term or long-term? Or a combination of both?

5. Do you use BASIC framework/ Behavior Change Wheel/ MINDSPACE/ EAST during influence operations?
    a. If yes → what is the strength of this model/framework? What is less strong about it?
        i. Can you give an example of an operation where you made use of this model/framework?
    b. If no → why do you not make use of this specific model/framework?

6. Do you use persuasion, coercion, training, restriction, priming, nudging, fluency & repetition, humor, etc. during influence operations?
    a. If yes → what is the strength of this technique? What is less strong about this technique?
        i. Can you give an example of an operation where you made use of this technique?
    b. If no → why do you not make use of this specific technique?

7. Are you familiar with the behavioral influence methods being used by other countries?
    a. If yes → what do you think about these methods?
        i. What is strong about these methods and what is less strong?

8. You have mentioned that you have been on missions in name country.
    a. How long have you been there?
    b. Was it difficult to communicate with the local population of that country?
    c. Were you prepared beforehand about the difficulties that might occur in the communication with the local population?
    d. Did you experience cultural differences when you were there?
        i. If yes → can you give some examples?
            1. Were these differences difficult to deal with?
            2. Ask about some characteristics such as honor/losing face, family-ties, hierarchy, speaking the truth and keeping promises.
        ii. If no → why did you not experience this?
    e. Do you think that the influencing methods you are using in your country take cultural differences sufficiently into account?

      f. Can the influencing methods be used without considering cultural differences? Or should they be more considered?

9. Of all the tactics we have talked about, which ones are most useful in your opinion?
      a. Which are less useful?
      b. Can you give some examples of why some of them are useful and why others are not?

10. Are there other methods or topics that we have not touched upon, but are important to discuss in your opinion?

After the interview questions are finished
If there is anything else that comes to mind, you can always send an email me an email, and I would be very interested in reading these additional points.

When the interview is finished I will thank the interviewee for participating in the interview and for sharing his/her view on behavior change intervention methods. Additionally, I will ask if the interviewee would like to get the results of the differences I discover between international armed forces.

<u>Opzet van de focusgroep over de implementatie van gedragsbeïnvloeding-methodieken</u>
Datum, tijd & locatie: op 24-06-2021 van 13:30-15:00 op de Frank van Bijnenkazerne

13:30-13:45 → Introductie van de focusgroep
Tijdens de eerste 15 minuten van de focusgroep zullen de volgende punten worden besproken:
  o Allereerst zullen de deelnemers verwelkomd worden en ze zullen worden bedankt voor hun komst.
  o Daarna zal ik mezelf kort voorstellen voor de mensen die ik nog niet eerder heb ontmoet.
  o Vervolgens leg ik in grote lijnen mijn onderzoek uit.
  o Als het onderzoek duidelijk is dan zal ik uitleggen wat het doel is van de focusgroep en wat het programma is van de focusgroep.
      o Het doel is om de vereisten van de implementatie van een gedragsbeïnvloedingsmethodiek duidelijk te krijgen.
  o Tot slot zal ik vragen of iedereen er akkoord mee is dat er een opname wordt gemaakt. Mocht dit niet het geval zijn, dan is er een notulist aanwezig die de belangrijkste punten mee zal schrijven. Verder zal ik ook benadrukken dat de resultaten anoniem worden verwerkt.

13:45-13:55 → Korte uitleg over de inhoud van de focusgroep
In de tweede gedeelte van de focusgroep zal ik mijn onderzoeksresultaten tot dusverre tonen. Dit zal gebeuren aan de hand van een PowerPointpresentatie.
  o De presentatie zal bestaan uit het tonen van een deel van de resultaten van de analyse en mijn literatuuronderzoek. Vervolgens zal er een stelling geïntroduceerd worden waarover gediscussieerd zal worden.
  o Het bovengenoemde proces zal zich dus elke keer opnieuw afspelen: een stuk resultaten en een stelling wat daarop slaat.
  o De resultaten en stellingen zullen gaan van belangrijk naar minder belangrijk, zodat de belangrijkste statements in ieder geval bediscussieerd zijn voor 15:00.
  o De statements zullen worden ondergebracht in een van de volgende drie categorieën:
      o De vereisten van een implementatie-model als je kijkt naar het soort operaties wat wij uitvoeren als Nederlandse krijgsmacht.
      o De vereisten van een implementatie-model als je kijkt naar de militaire cultuur en identiteit van de Nederlandse krijgsmacht.
      o De vereisten van een implementatie-model als je kijkt naar de cultuur van de landen waarin wij gebruikelijk opereren als Nederlandse krijgsmacht.
  o Verder zal ik vermelden dat ik graag van iedereen weet hoe ze erin staan, maar dat er gelieve niet door elkaar gesproken dient te worden.

