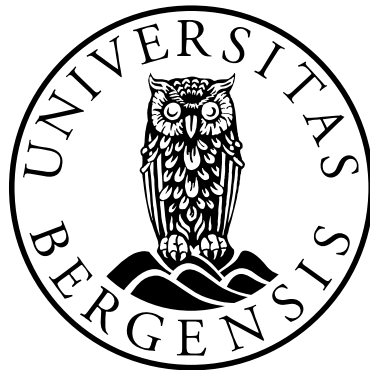


“The impact of military identity on performance in the Norwegian Armed Forces”

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Dissertation for the degree philosophiae doctor (PhD)
at the University of Bergen

2013

Dissertation date: 5 desember, 2013

The Coward dies a thousand deaths, the brave but one

Ernest Hemingway, 1920

A farewell to arms

Acknowledgements

This thesis was funded by the Norwegian Defence University College, and the research was conducted at the Department of Psychosocial Science, Faculty of Psychology, University of Bergen. It has been a long but interesting journey, and I would like to express my appreciation to a number of people who have contributed and made this thesis possible.

First and foremost, I would like to express my gratitude to my supervisors Jon Christian Laberg and Monica Martinussen. Thank you for your continuous support and excellent guidance throughout these four years. You have both kept up the optimistic spirit, and expressed a candour belief in the project. I have felt safe when you have guided me through the difficult process of writing scientific research articles.

I am also indebted to leaders and my contact persons at the junior officer schools, the war colleges, and the Armed Forces Institute for Physical Training, who opened the gates to their organizations, and facilitated data collection. The time and effort you have put in this work has been invaluable to me.

I am very thankful to Johan Bergh, who offered me an enormous flexibility of work place. Through these years, it has been a vital factor of success. I also want to thank Ole Christian Lang-Ree. You have supported me through the important process with data facilitating, -collection and -processing, as well as contributed with valuable methodological discussions, assistance, and insight. I have enjoyed your company a lot.

To Hege and Nina at the library, thank you for providing me with an endless number of articles and literature. The navy expression “speed and service” has proven to be your hallmark.

To my beloved Ida, thank you for being there for me. As always, you have shined, encouraged me, and lightened up my life.

My precious Thea, Elias and Adam, through all those years you have given me the right perspective of life, and remembered me of my important role as a father.

Fredrikstad, May 2013 – Rino Bandlitz Johansen

Abstract

From a Norwegian point of view, doctrinaire guidance now set the premises for new perspectives related to the military ethos and identity. The exodus of *idealism*, a military identity based on traditional values as altruism, patriotism and nationalism, has opened up for *professionalism* as a preferred and necessary military identity in the Norwegian armed forces. Based on this paradigmatic change, it follows that if professionalism could be reliably defined and measured, it might contribute to the formation of a new selection instrument for leaders in the armed forces. However, there is little empirical research to support the predictive validity of military identity on relevant outcome variables, partly caused by a lack of appropriate measurements. Examining the predictive value of military identity, and professionalism in particular, are thus necessary steps before new selection and education procedures can be introduced for the development of future military leaders. The primary purpose of the present thesis thus was to investigate to what degree military identity actually predicts military performance in the Norwegian Armed Forces.

The objective of the first study was to perform a psychometric evaluation of a Norwegian 33 item questionnaire, assessing internal consistency, performing an exploratory factor analysis, and investigating aspects of the construct validity of the scale. Moreover, test-retest reliability was investigated. A second purpose was to investigate if any individual level characteristics such as age, gender or service would be related to different identities. Such differences would be expected from identity theory and social identity theory.

Study 1 was based on data from two sub studies; sub study a) included cross sectional data from military personnel in the Norwegian Armed Forces ($N = 317$), and sub study b) included longitudinal data from students conducting a one-year junior officer education ($N = 238$). A three-factor structure was identified comprising the dimensions of Professionalism, Individualism, and Idealism. Internal

consistencies for the three subscales were acceptable, with Cronbach's alphas varying between .60 and .83. Test-retest reliability and construct validity was supported. Finally, Professionalism scores were found to be significantly higher among Army personnel compared to Navy and Air Force personnel, whereas Individualism scores were significantly lower in the Army compared to the Navy.

The second study included 101 cadets from the 3 Norwegian military academies (Army, Navy, and Air Force). This study examined if, and to what extent military identity might predict perceived military performance and attitudes, as measured by assessments of military skills, general military competence, and organizational commitment, beyond what was predicted by personality traits and Hardiness, in Norwegian military academy cadets.

The third study included 347 students from Norwegian junior officer schools. It examined the influence of military identity on military performance, and the potential of military identity to predict military performance as measured by overall performance, petty officer potential, and leader performance beyond Military Ethos, Organizational Commitment, and Hardiness in Norwegian junior officer students.

The findings from study 2 and 3 indicated that Military Identity predicted aspects of military performance. In study 2, Professionalism (labeled as Operational identity) predicted perceived military competence and skills positively, and Individualism predicted organizational commitment negatively. In study 3, Professionalism also predicted overall military performance.

The present studies separately extended previous research. Study 1 offered a psychometric sound and stable instrument for measuring dimensions of military identity. It also offered a first indication of the distribution of different dimensions of military identity across the 3 services in the Norwegian Armed Forces, thus supporting Social Identity Theory. Furthermore, Study 2 and 3 both provided empirical evidence for the predictive value of military identity. These findings also confirmed both Professionalism and Individualism as important and independent

constructs with a unique and added value to explain military performance. This thesis thus offers new knowledge into multiple fields related to the interplay between military sociological, psychological and performance variables.

List of publications

Paper I

Johansen, R. B., Laberg, J. C., & Martinussen, M. (2013). Measuring Military Identity: Scale development and psychometric evaluations. *Social Behavior and Personality, 41*, 861-880.

Paper II

Johansen, R. B., Laberg, J. C., & Martinussen, M. Military identity as predictor of perceived military competence and skills. *Armed Forces & Society*, online 28 may 2013. DOI: 10.1177/0095327x13478405.

Paper III

Johansen, R.B., Laberg, J.C., & Martinussen, M. (In press). The impact of military identity on Norwegian junior officer students. *Journal of Political and Military Sociology: An annual review*.

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1. Introduction

Over the past 20-30 years, social trends have caused radical changes in the application of military power, including new service patterns and altered skill requirements (Downes, 2000; Moskos, Williams & Segal, 2000). The complex goals of attempts to solve contemporary conflicts often involve a combination of counter insurgency, post-conflict reconstruction, and nation building, which western military forces traditionally have not been equipped, prepared, nor trained for (Angstrom & Duyvesteyn, 2010; Egnell, 2010; Franke, 1997; Laberg et al., 2005). Recently, it has been pointed out that diverse operational contexts necessitate contextual dexterity and flexibility regarding roles and tasks, requiring deeper and broader competencies (Birkinshaw & Gibson, 2004). New service patterns also require differently motivated soldiers, and officers with better leadership skills and more robustness than before. Further, psychological stability among the soldiers has also increased in importance as operations have turned to become more war-like. Under such circumstances, higher levels of commitment are regarded imperative for effective military performance (Faris, 1995; Le Boeuf, 2002; Moskos, 1977).

Certain changes have also occurred in the way military personnel view their occupation. Forsythe et al. (2002) described this as a military identity crisis, and Mäkinen (2011) suggested that such a crisis would influence both the shaping and maintenance of military identity and occupational perception. From a Norwegian point of view, a decision was made in 2005 to move Norwegian military identity away from idealism towards professionalism (Eriksson, 2002; 2004). This shift has also been referred to as the Norwegian military paradigm shift (Diesen, 2005), where professionalism was introduced and doctrinaire formalized as a necessary condition for serving in the military, and was seen as a way to increase military performance (FFOD, 2007).

We thus experience a time with major changes in military missions, and as changes in military identity which could be expected to influence areas of military performance.

Hence it is important to explore and understand the consequences of such an interaction. This appears both challenging as well as necessary due to several reasons; Firstly, research on this topic appears scarce, offering few empirical studies. This could be because the concept of military identity still appears complex and multidimensional, as opinion still seems to differ on how military identity should be interpreted, and the extent to which it affects members of the organization (Evetts, 2003; Lock-Pullan, 2001; Woodward & Jenkins, 2011). It may also be explained by an apparently lack of adequate measurement instruments.