13:55-15:00 → Resultaten en discussie met de deelnemers van de focusgroep
<u>Deel 1: resultaten van de modellen die op internationaal gebied gebruikt worden voor de implementatie van gedragsbeïnvloeding (13:55-14:15/20).</u>

- o Eerst zal het verschil tussen target audience analysis en de implementatie hiervan nog een keer verduidelijkt worden.
- o In Nederland wordt BDM gebruikt voor de target audience analysis, maar de implementatie wordt vaak niet gerealiseerd. Dit komt door de volgende drie punten:
  - o Het gehele proces is niet goed geïmplementeerd in de militaire organisatie, waardoor het opdrachtgeverschap vaak ook niet 'goed' is.
  - o Verder is BDM zelf ook niet erg gebruiksvriendelijk voor het implementeren van gedragsbeïnvloeding omdat de parameters daar niet op in gaan. Ook is er in de cursus niet veel aandacht besteed aan de implementatie fase.
  - o Ten slotte wordt BDM vaak gezien als erg rigide, waardoor een flexibele aanpak voor de implementatie vaak niet mogelijk is, terwijl dit wel nuttig zou zijn i.v.m. de soorten operaties die de krijgsmacht uitvoert in verschillende gebieden.
- o Maar wat wordt er dan wel gebruikt voor de implementatie op internationaal gebied?
  - o NL:
    - COM-B model van het Behavior Change Wheel;
    - CASI van de Nederlandse overheid (Binnl);
    - Social Cognitive Theory van Bandura;
    - Self-Determination Theory
  - o DEU:
    - Voornamelijk gefocust op doctrines;
    - Het zou wel kunnen dat andere collega's wel gebruik maken van specifieke modellen;
  - o UK:
    - COM-B model van het Behavior Change Wheel;
    - Behavioral Drivers Model;
    - ISM (individual, social, material) model van de Schotse overheid;
    - Behavioral flow model (aangepast van het terrorism flow model);
    - OODA-loop (Observe, Orient, Decide, Act) model;
    - Metacognition;
  - o USA:
    - De collega had niet genoeg kennis over de verschillende modellen om hier een duidelijk antwoord op te geven. Wel werd aangegeven dat de verschillende capaciteiten (zoals PsyoPs) hier hun eigen invulling aan mochten geven.
- o Er zijn dus in het Verenigd Koninkrijk ook andere modellen die worden gebruikt voor de implementatie.
- o Daarnaast heb ik ook nog andere modellen vanuit de literatuur gevonden die specifiek geïntroduceerd zijn voor de implementatie van gedragsverandering. Deze zijn als volgt:
  - o The BASIC framework
  - o MINDSPACE
  - o EAST

Op basis van deze informatie volgt deze statement:
- Wij zouden als Nederlandse krijgsmacht 1 model moeten hebben die gebruikt kan worden voor de implementatie van gedragsbeïnvloeding

- o Als eventuele vraag tussendoor: en hoe zit het dan met de verschillende soorten operaties die wij doen? Kun je bij PsyOps hetzelfde model gebruiken als bij MilPA of KLE?
- Het is beter om een gesimplificeerd model te gebruiken die ook voor de uitvoerders handzaam is, zelfs als het ten koste gaat van de complexiteit van de situatie
  - o Of juist andersom: Het is beter om een complex model te gebruiken zodat de complexiteit van de situatie gewaarborgd wordt, zelfs als dit ten koste gaat van het begrip van de uitvoerders.

Vraag: Wat zou echt onderdeel moeten zijn van een model als je kijkt naar het soort operaties dat wij uitvoeren als krijgsmacht?

Deel 2: Het tweede deel zal in gaan op de cultuur van de Nederlandse krijgsmacht en de vereisten van een gedragsbeïnvloedingsmodel als je kijkt naar de militaire cultuur (14:15/20-14:30/35)

- o Als je kijkt naar de scores van Nederlandse militairen op basis van de dimensies van Hofstede, dan wordt het volgende duidelijk:
  - ▪ Power Distance = 96 (erg hoog dus, er wordt dus geaccepteerd dat er een groot verschil in macht is)
  - ▪ Individualism = 52 (zit tussen individualistisch & collectivistisch in, maar in vergelijking met Nederland over het algemeen ligt het een stuk lager, want daar scoort Nederland normaal 80
  - ▪ Masculinity = <0 (erg laag, wat betekent dat er voorkeur is voor samenwerking, bescheidenheid, zorg voor de zwakken en kwaliteit van leven)
- o Andere kenmerken van de militaire cultuur: bovendien leren ze de waarden van eer, integriteit, toewijding, loyaliteit, respect en plichtsbetrachting.
- o Daarnaast is de militaire cultuur in verhouding vrij conservatief. Een gezegde zoals "we hebben het altijd zo gedaan en het heeft altijd gewerkt" is niet ongebruikelijk binnen de krijgsmacht.

Op basis van deze informatie volgt het volgende statement:
- De militaire cultuur is conservatief en zou daardoor niet open staan voor de implementatie van gedragsbeïnvloedingsmodellen in het veld.
  - o Als follow-up vraag: hoe zou deze conservatieve instelling overwonnen kunnen worden? Hands-on modellen voor de mensen die het moeten implementeren?

Vraag: waaraan zou ene model moeten voldoen zodat hij door de gehele organisatie wordt erkend als belangrijk en effectief?

Deel 3: Het derde deel zal ingaan op de cultuur van de doelgroep waarin wij gebruikelijk opereren als krijgsmacht (14:30/35-14:50/55)

Tijdens de interviews werd het duidelijk dat je geen gedragsbeïnvloeding kunt implementeren zonder rekening te houden met culturele verschillen. Aangezien het natuurlijk lastig is om van elke cultuur alle normen en waarden te kennen voor deze focusgroep, heb ik ervoor gekozen

om de wereld op te delen in twee culturen: ik-culturen en wij-culturen. Noord- en West-Europese landen en de Noord-Amerikaanse landen staan bekend als ik-culturen. De rest van de wereld wordt toch vaak als wij-cultuur gekarakteriseerd. Bij deze een korte schematische weergave van de wij-cultuur en ik-cultuur.

We-culture	I-culture
The group is central	The individual is central
Behave according to the values of the group	Emphasis on personal choices
Relationship-building before talking about "business"	You can talk about "business" without building a relationship beforehand.
Implicit communication	Explicit communication
Society consists of in-group and out-group	Society consists of separate individuals

Table 1: Major differences between we-cultures and I-cultures (derived from Eppink, 1982)

Uit de volgende interviews is het volgende gebleken wat betreft de verschillen:
- o Relationship-building → is vaak een vereiste voordat ze van gedrag veranderen
- o In-group vs out-group → als jij bij de out-group hoort van de target audience zullen ze je niet vertrouwen, en dus ook niet hun gedrag aanpassen.
- o Individualism vs collectivism → in wij-samenlevingen zijn groepen probeert men er alles aan te doen om de eer en het respect van de groep niet te laten schaden.
- o Communication: implicit vs explicit → ik-culturen maken gebruik van impliciete communicatie, terwijl wij-culturen juist gebruik maken van expliciete communicatie (gebruik van symbolen, dubbelzinnige uitspraken, etc.)
- o Losing face → mensen uit wij-culturen zullen er alles aan doen om niet hun eigen gezicht, en het gezicht van hun groep te verliezen. Ook zullen ze er voor proberen te zorgen dat jij je gezicht niet verliest. Een voorbeeld is dat ze niet vaak op een directe manier "nee" tegen je zullen zeggen.

Op basis van deze informatie volgt het volgende statement:
- • Een gedragsbeïnvloedingsmodel gericht op de implementatie zou vanuit een cultureel perspectief universeel inzetbaar moeten zijn.
- • Het is belangrijk dat er een goede culturele fit is tussen de target audience en de 'influencer'

Vraag: waaraan moet het model voldoen als je kijkt naar de target audience waar we vaak mee te maken krijgen?

Extra + afsluiting (14:50-15:00):
Ideeën voor het model vanuit de interviews:
1. Modellen moeten kunnen worden aangepast zodat ze in verschillende situaties toepasbaar zijn.
    a. Als voorbeeld: een model moet verschillende technieken hebben die in verschillende situaties toepasbaar kunnen zijn.
2. Er zouden verschillende modellen moeten zijn voor verschillende levels in de organisatie:
    a. Complexere modellen voor de experts

b. De mensen die de implementatie van gedragsbeïnvloeding doen moeten eenvoudige, 'hands-on' modellen beschikbaar hebben.

→ Wat vinden de mensen van de focusgroep hiervan?

Afsluiting:
- o Iedereen bedanken voor de deelname aan de focusgroep en voor hun interessante inzichten.
- o Nogmaals aangeven dat de resultaten anoniem verwerkt zullen worden.

Focusgroep: De implementatie van gedragsbeïnvloedings- methodieken

Donderdag 24-06-2021
13:30-15:00
Frank van Bijnenkazerne

De inhoud van de focusgroep

01 Korte introductie

03 Resultaten & discussie

02 Het proces van de focusgroep

04 Eventuele extra's & afsluiting
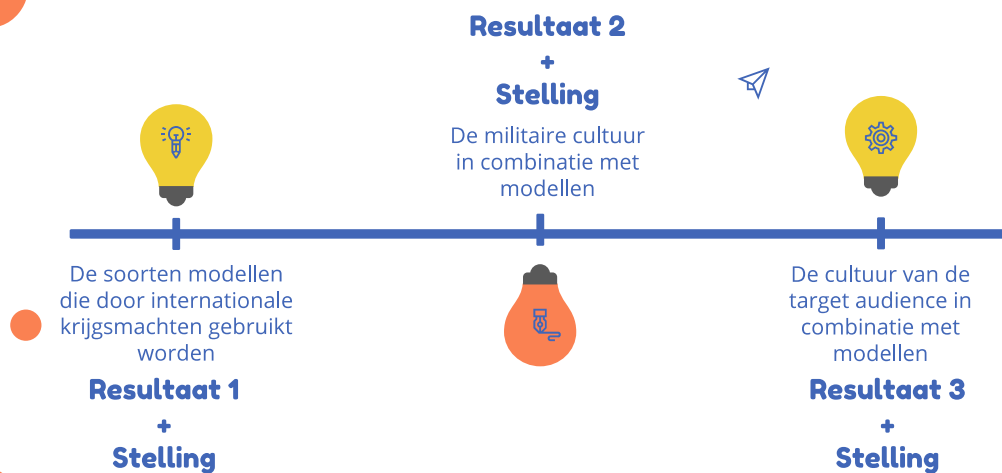
01
Introductie

Introductie

Welkom allemaal!