Second, the shift from an emphasis on idealism to professionalism is a strategic choice, and raises crucial conceptual and practical questions. What is the current nature of military identity of Norwegian military service members, and to what extent is the move towards professionalism justified? As it could cause radical changes at both organizational and individual levels, certain positive effects should be expected, such as improved selection and training procedures, as well as increased level of performance and development of future military leaders. However, such effects have never been explored, and the impact of professionalism remains unresolved.

Third, the dissertation aims particularly at investigating the relationship between both sociological and psychological aspects of identity and identity shaping, and individual military performance. Very few studies which have investigated such relationships directly have been detected (Thomas et al., 2001). Thus the thesis offers new research perspectives to multiple scientific fields.

These arguments points to the necessity to develop and test an instrument, suitable for measuring military identity with adequate psychometric properties. Further, to utilize this instrument, and examine whether, and to what extent, aspects of military identity may predict performance and attitudes among Norwegian military personnel. As the concept of military identity is a central topic in this dissertation, a conceptual outline of military identity will be presented first, focusing on the theoretical basis and different models applied, aiming at establishing a multidimensional construct of

military identity fit as measuring model for the Norwegian context. This section also includes an introduction and discussion of Big Five and Hardiness, as they are regarded and employed as important control variables in the dissertation. Then the specific aims of the study, including the research model and how the studies were conducted is presented. Finally, findings are presented and discussed. In the following, these issues are set out in more detail.

1.1 Investigating military occupational perceptions in the conceptual framework of identity

From a general perspective, this dissertation to a large extent is about military occupational perceptions. As the analytical tool however, (or departure of theory) the conceptual framework of identity, or more specifically; military identity was chosen. This perspective is chosen partly because military (professional) identity as expression and phenomena recently has been introduced and highlighted as vital in the Norwegian Armed Forces. Further, using the concept of identity as theoretical framework gives us an opportunity to approach the dissertations' core questions from several different angles.

The amount of theories approaching identity as a concept appears complex and far reaching. So complex that Brubaker and Cooper (2000), as an extreme point claimed that identity as a concept was becoming ...” meaningless due to an overconsumption, and was too ambiguous, too torn between ‘hard’ and ‘soft’ meanings, essentialist connotations and constructivist qualifiers, to be of any further use to sociology”... However, Côté & Levine (2002) argued that identity theory seemed to follow two approaches. The psychological one which focuses on the individuals' inner attributes, and the sociological approach, which views identity as something that is shaped both through the individuals' inner attributes, and through interaction with others. Côté & Levin (2002) also pointed out that the sociological approach seemed to lack an empirical base, and at that the psychological approach seemed to lack a theoretical base. Further, Jenkins (2008) claimed that identification

generally had larger consequences when identifying others, rather than self categorization, which Myers (2010) described as the social definition of who we are, as well as we not are.

Lappegård (2007), also referring to Leary & Tangney (2003), and Mc Martin (1995), pointed to the existence of several definitions and theories related to the concept of identity. These may be sorted by four to five wide theoretical categories; *psycho dynamic theories, cognitive theories, social learning theories, humanistic and existential theories, and theories focusing on the interpersonal aspects of identity*. However, it should be mentioned that the limits between these broad categories are vague, and they share several common characteristics. The departure of this dissertation relates to the last of those groups, which emphasizes the social influence of identity, and thus appears most appropriate. In this respect, Social Identity Theory (SIT), (Tajfel, 1981, 1982; Tajfel & Turner, 1979), may be regarded as the most influential theory belonging to this group. SIT is an empirical based, context dependant theory, and represents the relationship between the self and the context. Tajfel (1982) further explains social identity as *“the individuals` knowledge of her belonging to certain social groups, and those emotions and values this implies”*. Social identity will thus rely on the quality of those groups we belong to or make positive references to. This perspective also seems consistent with Erikson (1968), which is regarded as the first psychoanalytic theorist to stress the importance of identity formation. Erikson (1968) viewed identity processes as including a transcendence of identification-based commitments- to those uniquely one’s own, as well as a feeling of well-being across various social roles; fidelity to one’s chosen values; and a sense of continuity despite change. Recognition of, and by significant others, was further an important identity process helping to validate identity choices.

SIT, along with social categorisation theory, suggests that people categorize themselves as members of certain social groups at different abstraction levels, or as unique individuals. Related to the Armed Forces, an individual thus may identify with his or her own career (personal level), at different sub groups within the

organization (eg Navy, Army), or at the Armed Forces as a whole (eg soldier, officer) (Wagner et al., 2005). The essential identification is either “I” or “We”. Such a perspective offers shift of identity depending on which identity that appears most salient. Thus frequently shifts in type of service and roles, which is quite common in military service, could thus be expected to affect or cause “changes” in the members’ identity.

Albert and Whetten (1985) held a view that holographic organizations were separate from the ideographic. In a holographic organization, individuals across subunits share a common identity, while in ideographic organizations, the individual identifies with subunits. As the Norwegian Military Doctrine adverse a common identity, it may be interpreted as a wish for a holographic organization, where the members, across sub units, must share a common identity. On the other side, the Doctrine also underlines that the organization should not be weakened as “the members certainly will identify themselves with their primary role”. As such, the Doctrine to a certain extent communicates duplicity, which again may challenge the organization.

An interesting question is thus which factors determine whether an individual regards itself as a member of the organizations as a whole, sub groups in the organization, or as unique individuals. This is interesting because the level of identification influences attitudes, values, and behaviour of the individuals, as well as the functioning of the organization as a whole (Haslam & Ellermers, 2011). Haslam (2004) also viewed social identification as internalization of values and goals of an organization, and Grojean et al. (2006) also pointed out that the greatest impact on ones’ attitudes, value orientation and subsequent behavior is that of role specific identity. Thus, to which degree the members of the Armed Forces internalize existing goals and values, as well as adapt to expected roles, may have impact on performance. Haslam et al. (2009) also held that shared social identity could be seen as the basis for all forms of productive social interaction between people, including aspects as leadership, motivation, communication, and trust. Van Dick et al. (2005) also summarized that identification plays an important role in work-related attitudes and behavior, and that the emotional component of identification is probably the best

predictor of performance. The main prediction of SIT for organizational contexts is that the more an individual defines him- or herself in terms of membership in an organizational group (as for instance the Armed Forces) the more his or her attitudes and behaviours are governed by this group membership. For the organization, this should result in greater performance, lower absenteeism, and turn-over, and more extra-role behaviours. For the individual, higher identification should result in greater job satisfaction, higher motivation and higher levels of physical and emotional well-being.

In his study of US reservists, Griffith (2009, 2011) also applied Social Identity theory when elaborating on the construct of military identity. He claimed that identities are expressed as attitudes, behavioural tendencies and behaviours expected of the specific identity. Thus people assume roles of specific identities, or role identities. Several propositions from identity theory can thus be made regarding role identity, their salience and expression. When a person expresses an identity, he or she displays attitudes, behavioural tendencies and behaviours expected of that specific identity (role identity). When an identity is high in salience, the person is more likely to express that identity (identity salience). When the expressed identity reflects values and norms of the institution, then the more attitudes, intentions and behaviours will be consistent with the preferences of the institution (in our case, military professionalism).

1.2 Military identity; Theory, concepts and research from a military sociological point of view.

The Second World War acted as an inflection point for the sociological study of the military, dominated by Americans, with an applied orientation focusing on organizational and small group processes. The major substantive psychological and sociological knowledge base of the field, as well as major conceptual and methodological advances came from the reporting of experiments, field observations, and surveys (Burke & Segal, 2012). The leading work of Stouffer et al. (1949 a, b)

covered a range of topics as cohesion, leadership, primary groups, morale, communication, setting the stage for the advancing sociological and psychological research agenda. During the Cold War, Little's (1964) research reaffirmed the importance of interpersonal processes for motivation and support in combat. Coming into the twenty-first century, scholars began to theorize about a post modern military (e.g., Dandeker et al., 2011; Kelty, 2008; Moskos, 2000). However, research done on the postmodern military model was carried out within a modern-era positivistic framework, and the new paradigm did not gain much traction (Booth et al., 2001).