- Het onderzoek
- Het doel van de focusgroep
- Eventuele opname van de focusgroep

02
Het proces van de focusgroep

Het proces van de focusgroep

Resultaat 2
+
Stelling

De militaire cultuur in combinatie met modellen

De soorten modellen die door internationale krijgsmachten gebruikt worden

Resultaat 1
+
Stelling

De cultuur van de target audience in combinatie met modellen

Resultaat 3
+
Stelling

03
Resultaten & Discussie

De Resultaten (Deel 1)

- Gedragsbeïnvloeding bestaat uit twee delen:
  1. De target audience analyse
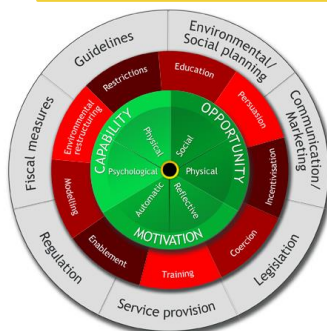 2. De implementatie van de analyse om daadwerkelijk het gedrag te beïnvloeden

Waarom geen BDM voor de implementatie?
1. Het proces is niet goed geïmplementeerd
2. Parameters zijn niet geschikt voor de implementatie
3. BDM is erg rigide, waardoor een flexibele implementatie vaak niet mogelijk is

De Resultaten (Deel 1)

- **Maar wat wordt er dan wel gebruikt voor de implementatie op internationaal gebied?**

COM-B als onderdeel van het Behavior Change Wheel

CASI: de interventie-strategieën

Ook betrokkenheid van externe partijen
Intern Rijksoverheid

Intake — Beleidsanalyse — Doelbepaling — Doelgroepanalyse — Strategiebepaling — Uitvoering

- Omgaan met aversie en scepsis
- Sociaal beïnvloeden
- Gedrag behapbaar maken
- Benutten van automatisch gedrag
- Gevoel van kunnen vergroten
- Associaties en emoties aan gedrag koppelen
- Inspelen op identiteit
- Doelgericht kennis overdragen

De Resultaten (Deel 1)

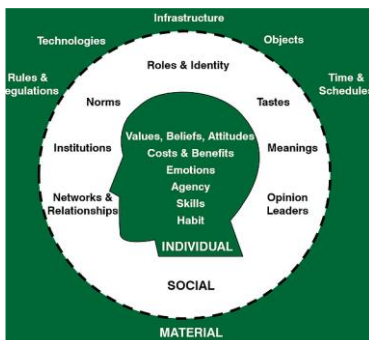- Maar wat wordt er dan wel gebruikt voor de implementatie op internationaal gebied?
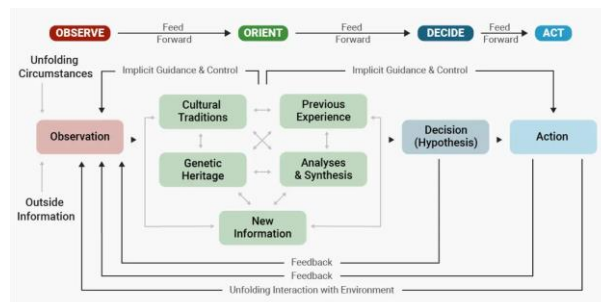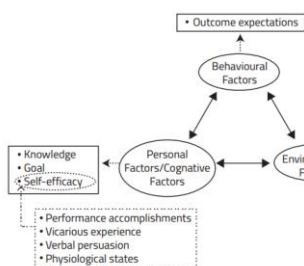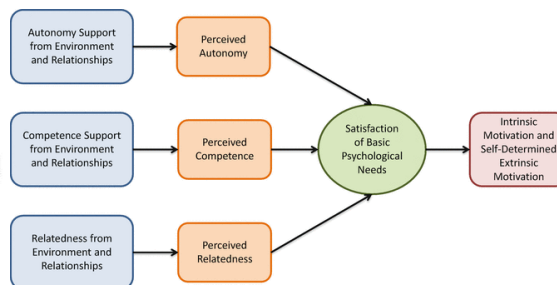
Behavioral Drivers Model
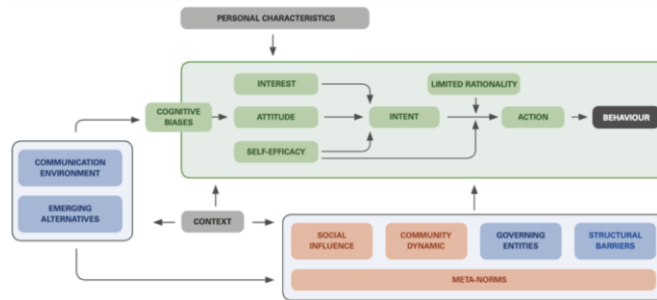
ISM-model van de Schotse overheid