The Huntington (1957) and Janowitz (1960) interpretations of military professionalism stood, and in many respects, still stand as the most influential theoretical frameworks for the military profession. Both focused on the officer corps and rise of military professionalism. Huntington (1957) argued for the recognition of an autonomous military and respect for the independent military sphere of action, while Janowitz (1960) held a more pragmatic and converging view, rejecting the ideal-type division of labor that Huntington (1957) claimed as essential to the professionalization of the military. Janowitz (1960) predicted an altered role for the future military where it had to deliver both strategic deterrence and limited wars, introducing the concept of a "Constabulary Force", continuously prepared to act, committed at the minimum use of force, and seeking viable international relations, rather than military victory.

Huntington's and Janowitz's concepts of military identity, or professionalism, thus could be viewed as a useful tools for identifying the myriad changes in the military craft as it evolves. It could also be useful, even and perhaps especially in focusing attention on the attitudes and perspectives of service personnel (Feaver, 1996). However, some limitations related to their work should be noticed. Their theories were developed almost 50 years ago, under a radical different world order. How well these theories still apply today could thus be questionable. The theories are in large concerned about US civil-military relations, which on several aspects deviate from Norwegian conditions as examined in this dissertation. Further, their focus and levels

of analyses were primarily aimed at the officer corps, thus excluding large parts of the personnel in the Armed forces, as conscripts and non-commissioned. Feaver (1996) also argued that Huntington's core claims had not been born out by subsequent experience or empirical inquiry, and at best could be considered as a point of theoretical departure.

With the replacement of conscription with a volunteer force recruited by labor market dynamics in the US military, Charles Moskos (1977) suggested that military service was being transformed from a value-based vocation to an economically-based job. This formulation, also referred to as the Institutional and Occupational models (I/O) had implications at the micro- and meso-levels of analyses for understanding both the individual soldier and military organization. The focus also shifted from the officer corps against the enlisted personnel, as an increasing number of nations abandoned conscription in favor of volunteer force (Segal, 1986). Hence, the I/O thesis dominated the research field, and was increasingly applied by scholars in other nations (Moskos & Wood, 1988). The initial dichotomous approach to the I/O thesis has also later been challenged by Segal (1986), who argued for an evaluation of the thesis and alternatives to it, including a concept of pragmatic professionalism.

Aspects of military identity, from a military sociological point of view, thus seem to have been expressed and explored in normative orientations and terms, like culture, attitudes, values, and motivation, often following the classical theories and concepts of Huntington (1957), Janowitz (1967), and Moskos (1977). Further, military identity could thus be explored, or investigated by tapping the degree to which soldiers and officers are motivated and willing to internalize the Armed forces' roles, prevailing goals, values and tasks. Changes in Western culture have also complicated identity shaping and verification, because the complexity of the individual "self" increases alongside the number of groups, organizations, and identities available to the individual (Côté & Levine, 2002; Stryker, 1980). Thus, as both society and the Armed Forces change, the military identity is likely to alter accordingly. A reasonable departure to establish measureable dimensions and

constructs of Norwegian military identity thus could be done by examining the historical connection between social development and trends in the Norwegian Armed forces. Our starting point will be that Norwegian military identity may be viewed as a multidimensional construct, comprised by idealism, professionalism, warriorism and individualism. In the following sections, these four suggested dimensions of military identity will be addressed with regards to definitions, operationalization and measurement.

1.2.1 Idealism

In a Norwegian context, idealism can be viewed as the dominant military identity during the cold war, when Norway was of specific geopolitically interest in the strategic interplay between NATO and the Warsaw Pact. A strong territorial defense was necessary, based on the nation in arms model, and the concept of the citizen soldier, or homeland defender (Haaland, 2011). An idealistic military identity, based on strong collectivism, patriotism, and altruistic values was fostered (Ulriksen, 2002). Military service was regarded as a national obligation and a way of life, motivated by a “greater good”, surpassing personal interests, and participation in international operations was perceived as less relevant, valued as a service or career “side step” (Børresen, Gjeseth, & Tamnes, 2004). Conceptually and theoretically, the construct of idealism closely resembles institutional military values, outlined and defined through Moskos’ Institutional – Occupational thesis (1977, 1988, 2000). Aspects of idealism have also been tested empirically, based on measures using both single items and scales (Franke, 1997, 2001; Laberg et al., 2005), and by interviewing Norwegian soldiers during operations in Kosovo (Mæland, 2004). However, the shift in operational focus has effected the current assumption that idealism as a military identity is now less relevant for Norway, and should therefore be abandoned (Diesen, 2005; Eriksson, 2004, 2006). The increasing number of international operations pushes the Armed Forces towards new ideals and identities. Nevertheless, such a shift could be questioned, as recent studies provide empirical evidence suggesting that traditional institutional military values, or idealism, have been underestimated both as

a motivation to serve and as potentially important predictors of military effectiveness and performance (Ben-Dor et al., 2007; Eighmey, 2006; Griffith, 2007, 2009; Kelty, Segal, & Woodruff, 2006), and to remain in the military (Gorman & George, 1991; Moore, 2002). Idealism thus seems to be important along at least two lines. First, it appears to enhance combat effectiveness. Second it seems to be an important motivating factor both to join as well as to remain within the Armed Forces.

1.2.2 Professionalism

As outlined previous, most of the concepts and definitions of military professionalism rests on the classic theories and models of Huntington (1957), Janowitz (1960) and Moskos (1977). They thus offer a wide range of characteristics and definitions, and a clear construct seems hard to establish. Thus to capture the construct of Norwegian military professionalism, the doctrinal point of departure may be viewed as the overall construct of military professionalism, as it seeks to express a combination of required shared attitudes, values, norms, skills and behaviors to be expected from military personnel serving in the Norwegian Armed Forces. It appears to follow the lines of Huntington (1957), and to be characterized by (a) the necessity and willingness among the military personnel to participate in international joint operations (expeditionary ethos), (b) a strong instrumental focus, with emphasis on the conduct of operations, in particular the development and cultivating of combat skills (operational ethos), and (c) a motivation to serve based on team cohesion and war comrade fellowship rather than on a desire to serve a superior cause (peer ethos). The outlined characteristics adhere to Wong and Johnsen's (2011), and Pradhan's (2009) concept of military professionalism, and also echoes the recent micro-sociological empirical findings detected by Woodward and Jenkins (2011), and converge with Stensønes' (2012) recent findings from her interviews with experienced Norwegian Afghanistan veterans. As micro-sociological analysis also suggested that individual military identities are about practices rather than about attributes to be mapped on to predetermined analytic categories, we could also expect

that the increasing recent combat experience and practice gained by Norwegian soldiers during international operations in it self could act as catalyst to generate professionalism.

The introduction of Professionalism thus seems appropriate considering an increased emphasize on the conduct of operations. On the other hand, the Norwegian concept of military professionalism contains shortfalls in terms of more general, classic and accepted theoretical hallmarks of military professionalism (Gabriel, 1982). Most importantly, it appears to exclude, or at least undervalue altruistic values and institutional features as serving a superior cause (peer ethos). The necessity of the latter appears justified by decoupling of national identity and patriotism on the one hand and the character of the mission on the other (Edstrøm, Lunde & Matlary, 2009). Furthermore, professionalism seems to overstate the importance of the war-like component, which could be dysfunctional in operations focused on other parts of the conflict spectrum, requiring different qualities. Faris et al. (1993) also discovered that in companies in which the commanders emphasized combat skills to the relative exclusion of morale, the soldiers showed lower company commitment, less confidence in leaders, lower general well-being and less work satisfaction.

The theoretical complexity and present lack of a common understanding of Professionalism as a construct was also visualized and analyzed explicit in article 2 in this dissertation. As a consequence, Professionalism was labeled Operational identity, but still measured with the same instrument. For practical purposes, the term Professionalism will be used throughout.

Scientific efforts have been put into exploring and defining different aspects of military professionalism. Some items and scales have been developed, which may be used to measure aspects of professional values, motivation and identity (Cotton, 1981; Faris et al., 1995; Guimond, 1995; Hall, 1968; Schumm et al., 2003; Soeters, 1997). However, few recent attempts have been made to measure military professionalism as a single or defined construct, thus a pure military professionalism scale seems to be lacking.

1.2.3 Warriorism

A broad definition of a warrior can be expressed as a person skilled in warfare or combat (Wong, 2005, 2006). In such a sense, most soldiers will be warriors. However, a nuance appears when the motives become related to a specific desire or attraction to involve in combat, or a preference of war as a lifestyle for the war itself, rather than as mean to solve political ends (Moore & Gilette, 1990). From this perspective, the concept of warriorism, or warrior spirit, is confined to attitudes toward war fighting, expectations about fighting in a war or combat, and the degree of personal satisfaction which one expect to gain from participating in combat (Newsome, 2003). Britt (2003) found in his study of 1200 US Army Rangers that high levels of warriorism was related to increased work engagement during missions with low job clarity. On the other hand, attempts to stress warrior spirit have also proven to be counter-productive during operational circumstances as peace keeping and operations other than war, as it encourages rash behaviour (Newsome, 2003). Aspects of warriorism have also been measured by Franke (1997) among West Point cadets, Franke & Gutteri (2009) among US officers, and by Laberg et al. (2005) among Norwegian soldiers.

1.2.4 Individualism

Norwegian society seems to have developed in a direction where the rise of individualism and self-interest may have weakened the authority and collective values of the national state. This has affected both the Armed forces as an organization, and its members. Aspects of individualism in the military have in large been investigated in terms of Moskos I-O thesis (1977), who claimed that military service changed from being a calling of vocation legitimized by institutional values, to a regular occupation legitimized by the labour market. As occupational values and motives imply the priority of self-interest, it has a potentially negative impact on both the members and the organization (Wood, 1988). In his study of cultural differences in military academies, Soeters (1997) draw experiences from both Moskos I-O thesis,

and Hofstede's (1980) cultural studies, suggesting that high degrees of individualism were certain indicators of occupationalism, reaching a high level among Norwegian cadets. Similar findings are also found in a comparative study performed by Soeters et al. (2003), which indicated that Norwegian officers tend to value leisure, regular working hours, higher salaries and career opportunities.

An extension of Moskos's I-O thesis is also suggested by Battistelli (1997, 2000), who argued that individualism could be seen as resulting from both occupational and postmodern attitudes. His analyses are also supported by Jacobsen's (2005) study of service motivation among Norwegian officers. Theoretically and conceptually, Individualism may thus arise from a combination of occupational and postmodern values. Additionally, the Norwegian Joint Doctrine highlights the importance of avoiding ego centricism and selfishness, implicit describing Individualism as a "threat" to the quality of service. We could also expect individualistic values to be present among servicemen and women in the Norwegian Armed Forces.

The impact of Individualism has also been tested empirically, indicating negative effects as reduced combat effectiveness (Faris, 1995; Griffith, 2008, 2009).

Hence, there seems to be both a theoretical and conceptual basis for the four suggested dimensions comprising military identity. For some of them, there also exists established models of explanation, and measurements represented both by items as well as established scales. Aspects of the constructs have also been tested empirically. On the other hand, pure scales seem to be lacking, especially with regards to Professionalism. Thus a proper scale construction of the constructs of interest could be achieved by a mixture of already established and validated items and items developed from theory for the specific purpose to cover each dimension based on its construct content. The introduction so far suggests a paradigm shift in the Norwegian Armed Forces, influencing the development of military identity. Further, different aspects of military identity might influence the success and quality of military service. A military organization lacking in professionalism might contain

members ill prepared for a modern operational reality, neither mentally nor operationally. Ultimately, this might cause an erosion of the Armed Forces. On the other hand, it should also be noted that professionalism favours the war-like component of the conflict spectrum. An over-emphasis of professionalism and the warrior role of the soldier could thus be dysfunctional in operations focused on other parts of the conflict spectrum, where different qualities may be required.

Additionally, possible effects of idealism, individualism and warriorism should be investigated. Thus in order to establish a new empirical baseline for knowledge related to civil-military relations, the interaction between military sociological and psychological phenomena, and specific performance variables must be investigated. This knowledge may in turn form the basis of theoretical and practical developments, both for Norway in particular and for comparable nations such as western NATO members in general.

1.3 Investigating the identity – personality – performance link

This dissertation aims particularly at investigating the relationship between both military identity, (personality traits) and individual military performance. Very few studies which have investigated such relationships directly have been detected (Thomas et al., 2001). Additionally, in their recent analyses of the impact of identity and service values on performance, Grojean and Thomas (2006) argued that such a link is difficult to establish because few studies have examined the direct relationship between aspects of military identity, particularly professionalism, and individual performance. Thus the purpose in study 2 and 3 was to investigate possible unique effects of military identity on performance, by controlling for different sets of personality trait variables, which have been proven valid predictors of performance.

1.3.1 The Five Factor Model of personality

There is emerging consensus that a five-factor model of personality (often termed the Big Five, including Extroversion, Agreeableness, Conscientiousness, Emotional stability, and Intellect/Openness) can be used to describe the most salient aspects of personality. One of the mostly researched applications of the Five Factor model is that related to the prediction of job performance and skills, with meta-analyses indicating the Big Five traits to be valid predictors of work and training performance (Bono, Remus, & Megan, 2002; Hough, 1992; Judge, Tett, Douglas, Jackson & Rothstein, 1991, Barrick & Mount, 1991). Across occupations, the best predictors of various performance measures were found to be Conscientiousness and Emotional stability, and in support of this, recent studies of military subjects have found Conscientiousness and Agreeableness to be associated with increased leadership performance as well as with higher skill ratings among military cadets and service teams (Bartone et al., 2002; Bartone et al., 2009; Halfhill et al., 2005).

What should also be noticed is that the Big Five does not provide a complete theory of personality (Block, 1995), and was never intended as a comprehensive personality theory. It was developed to account for the structural relations among personality traits (Goldberg, 1993). Thus like other structural models, it provides an account for personality that is primarily descriptive rather than explanatory, focusing on variables rather than on individuals, or type of individuals (John & Robins, 1998).

1.3.2 Hardiness

In the past 25 years, hardiness has emerged as a set of personal characteristics which help people turn stressful circumstances from potential disasters into opportunities for enhanced performance, leadership and conduct (Maddi, 2007). The relevance of Hardiness in a military context appears to be well documented. Previous research has suggested that in military groups, Hardiness is associated with fewer physical and mental health problems, as well as related to a transformational leadership style and better leadership performance among Norwegian Navy cadets

(Bartone, 1996, 1999; Eid & Morgan, 2006; Maddi, 2007). The recent study performed by Hystad et al. (2011), also revealed that Hardiness predicted admission to Norwegian military officer schools. Research also indicated that increasingly demanding future military operations will require military leaders to boost the overall commitment levels of their subordinates, and that the leaders scoring highly on Hardiness measures might be particularly skilled in achieving this (Bartone, 2006; Gal, 1990).

Nevertheless, although a large body of research on Hardiness has accumulated, several fundamental issues appear to be unresolved. Funk (1992) reviewed in his article Hardiness in light of theory and research, summarizing that the research studying the pathways through which hardiness exerts its effects has not been comprehensively evaluated. Further that there was also growing concern that hardiness is related to neuroticism. He also suggested that hardiness dimensions generally showed low to moderate inter correlations, and that the most common way of categorizing subjects as high or low in hardiness was not consistent with hardiness theory.

1.4 Measuring military performance and the selection of outcome variables

One challenge with performance measurement is to find valid indicators which in fact relate to organizational goal achievement; this is often referred to as the criterion problem (Borman & Motowildo, 1993). Thus variables which might constitute both generic and specific indicators of performance in the Armed Forces were selected. In the second study three different outcome variables were used, including *general military competence* as it covered general important domains such as general leadership, responsibility, cooperation / communication, judgment, writing / oral skills, creativity, and coping. Second, *specific military skills* were selected as such skills appear to be the core elements of operational conduct and thus should be specifically related to professionalism. As a third indicator *organizational*

commitment was used. Organizational commitment in a general sense may be described as the employees' psychological attachment to the organization, and may be separated from other work-related constructs such as job satisfaction. Previous research also supports a positive relationship between military professionalism and commitment in the Armed Forces (Creveld, 1990; Gabriel, 1982; Griffith, 2008). Commitment has also been found to be imperative for developing skills and effective performance in the military, leading to better results in soldiering tests, higher morale and better readiness (Faris, 1995; Gade et al., 2003; Karrasch, 2003; Moskos, 1977; O'Shea et al., 2009).