OODA-loop
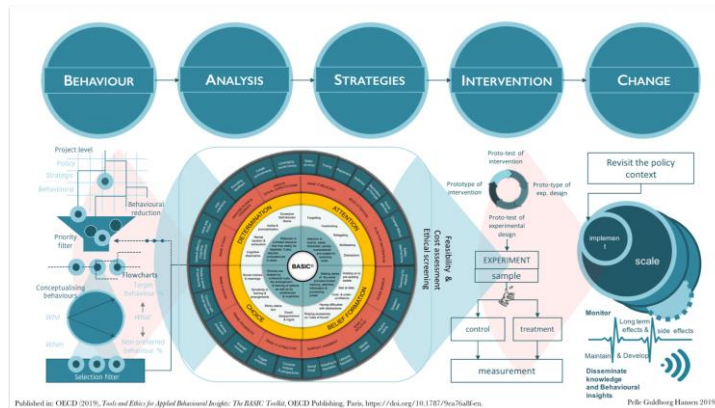
Bandura's Social Cognitive Theory

The Self-Determination Theory

De Resultaten (Deel 1)

- Extra modellen vanuit de literatuur die nog niet gebruikt worden in de militaire context

BASIC framework

Published in: OECD (2019), *Tools and Ethics for Applied Behavioural Insights: The BASIC Toolkit*, OECD Publishing, Paris, https://doi.org/10.1787/9ea76a8f-en.   Pelle Guldborg Hansen 2019©
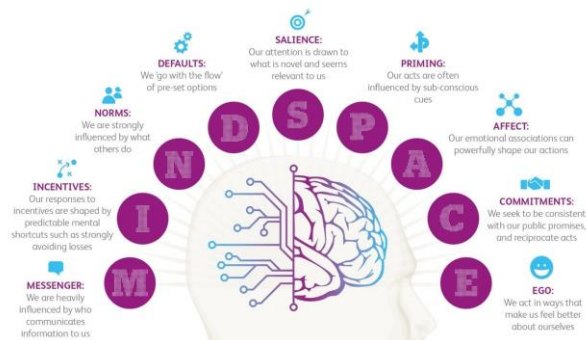
De Resultaten (Deel 1)

- Extra modellen vanuit de literatuur die nog niet gebruikt worden in de militaire context

EAST model

MINDSPACE framework

Stelling 1

Wij zouden als Nederlandse krijgsmacht 1 model moeten hebben die gebruikt kan worden voor de implementatie van gedragsbeïnvloeding

Stelling 2

Het is beter om een gesimplificeerd model te gebruiken die ook voor de uitvoerders handzaam is, zelfs als het ten koste gaat van de complexiteit van de situatie

Extra vraag:

Hoe zou een ideaal implementatie-model eruit zien als je kijkt naar het soort operaties die worden uitgevoerd door de Nederlandse krijgsmacht?

De Resultaten (Deel 2)

- De cultuur van de Nederlandse krijgsmacht
  - *Volgens Hofstede's dimensies:*
    - Hoge score op "Power Distance"
    - Lagere score op "Individualism"
    - Extreem lage score op "Masculinity"

  - *Volgens andere academische artikelen*
    - Eer, integriteit, toewijding, loyaliteit, respect en plichtsbetrachting
    - Relatief conservatief ("We hebben het altijd zo gedaan en het heeft altijd gewerkt, dus waarom zouden we het veranderen?")

De Nederlandse militaire cultuur is conservatief en zou daardoor niet open staan voor de implementatie van gedragsbeïnvloedingsmodellen in het veld.
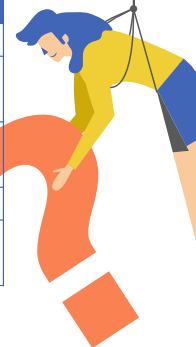
Extra vraag:

Waaraan zou een implementatie-model moeten voldoen zodat hij door de gehele organisatie zou worden erkend als belangrijk en/of effectief?

De Resultaten (Deel 3)

Korte uitleg over wij-culturen & ik-culturen

We-culture	I-culture
The group is central	The individual is central
Behave according to the values of the group	Emphasis on personal choices
Relationship-building before talking about "business"	You can talk about "business" without building a relationship beforehand.
Implicit communication	Explicit communication
Society consists of in-group and out-group	Society consists of separate individuals

De Resultaten (Deel 3)

Wat naar voren is gekomen uit de interviews op basis van deze wij- en ik-culturen

- Relationship-building is vaak een vereiste voordat de target audience van gedrag kan veranderen
- Als je bij de out-group hoort van de target-audience zal je niet vertrouwd worden, en het gedrag zal daardoor ook niet veranderen
- In wij-samenlevingen probeert men er alles aan te doen om de eer en het respect van de groep niet te schaden
- In wij-culturen wordt er gebruik gemaakt van impliciete communicatie
- Mensen uit wij-culturen zullen er alles aan doen om niet hun eigen gezicht, en het gezicht van hun groep te verliezen

Stelling 4

Een gedragsbeïnvloedingsmodel gericht op de implementatie zou vanuit een cultureel perspectief universeel inzetbaar moeten zijn.

Stelling 5

Het is belangrijk dat er een goede culturele fit is tussen de target audience en de 'influencer'

Extra vraag:

Waaraan zou een model moeten voldoen als we kijken naar het soort target audiences (wij-culturen) waar we vaak mee te maken krijgen?