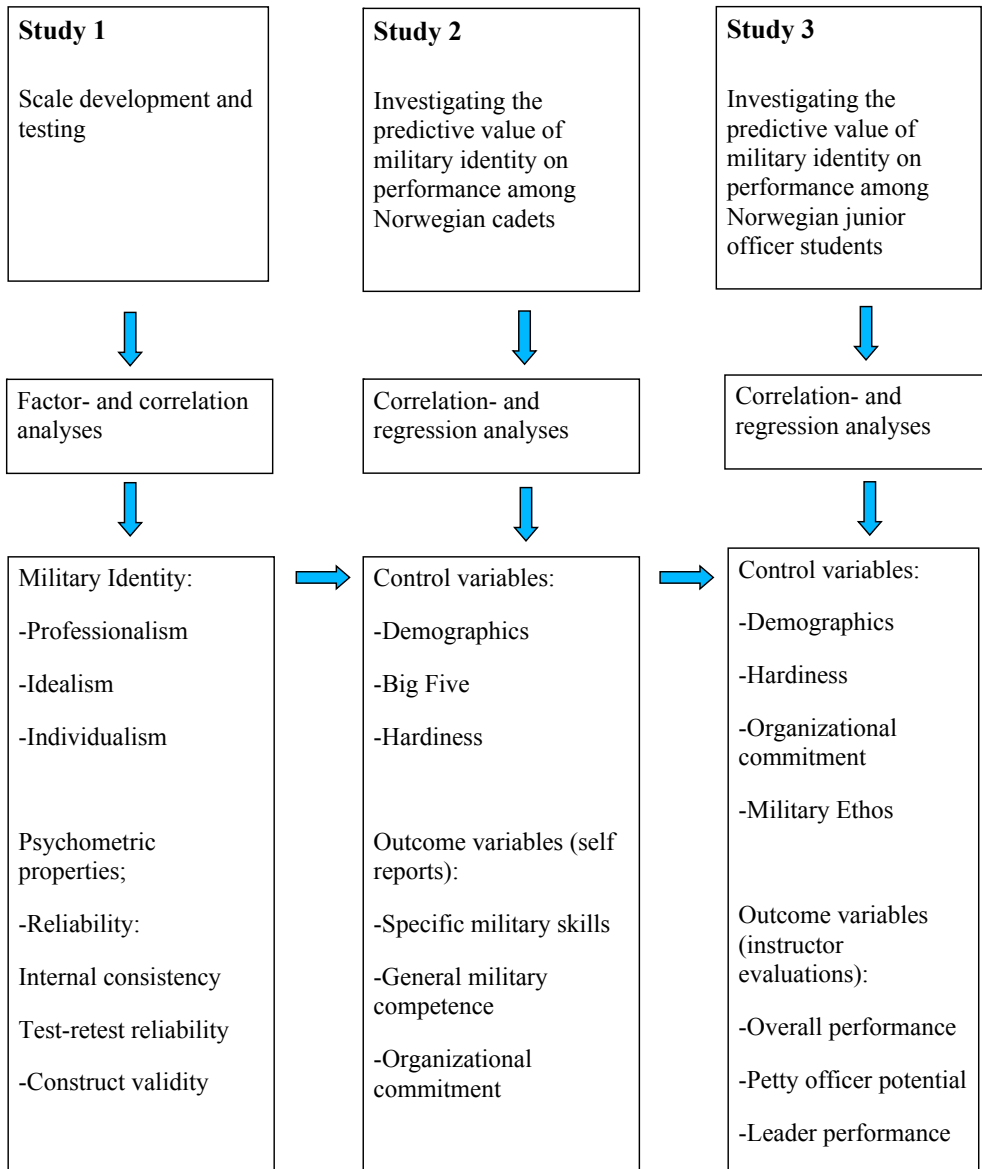
As this study measured both general military competence and specific military skills by way of self-report, it is important to emphasize that what we have actually measured in study 2 is "perceived" military competence and skills, rather than "actual" military competence and skills. Additionally, a methodological issue should be addressed, as all the chosen outcome-variables are based on self-reports, while observations by others or more objective organizational indicators are considered to be the inherently valid indicators of performance. However, Adler et al. (2005) compared self-reports with unit records among US soldiers, and found satisfactory concordance between self-reports and unit records along performance domains including demonstration of effort and soldiering proficiency, which are to some degree comparable to our own measures.

In the third study, *overall performance*, *petty officer potential*, and *leader performance* were used as performance indicators, as they appear essential across both functional and hierarchical levels in the military services. *Overall performance*, represented by average grades after completing one year education, was selected as a general performance indicator. In addition to measuring specific results achieved during the petty officer training, average grades are also an indication of general academic achievement, which is important from the perspective that the Armed Forces are an educationally intensive organization where the members alternate between practical service, training and education. Further, *Petty officer potential*, which aims to reflect military attitude, and dedication was selected. The importance

of officer potential is supported by Schumm and colleagues (2003), who found in their study of US soldiers that military dedication and bearing showed strong correlations with a number of outcome variables such as preparedness, morale and commitment. Finally *Leader performance* was selected as output variable. The amount of research carried out on military leadership is substantial, supporting its crucial importance for effective performance (Bartone et al., 2009).

1.5 The overall research model

Below, the overall research model of the dissertation is presented. All studies are based on different samples.



1.6 Thesis Aims

The overall goal of this thesis thus was to investigate possible effects of military identity in general, and Professionalism in particular, among military members in the Norwegian Armed Forces. One strategy to study identity effects could be to investigate to what degree military identity is related to, or predict certain aspects of military performance, competence and skills. In this respect, both specific and broad spectrum military service variables were selected as outcome variables. To investigate possible unique effects, a strategy was chosen to control for effects caused by more stable factors as personality traits, which have shown to predict military skills, work, and training performance.

The dissertation reports from three empirical studies, each with specific aims. As there exists no suitable instrument to measure Norwegian military identity, the first aim was to establish and perform a psychometric evaluation of a new Norwegian 33 item questionnaire. A second aim was to investigate if any individual level characteristics such as age, gender or service would be related to different identity types. In study 2, the next step was to examine if, and to what extent military identity may predict military competence and skills beyond personality traits and Hardiness. The final step covered in study 3, built on the similar design as study 2, examining the influence of military identity on military performance, and the potential of military identity to predict military performance, beyond Military Ethos, Organizational Commitment, and Hardiness.

1.6.1 Specific Aims Study 1

The primary aim in study 1 was to perform a psychometric evaluation of a new Norwegian 33 item questionnaire, measuring different dimensions of military identity. The establishing of a sound measurement appeared both vital and necessary as it would set the premises for the further investigations of possible effects. A second purpose was to investigate if any individual level characteristics such as age, gender or service would be related to different identities. This would contribute as an

initial indication of incidence and distribution of identity traits in the Norwegian Armed Forces.

1.6.2 Specific Aims Study 2

If military identity is possible to measure, it still is an open question to what degree different identity traits will have effect on certain individual performance areas. The aim of study 2 thus was to examine if, and to what extent military identity may predict military competence and skills among war college cadets, as measured by specific military skills, general military competence, and organizational commitment, beyond personality traits and Hardiness, in Norwegian military academy cadets. All output variables were measured by self reports.

1.6.3 Specific Aims Study 3

To verify and further elaborate on findings from study 2, study 3 built on a similar design. The set of control variables was extended, and new performance variables were introduced. The aim of study 3 thus was to examine the influence of military identity on military performance, measured by grade point averages, officer potential and leader performance, and the potential of military identity to predict military performance beyond attitude and personality trait variables measured by Military Ethos, Organizational Commitment, and Hardiness in Norwegian petty officer students.

2. Methods

2.1 Samples and procedure

2.1.1 Study 1

In study 1, data was collected from two sub studies:

a) This sample consisted of cross sectional data, based on 317 participants. They were recruited from six different units in the Norwegian Armed Forces to reflect variety and represent different categories, including service, branch, level of competence and age. A total of 296 (93%) were men and 21 (7%) were women, and the age varied between 19 and 55 years. Altogether 54 respondents were from the Army, 198 from the Navy, and 63 from the Air Force.

Data collection was performed as a survey study. A total of 420 copies of the questionnaire were distributed to participants and returned by regular mail or in a sealed envelope to the principal investigator. A total of 317 copies were returned, yielding a response rate of 75%.

b) The second sample consisted of longitudinal data, based on a total of 347 junior officer students, including 294 men (85%), and 52 women (15%). The average age of students was 20.3 years ($SD = 1.53$). The sample constituted 77% of the total student group invited to participate in the survey. A total of 1250 questionnaires were distributed to the students during the selection period in June 2010 (T1), and 850 complete questionnaires were returned. Then, at the end of their education in June 2011 (T2), 650 questionnaires were distributed, and a total of 432 completed questionnaires were returned. After having linked T1 and T2 data, and controlled for missing data, 238 students remained as having a complete data set.

2.1.2 Study 2

A total of 117 military cadets participated in the study, 47 from the Army war college, 28 from the air war college, and 42 from the naval war college. This included 101 males (86%), and 16 females (14%). The average age of cadets was 26 years ($SD = 3.72$). The sample constituted 75% of the total student group invited to participate in the study.

Data for the present study were taken partly from a larger study, conducted at the Norwegian War Colleges by the Armed Forces Institute for Physical Training (Norwegian Armed Forces, 2011), and partly by using a separate questionnaire. Demographical data, and data measuring Big five, Hardiness, Sensation Seeking, Specific Military Skills, and Military Competence, was collected from the Cadet Study in the spring of 2010. An additional questionnaire including the Professional Identity and Organizational Commitment scales, were distributed to the same cadets by the authors three to four weeks later, and returned to author in a sealed envelope.

2.1.3 Study 3

A total of 347 military students, at their end of petty officer education, participated in the study. This included 294 men (85%), and 52 women (15%). The average age of students was 20.3 years ($SD = 1.53$). The sample constituted 77% of the total student group invited to participate in the survey. Questionnaires were distributed to 450 of the students at the end of their petty officer education in June 2011. A total of 432 completed questionnaires were returned. School results such as the average grades, officer evaluation and leadership grades were provided by the different educational administrations. After having linked school results to the survey data, and further controlled for missing data, 347 students remained with a complete data set.

2.2 Measures and instruments

2.2.1 Study 1

Military Identity

To measure possible dimensions of military identity, we developed a measure consisting of 33 items. The instrument was partly based on items developed from theory and partly based on items used in similar studies (Franke, 1997; Jacobsen, 2005; Laberg et al., 2005). The following domains were covered: Warriorism (7 items), Idealism (9 items), Professionalism (8 items) and Individualism (9 items). All items were scored on a seven-point Likert scale (ranging from 1 = totally disagree to 7 = totally agree). Based on analyses and results from the first sub study, some modifications were conducted on the NPIS sub scales. The second version of NIPS thus consisted of three subscales; Idealism (11 items), Professionalism (12 items) and Individualism (10 items).

Organizational Commitment.

In both the sub studies, Organizational Commitment was measured using the short form of the Organizational Commitment Questionnaire (OCQ) by Mowday et al. (1979). The OCQ consists of nine items scored on a 7-point Likert scale, indicating the degree to which a person values the organization he/she works for, and to what extent he/she wishes to maintain organizational membership (alpha value; .91).

Additionally, Age, gender, service, and branch were recorded as demographic variables.

2.2.2 Study 2

Predictors

Aspects of personality

To measure certain aspects of personality, following measurements were employed;

The Big Five Inventory (Engevik & Føllesdal, 2005), including the following dimensions: Extroversion, Agreeableness, Conscientiousness, Emotional Stability, and Intellect/Openness. The inventory consists of 44 statements, rated on a 7-point Likert scale, ranging from “strongly disagree” to “strongly agree”. The internal consistency reliabilities of the sub scales ranged from .76 to .84 and were acceptable.

Hardiness was measured by the Short Hardiness Scale (Bartone, Eid, & Johnsen, 2004; Kobasa, 1979), consisting of 15 statements measuring the factors Challenge, Control, and Commitment on a 4-point Likert scale ranging from ‘not at all correct’ to ‘completely correct’. The internal consistency reliabilities of the sub scales ranged from .50 to .76. Overall alpha was .72.

Military identity was measured by a revised version of the 33-Item Professional Identity scale (Johansen, 2013), which measures the three dimensions *Operational identity/Professionalism* (12 Items – alpha; .85), *Idealism* (11 Items – alpha; .60) and *Individualism* (10 Items – alpha; .74). All scales were rated on a 7-point Likert scale ranging from ‘strongly disagree’ to ‘strongly agree’.

Outcome variables

Specific military skills: Specific military skills were primarily related to abilities required under operational and combat circumstances, and were measured by the self-rating instrument *Military Skills and Ability* (MSA), developed by Solberg (2007). The instrument consisted of 20 statements rated on a Likert scale from 1 (very bad) to 5 (very good). The instrument measured three subscales: *Individual coping capacity* (alpha = .83), *Cooperation in difficult situations* (alpha = .70), *motivation to achievement* (alpha = .78). The analysis was based on the sub dimensions’ scores respectively. Internal consistency reliabilities of the sub scales ranged from .50 to .76. Overall alpha was .78.

Military competence: Military competence was measured by an officer evaluation scale used by the Norwegian Armed Forces to rate a broad range of required military competences. The self-rating scale consisted of 10 items, covering the following respective ten domains (one item pr domain): General leadership, responsibility, cooperation and communication, technical skills, judgment, writing and oral skills, creativity, coping, and perspective. The scale was answered on a 5-point Likert scale (*less than average, slightly less than average, average, slightly above average, and above average*). The overall coefficient alpha was .80. The average score for all ten domains was used for further analyses.

Organizational Commitment: Commitment was measured using the short form of the Organizational Commitment Questionnaire (OCQ) by Mowday et al (1979). Details are specified under study 1. Alpha was .87.

Demographic variables

Additionally, demographic variables as gender and type of war colleges were recorded.

2.2.3 Study 3

Demographic variables

Gender, Previous military experience

Predictors

Hardiness was measured by the 15 item Short Hardiness Scale (Bartone, Eid and Johnsen, 2004; Kobasa, 1979), se details under study 2. The overall alpha was found to be .65.

Organizational Commitment was measured by the 9 item short form of the Organizational Commitment Questionnaire (OCQ), (Mowday et al., 1979), (alpha = .86). For further details see study 1 and 2.

Military Ethos was measured by the six item Military Ethos Scale Cotton (1981), (alpha = .53). The items were rated on a 7-point Likert scale ranging from 'strongly disagree' to 'strongly agree, and high scores indicated occupational or individualistic attitudes, while low scores indicate attitudes related to idealism and professionalism.

Outcome variables - Military performance

To capture a broad and representative aspect of the students' performance during their education, three different variables (Overall Performance, Petty Officer Potential, and Leader Performance) were selected;

Overall performance

The students' average grade (reaching from 0-5) provided an overall performance measure for this study, representing a weighted grade based on the core military subjects (e.g., leadership, ethics, weapon skills, physical skills) during the education.

Petty Officer potential

A structured evaluation process takes place during the entire education, based on numerous officer evaluations of the students during the entire education. The process is supervised by an assigned officer, who collects impressions from other instructors during the education. The supervisor also conducts three to five feedback sessions with the student as a part of the development process. The officer evaluation measures important aspects as military bearing and behavior, future potential as officer, and seeks to map and develop the students' military stamina. The impressions are then summarized and concluded by the supervisor in the end of the education, resulting in a final grade (reaching from 0-5). These grades thus constitute the Petty Officer potential measure.

Leader performance

Leader performance was measured by achieved grades based on the average of two separate scores (both reaching from 0-5); one practical score, based on achieved

results from practical tests and evaluations during exercises, leadership tasks, and instructions, and one theoretical score based on an exam. Core domains related to the students' leader performance were; duty motivation, teamwork, influencing others, ethics, planning, delegating, supervising, decision making and developing others.

Additionally, Gender and Previous military experience were recorded as demographic variables.