Korte recap

De verschillende modellen die gebruikt worden

De match met de culturen van de target audiences

De match met de militaire cultuur

Ideeën vanuit de interviews

- Modellen moeten kunnen worden aangepast zodat ze in verschillende situaties toepasbaar zijn.

Als voorbeeld: een model moet verschillende technieken hebben die in verschillende situaties toepasbaar kunnen zijn.

- Er zouden verschillende modellen moeten zijn voor verschillende niveaus in de militaire organisatie

Als voorbeeld: Complexere modellen voor de experts & simpele, 'hands-on' modellen voor de mensen in het veld

- Wat vinden jullie van deze ideeën?

Bedankt !

Mocht je nog vragen hebben:
Le.vd.woning@mindef.nl
+31 6 23 05 10 03

Appendix 9: Coding scheme for the analysis

Overarching themes	1st order themes	2nd order themes
Models to change the behavior	Behavior change models	-
	Non-academic behavioral change	-
	Differences between countries	-
	Experience vs academic models	-
	Universality vs diversity in the use of models	-
Techniques to change behavior	Verbal techniques	-
	Non-verbal techniques	-
	Differences between countries	-
Behavior change theories	Academic behavioral change theories	-
Culture	Cultural understanding & awareness	The culture of the target audience
		Your own culture
	Cultural characteristics	Trust
		Relationship-building
		In-group vs out-group
		Individualism vs collectivism
		Communication: implicit vs explicit
		Losing face
	Cultural history	-
	Adaptation to the culture	Being part of the culture
		Adapting to the culture
		Not adapting to the culture
	Within-country cultural differences	Urban vs rural
	Cultural fit between target audience & influencer	-

	Differences between countries	-
	Military culture & identity	-
Measuring behavioral change	Measurements	Effectiveness
		Successfulness
		Performance
	Short-term vs long-term change changes in behavior	-
	Unexpected effects	-
Problems with the implementation of behavioral change	Rotation of positions in the military	-
	Time-restriction	-
	Organizational understanding of behavioral change	-
	Western view / lens	-
	Behavior is hard to measure	-
Ideas for the implementation of behavior change	Situation-dependent	-
	Different levels in the military organization	-
	Complex vs simplistic methods	-

Appendix 10: A detailed explanation on the results from Table 4

Behavior change models	
BDM	The Behavioral Dynamics Methodology was explained in the theoretical framework of this research, and is thus characterized as academic.
COM-B model	The COM-B model was explained in the theoretical framework of this research, and is thus characterized as being academic.
CASI model	The CASI model was explained in the theoretical framework of this research, and is therefore characterized as academic.
Relationship-building	Relationship-building was not identified as an academic model to change behavior in the theoretical framework. It is a way of improving the chances of influencing behavior, but it is not recognized as an academic behavior change model.
Common-sense model	The common-sense model is, also according to the interviewee, not based on academics. It is based on your common sense without following a step-by-step academic behavior change model.
NATO doctrine	The NATO doctrines discusses some academic background, but, as an interviewee mentioned as well, this academic background is not up-to-date. Moreover, not every part of the NATO doctrine is based on academics. Therefore, the NATO doctrines are considered to be having academic elements, but is not fully academic.
PsyOps Cycle	The PsyOps Cycle is a step-by-step model to realize a behavior change in the target audience. However, just as with the NATO doctrine, only a small part of this cycle is based on academics. Accordingly, the PsyOps Cycle is considered to be having academic elements, but is not fully academic.
ISM model	The ISM model was not discussed in the theoretical framework of this research; however, it is considered to be academic. It was created by Andrew Darnton with colleagues at the University of Manchester, and was launched in 2013 by the Scottish Government[12].
Behavioral Drivers Model	The Behavioral Drivers Model was discussed in the theoretical framework of this research already. The model consists of a combination of many different academic theories and can therefore considered to be academic.
Behavioral Flow Model	The Behavioral Flow Model is an adaptation from the Terrorism Flow Model, which is based on academics. Accordingly, this model is considered to be based on academics as well.
OODA loop	The OODA loop is not discussed in the theoretical framework of this research; however, it is considered to be academic. The OODA loop is a four-step approach to decision-making, and is not initiated for behavior change specifically, which is the

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[12] https://www.ismtool.org

	reason why it is not included in the theoretical framework. But, it was initiated by US military strategists in the first place and consists of academic background nowadays.
Theory of Change	The Theory of Change was also not discussed in the theoretical framework, but is considered to be academic as well. It is a comprehensive description and illustration of how and why a desired change is expected to happen in a particular context. The origins of the model can be found in the considerable body of theoretical and applied development in the evaluation field, especially among the work of people such as Huey Chen, Peter Rossi, Michael Quinn Patton, and Carol Weiss[13].
Narrative building	Narrative building is the final model that was discussed in the interviews. It is considered to be very important in behavior change interventions, but it is not based on an academic background. Therefore, the narrative building is colored red.
Behavior change techniques	
KLE or SHE	Key Leader Engagement, or Stakeholder Engagement is considered to have academic elements. Especially the Persuasion KLE as explained in the theoretical framework has academic elements. Persuasion is considered to be an intervention function according to the academic Behavior Change Wheel.
Weapons of Influence	The Weapons of Influence from Cialdini are considered to be based on academics. The founder, Cialdini, has conducted academic research on the use of persuasion to influence behavior. Moreover, as mentioned above, persuasion is considered to be an intervention function according to the academic Behavior Change Wheel as well.
Indirect influence	The use of indirect influence has the goal to change the behavior of the social environment in order to get access and influence the ultimate target audience. This is partly in line with the social influence technique from CASI, but not completely. Therefore, this technique contains elements from academic theory.
Having empathy	Having empathy is considered to be based on academics, as it is in line with the emotional strategy from the CASI model.
Making use of humor	Making use of humor is also a technique which is part of the CASI model. However, humor is considered to be an unintended influence on behavior.
Speaking the foreign language	Speaking the language of the target audience is not treated as academic. A reason why this technique is not mentioned in academic literature could be that the behavior change methods are very westernized and speaking in another language is often not necessary. Nonetheless, in military deployments this can be a very useful technique, but it is not based on academics.

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[13] https://www.theoryofchange.org/what-is-theory-of-change/toc-background/toc-origins/

PPP	PPP is not assumed to be based on academics. However, the idea behind PPP fits within the use of non-verbal prompting, as highlighted in the BASIC toolkit and the EAST framework. Therefore, this technique is classified as partly academic, as it contains academic elements.
Network creation	The network creation technique is in line with one of the techniques from EAST, namely: use the power of networks. Therefore, this technique is characterized as academic.
Line of Persuasion in the PsyOps Cycle	The Line of Persuasion as a technique is part of the PsyOps Cycle as a model. As already explained above, the PsyOps Cycle consists of academic elements, and so does the line of persuasion. Again, persuasion is seen as an academic technique as explained in the Behavior Change Wheel. However, not every part of this line of persuasion technique is academic. Therefore, this technique is colored orange.
Working together with the target audience	Working together with the target audience is considered to be based on academics. It is in line with the "make it social by connecting with social identities and creating a sense of community" technique from the BASIC toolkit.
Using someone from the target audience	Using from the target audience to influence the behavior of the target audience is also assumed to be based on academics. It is in line with the social influence section of the CASI model. According to this model, social influence can be executed by using a role model as messenger. This is also the case in this technique of using someone from the target audience. Accordingly, this technique is considered to be based on academics.
Reciprocal accuracy	The reciprocal accuracy technique is in line with a technique from the academic Behavioral Insights (BI) Tool. Within this tool, reciprocity is part of the social behavioral influences. As this is the same technique, it is characterized as being academic.
Exploiting vulnerabilities	The exploitation of vulnerabilities as a technique is in line with one of the weapons of influence from Cialdini, namely: scarcity. Therefore, this technique is seen as an academic one.
Repetitious delivery of messages	The repetitious delivery of messages is also identified as academic. This is because it is in line with repetition as unintended influence technique from the academic CASI model.
Telling the truth	Telling the truth has not been discussed in any of the behavior change models as a technique. Therefore, it is assumed that telling the truth is not a technique which is based on academics.
Negotiation	Negotiation was not used as a technique in any of the behavioral change models from the theoretical framework. However, it does fit partly with the use of counterarguments in the resistance against influence section of CASI. Nonetheless, as it is not completely similar, negotiation is identified as containing some academic elements.

Carrot-and-the-stick approach	The carrot-and-the-stick approach as a technique is in line with several academic techniques. One of them is about offering rewards and penalties as an individual influence within the Behavioral Insights tool. Another one is from the EAST framework, namely: design rewards and sanctions for a maximum effect as part of the make it attractive section. Finally, it is in line with the reward structure technique from the Behavioral Dynamics Methodology. Thus, this technique is characterized as being academic.
Coercion	The final technique that was used is coercion. This technique is in line with an intervention function from the Behavior Change Wheel and is therefore considered to be academic as well.
Behavior change theories	
Social Cognitive Theory	The Social Cognitive Theory is an academic theory which was firstly introduced by Bandura in 1986.
KAB theory	The Knowledge – Attitude – Behavior theory is an academic theory which is fairly similar to the Theory of Reasoned Action or Planned Behavior. Even though this theory is treated as an academic theory, there is criticism on the effectivity of this theory.
Theory of Reasoned Action / Planned Behavior	The Theory of Reasoned Action and Theory of Planned Behavior from Fishbein & Ajzen assumes that a person's behavior is determined by their intention to perform a behavior. It is a very famous theory and is treated as an academic theory. Yet, this theory has also received a lot of criticism lately, just as the KAB-theory.
Self-Determination Theory	The Self-Determination Theory was founded by Ryan & Deci in 1985 and it is concerned with the motivation behind choices that people make without external influence and interference.
Social Norms Theory	The Social Norms Theory from Perkins and Berkowitz is also characterized as an academic theory. It was also discussed in the Behavioral Drivers Model and it assumes that a person's behavior is influenced by misperceptions of how their peers think and act.
Metacognition	Metacognition theory was also used as a theory to change the behavior of the target audience. It is about being aware of someone's' thought processes and an understanding of the patterns behind them. This theory comes from academic literature as well.
Trauma Theory	The final theory being used by the international armed forces is trauma theory. It was used to identify the difference between betrayal and tradition in certain situations. The theory emerged in the 1990s in academic literature.