2.3 Statistical methods

2.3.1 Study 1

In sub study a), the psychometric properties of the NPIS instrument were evaluated by an exploratory factor analysis, using principal component analysis (PCA) with varimax rotation, and by examining internal consistency in terms of Cronbach's alpha.

In sub study b), a principal component factor analysis was run on an adjusted version of the NPIS scale, and internal consistency of the adjusted version was again examined in terms of Cronbach's alpha. The Pearson product-moment correlation coefficient and Intra-class correlations (Lo & Yen, 2002) were used to assess the test-retest reliability of the first and second version of the NPIS subscales.

Further, aspects of construct validity were assessed by investigating the predictive value of military identity on organizational commitment, and a hierarchical regression models with enter method were computed. The relationships between military identity and organizational commitment were also investigated using Pearson product – moment correlations. Finally, to examine if any individual level characteristics such as age, gender or service was related to military identity, Pearson correlations were computed between age, gender and identity. Differences in identity between services were examined with a one-way analysis of variance, controlling for both gender and service.

2.3.2 Study 2

To investigate predictive value of military identity on performance, a separate hierarchical regression models with enter method were computed for each dependent variable (specific military skills, military competence, and organizational commitment). The first step in the regression model used sex and type of war college (Army, Navy, or Air force Academy) as control variables. Two dummy variables were used to express group differences between the three participating war colleges. For step two, the Big Five personality traits and Hardiness were entered. In step three, the Military identity dimensions were entered in a separate step to test for any unique influence of military identity on the performance variables and organizational commitment after controlling for all other predictor variables. Individual predictors were only interpreted if the corresponding step was significant.

2.3.3 Study 3

Descriptive statistics and inter-correlations were computed for all study variables. Correlations were computed using list wise deletion of missing data, and Cronbach's alpha was used to estimate internal consistency for the scales included in the study. To investigate predictive value of military identity on performance, a separate hierarchical regression models with enter method were computed for each dependent variable (Overall Performance, Petty Officer Potential and Leader Performance). The first step in the regression model included gender and Previous Military Experience as control variables. For step two, Military Ethos, Organizational Commitment, and Hardiness were entered. Finally, the Professional Identity dimensions were entered in a separate step to test for any unique influence of professional identity on Overall Performance, Petty Officer Potential and Leader Performance after the effects of all other predictor variables have been controlled for. Individual predictors were only interpreted if the corresponding step was significant.

3. Results

3.1 Study 1

3.1.1 Psychometric properties of the NPIS

In sub study a) a principal component factor analysis was run on the first version of the 33 items NPIS scale. A three-factor solution emerged as the most meaningful, identifying three sub dimensions of military identity; *Professionalism*, *Idealism*, and *Individualism*. Items with cross-loadings (three items) were removed in addition to one item which were removed due to a low and negative factor loading before the three scales were constructed. Those three factors accounted for 33% of the variance.

The Chronbach`s alpha was high for one factor, “Professionalism” (.83). The two remaining factors showed alpha values at .60. Those values where considered somewhat low, but considered acceptable.

We also investigated aspects of construct validity by correlations and regression analyses. Professionalism and Individualism correlated with organizational commitment in expected directions, significantly and moderate in size. Further, a hierarchical regression analysis revealed that Military identity predicted organizational commitment, explaining a significant part of the variance in organizational commitment, after controlling for age, gender and service.

In sub study b), a principal component factor analysis was run on an adjusted version of the NPIS scale, largely replicating the factor structure identified in the first version. The Cronbach`s alpha values were replicated. To examine the stability of the NPIS version 2 over time, an intra-class correlation was calculated in addition to the test-retest reliability. Results indicated a significant and positive medium sized correlation between organizational commitment and Professionalism ($r = .41^{**}$), as

well as a small but significant negative correlation between organizational commitment and Individualism ($r = -.14$).

3.1.2 Differences in military identity between services, age and gender

From sub study a), a small, but significant negative correlation ($r = -.15$) between age and Professionalism was found, and no significant correlations were detected between gender and the professional identity dimensions. Further, a one-way ANOVA was conducted to compare scores on the three different subscales of military identity between services.

Analyses showed significant differences in Professionalism between the three services. Post-hoc tests indicated that members of the Army ($M = 5.08$, $SD = 0.72$) scored significantly higher than members of the Air Force ($M = 4.03$, $SD = 0.65$) as well as the Navy ($M = 4.19$, $SD = 0.87$). The effect sizes in terms of Hedges' g were both large (Hedges' $g = 1.58$ and 1.06) for the differences between the Army and the Air Force, and between the Army and the Navy. Analyses also showed significant differences in Individualism, where post-hoc tests indicated that members of the Army scored significantly lower ($M = 4.39$, $SD = 0.92$) than the Navy ($M = 4.70$, $SD = 0.85$). The difference was however small (Hedges' $g = 0.36$). Additionally, analyses showed significant differences in Idealism between the services, where a post-hoc test indicated that members of the Army ($M = 3.39$, $SD = 0.81$) scored significantly lower than the Navy ($M = 3.67$, $SD = 0.82$), representing a small effect (Hedges' $g = .34$).

3.1.3 Conclusion

The findings thus indicated that it is possible to measure military identity in the Norwegian armed forces, and that the NPIS shows stable psychometric properties, even over time. The most interesting results from study 1 were that the construct of military identity appears multidimensional.

Additionally, significant differences and variation in military identity across services supports previous research indicating that military identity may be both role and contextual dependant.

3.2 Study 2

Separate hierarchical regression models were computed for each dependent variable with the following results.

3.2.1 Specific military skills

The Big Five traits and Hardiness explained a significant part of the variance in specific military skills (42%) after controlling for demographics. The individual predictors Emotional stability, Intellect/openness, and Hardiness explained a significant part of the variance. Finally, Military identity added significantly and uniquely to the explained variance in Specific Military Skills (6%). The individual predictor Professionalism (Operational identity) explained a significant part of the variance.

3.2.2 Military competence

The Big five traits and Hardiness, predicted 43% of the variance in military competence, were the individual predictors Extraversion, Agreeableness, Intellect/openness, and Hardiness contributed significantly. Finally, the contribution of Military identity in explaining variance in the prediction of military competence was non-significant. The single predictor Operational identity (Professionalism), contributed significantly, but was not interpreted as the overall step was non significant.

3.2.3 Organizational Commitment

Sex and War College predicted a significant part of the variance (12%) in Organizational Commitment. Both dummy variables representing War Colleges were

significant, indicating differences between war colleges in organizational commitment. The level of organizational commitment was higher among Navy students, students from the Air force. Neither the Big Five traits nor Hardiness predicted significant amounts of variance in organizational commitment. Military identity explained 34% of the variance in commitment after controlling for other variables. Each individual predictor contributed significantly but in opposite directions, with high levels of Operational identity (Professionalism) and Idealism and low levels of Individualism, all associated with increased organizational commitment.

3.2.4 Conclusion

The results thus confirmed the predictive value of the Big Five traits and Hardiness as factors influencing military performance. Contrary to our expectations, the Big Five factor Conscientiousness was not a significant predictor of military performance. Further, results also showed differences between war colleges in organizational commitment, indicating a higher degree of organizational commitment among Naval cadets than cadets from the Air and Army colleges. A promising result from this study was that the stability of the NPIS scale was replicated with regards to both factor structure and internal consistency, and also a small increase in internal consistency for Individualism. The most interesting results however appeared to be that military identity, in particular Operational identity (Professionalism), explained military performance above the effect of both Big five and Hardiness, indicating that military identity may have unique effect on certain military performance areas.

3.3 Study 3

Three separate hierarchical regression analyses showed following results.

3.3.1 Overall Performance

Demographic variables (Gender and Previous military experience), explained a small but significant part of the variance in Overall Performance (1.8%). Further, the contribution of Military Ethos, Organizational Commitment and Hardiness in step 2, explained a small but significant part of the variance (3%) where the individual predictors Organizational Commitment and Hardiness were both significant. In step 3, Military Identity explained a significant part of the variance in Overall Performance (3%), after controlling for all other variables. Of the individual predictors, only Professionalism was significant, where higher levels of Professionalism were associated with increased level of Overall Performance. Individualism did not explain any significant part of the variance in overall performance.