<u>Developing a decision tree with the situational applicability of methods</u>
With regards to the use of specific methods in the creation and implementation phase, filling in the following figure (3) would help in clarifying the process. Additionally, it helps in pre-sorting the different options for the methods, which is beneficial as there is no consensus on the best method. This would also reduce the time needed for choosing the best method, which would contribute to the coherence between the behavior change intervention process and the military planning process. Thus, it is advised to elaborate on the decision three for the use of academic methods in behavior change interventions as shown in Figure 3 below. Within this decision tree, the situational applicability should be divided into the stages of conflict and the timeframe for developing the behavior change intervention, as was argued in the focus group.

A few examples on how the Netherlands armed forces can elaborate on this will be provided. First, the Behavioral Dynamics Methodology is suitable in all three stages of conflict, but it is not suitable for a short timeframe. On the contrary, the EAST framework is quite straightforward, which makes it more applicable when there is a relatively short timeframe. When you have a relatively short timeframe, simplistic methods are often applicable, while complex methods might be more applicable in situations with a relatively long timeframe.
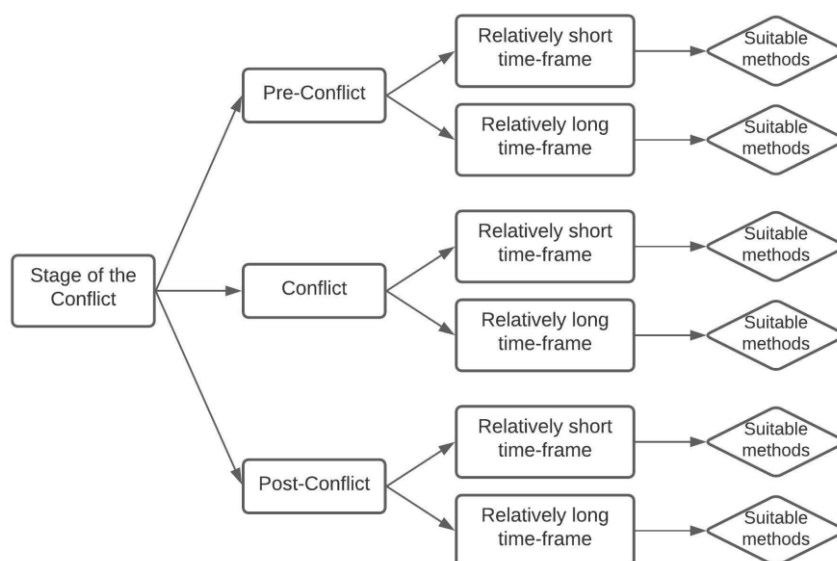

Figure 3: The decision tree for the use of academic methods in behavior change interventions

<u>The use of examples to reinforce the translation from academic methods to practice</u>
The translation from the academic methods to practice is often lacking, which is one of the reasons why the academic methods are not used often in the behavior change intervention process. To reinforce this translation, it is recommended to make use of practical examples when applying the academic methods. This would make the use of academic methods more understandable for a bigger variety of people. This would help in making use of academic methods in the behavior change intervention process, since there is still a lack of organizational understanding of such academic methods.

Appendix 11B: Detailed explanation of the contribution to practice with regards to the obstacles for the effectiveness of behavior change interventions

<u>Increasing the organizational understanding of behavior change interventions</u>
To ensure that the behavior change intervention process is understood and considered to be important by most of the organization, it is necessary to make it an acknowledged field of expertise. This can be done by training a broader group of people in the organization. This broader group does not only include analysts, but also planners and commanders. Moreover, the importance and the basics of behavior change interventions should already be taught during the general education of soldiers, and at the military academy. When the broader group of people is trained in this field, and acknowledges the importance of the field, it will be easier to integrate the entire behavior change intervention process.

<u>Institutionalizing the behavior change intervention process</u>
When trying to institutionalize the behavior change intervention process, it is advised to create a clear internal narrative, as was also highlighted in section 4.1.3 of this study. Having a clear narrative means that you have a clear story about the complete behavioral change interventions and its importance. Moreover, concrete examples should be given to make it less abstract. Having such a consistent story would contribute to convincing the colleagues higher in the hierarchy, as well as lower in the hierarchy. Having a clear internal narrative also helps to overcome the conservative nature of the military culture. However, there is at least one necessary point which should be included in this internal narrative, namely: the integration of measurements of effect. Within this internal narrative, it is necessary to integrate measurements of effect in the entire process as it can show beforehand what the desired effects are, which makes it more understandable for the different levels in the organization. Hence, by integrating measurements of effect in the entire process, the internal narrative will be strengthened. An example of how the measurements of effect can be implemented in the entire process was raised in the interview with a participant of the British armed forces. They make use of the Chilcot Checklist (Ministry of Defence, 2017). This can also be used by the Netherlands armed forces.

It was already highlighted that it is important to have a clear narrative when performing behavioral change interventions during deployments. Accordingly, it would be helpful to have a clear internal narrative as well. Overall, this would help to create a recognized field of expertise within the Dutch military organization, and subsequently, institutionalize this field of expertise.