3.3.2 Petty Officer Potential

Gender and Previous military experience were again entered in the first step as control variables, and explained a significant part of the variance (6%). The individual predictor Gender explained a significant part of the variance, indicating differences between males and females in Petty Officer Potential, where the level was highest among the males. Previous military experience also explained a significant part of the variance, indicating that students with previous military experience scored lower than those without. The contribution of Military Ethos, Organizational Commitment and Hardiness in step 2 was also significant (4%), where the individual predictors Organizational Commitment and Hardiness were both significant. Finally, the contribution of Military Identity on step 3 was non-significant.

3.3.3 Leader Performance

Gender and Previous military experience were entered on the first step as control variables, predicting a small and non-significant part of the variance in Leader Performance. In step 2, Military Ethos, Organizational Commitment and Hardiness

did not predict significant amounts of variance in Leader Performance, nor did Military Identity in step 3.

3.3.4 Conclusion

Results from study 3 showed that Hardiness as single predictor explained significant variance on all of the three performance variables, converging with previous research (Bartone et al., 2002, 2009; Eid and Morgan, 2006; Gal, 1987; Maddi, 2002, 2007), reinforcing its value as a well known predictor of military performance. However, the level of measurement in study 2 was the Hardiness subscales, while in study 3 the General Hardiness scale was employed.

The weak, but however significant negative contribution of Organizational Commitment on overall performance and officer potential was unexpected and opposed to previous research findings.

Military identity again showed to predict aspects of military performance, where Professionalism predicted overall performance. The selection of a different set of performance variables in study 3, thus confirm the unique contribution of Professionalism on military performance.

4. General Discussion

The overall aim of this dissertation thus was to investigate possible effects of military identity in general, and Professionalism in particular, among military members in the Norwegian Armed Forces. All three studies reported in this dissertation addressed this question from different point of views. As all articles rely on the NPIS scale, the first part of the discussion is primarily focused on methodological issues regarding the scales' psychometric properties. The second part of the discussion is concentrated around the predictive value of military identity.

4.1 Can military identity be measured? Psychometric properties of the NPIS scale.

In order to study changes in military identity in relation to individual and organizational variables, a measurement instrument was required. The main purpose of study 1 was, therefore, to perform a psychometric evaluation of a newly developed 33 item questionnaire, performing an exploratory factor analysis, assessing internal consistency and test-retest reliability, and to investigate aspects of construct validity.

4.1.1 Exploratory or confirmatory factor analysis?

Exploratory factor analysis (EFA) could be described as orderly simplification of interrelated measures, and has traditionally been used to explore the possible underlying factor structure of a set of observed variables without imposing a preconceived structure on the outcome (Child, 1990), or to determine the ability of a predefined factor model to an observed set of data (DeCoster, 1998). EFA identifies the nature of the constructs underlying responses in a specific content area, determine what sets of items which belong together, or demonstrate the dimensionality of a measurement scale when the researcher wishes to develop scales.

Confirmatory factor analysis (CFA) on the other hand is a statistical technique used to verify the factor structure of a set of observed variable, or to determine the ability of a predefined factor model to an observed set of data. CFA thus allows the researcher to test the hypothesis that a relationship between observed variables and their underlying latent constructs exists, and the researcher uses theoretical knowledge, empirical research, or both. The primary objective of a CFA thus is to establish the validity of a single factor model, or to compare the fit of different models to account for the same set of data.

The tested questionnaire which measured dimensions of *military identity* consisted of 33 items, partly based on theory, and partly by items used by Franke (1997), and Laberg et al. (2005). As no explicit theoretical basis exists, which exactly describes the sub dimensions of military identity, the selected items were therefore still considered as a starting point for further analyses. Thus an exploratory analysis was thus chosen to investigate possible factor structures rather than confirmatory factor analysis.

4.1.2 Extraction of factors and rotation

In sub study 1a), a principal component analysis with varimax rotation was performed. An inspection of the Scree plot revealed a break after the fourth component, and based on Cattell's (1966) Scree test, a four component solution was retained for further investigation. Further analysis revealed that items belonging to Professionalism and Warriorism generally loaded on the same component, and a three-component solution was therefore investigated.

Costello and Osborne (2005), and Preacher and MacCallum (2003) have criticized the "all to common" use of Principal component analysis as it does not discriminate between shared and unique variance and error variance to reveal the underlying factor structure. Thus, to investigate possible improvements regarding factor structure, possible changes in factor loadings and accounted variance, new analyses were performed using Iterative principal axis factoring extraction and Oblique rotation

technique. However, minimal changes from the results based on the original applied analysis techniques were detected. The factor structure appeared the same, and changes in factor loadings were negligible. Additionally, no increase in accounted variance was detected. Follow-up analyses from study 1 b), 2 and 3, also replicated the same three factor solution found in sub study 1 a).

4.1.3 Reliability, is the internal consistency of the NPIS satisfactory?

A common reliability index for self-report measures is internal consistency in terms of Chronbach`s alpha. Various authors have offered guidelines or rules of thumb regarding standards or minimum levels of acceptable reliability coefficients. A common recommended limit of Chronbach alpha value is $> .70$ (Chronbach & Meehl, 1955). Nunnally (1967, 1978) argued that relatively low reliability coefficients are tolerable in early stages of research (e.g., $.50$ or $.60$). However, Nunally (1978) later adjusted the minimum level of acceptable reliability to $.70$. Heath and Martin (1997) also suggested that alpha values should be at least $.60$. In sub study 1 a), two of the subscales (Idealism and Individualism) showed alpha values of 0.6 after item removal procedures (3 items removed from each subscale), and the subscale (Professionalism) reached the recommended limit of $> .70$ (Chronbach, 1990). In study 1 b) some minor adjustments were conducted regarding the scale items, resulting in a modest increase of Chronbach`s alpha values in the sub scales in both study 1 a), 2 and 3. As the scale is considered to be at an early stage, alpha values were considered tolerable. Additionally, the most interesting subscale for the further analyses was the Professionalism and Individualism, which both exceeded alpha values of $.70$ in study 2 and 3.

Besides the size of the Cronbach alpha coefficient a rule of thumb for a minimum level of acceptable reliability could be determined as the item-total correlations equal or exceed $.20$ (Nunally, 1967; Pehazur & Schmelkin, 1991). Study 1 a) showed that for the Idealism sub scale, the item-total correlations varied between $.24$ - $.40$ after item removal procedures. For the Individualism sub scale, the item-

total correlations were between .23 - .39 after item removal procedures. Further, an inspection of the Item-total statistics revealed that additional removal of items would not increase internal consistency in terms of Chronbach's alpha. Reliability regarding those two sub scales was thus regarded satisfactorily for conducting further analyses, and that further removal of items would not improve the reliability. A possible explanation for the low alpha values of the Idealism and Individualism dimensions could be that some of the items measure aspects which lie outside the constructs. Thus as an initiative to improve the Cronbach alpha values, other, or more items which measure the same or different substantive areas within the single dimensions, could thus be added.

4.1.4 Validity of the NPIS scale

Validity is a property mainly concerned with the interpretations and meanings of scores, rather than the test itself. In all studies, construct validity was examined by studying whether the NPIS sub scales correlated with related measures (Organizational Commitment). In all three studies, Professionalism showed significant and positive medium sized correlations with Organizational Commitment. Further, Individualism showed significant and negative small to medium correlations with Organizational Commitment through all three studies.

4.2 Are individual characteristics such as age, gender or service related to different identities?

From study 1, we found that members of the Army scored significantly higher on Professionalism than did Air Force and Navy participants. The differences were large. This result is somewhat surprising given the expectation that professionalism is the future joint identity in the Armed Forces. If this expectation should be proven correct, members of the Army, Air Force, and Navy should appear more similar with regard to Professionalism. One explanation could be that the doctrinal construct of Professionalism actually appeals more to Army than to Air Force and Navy members.

Further, the doctrinal definition also appears to emphasize the conduct of international operations, and may correspond more directly to the Army service. Analyses also indicated that the Army scored significantly lower on Individualism than the Navy. This result is more difficult to explain and contradicts Jacobsens' (2005) findings, which indicated that Navy officers showed significantly less individualistic tendencies than Army officers. On the other hand, Boëne and Martin (2000) conducted a study in the French Armed Forces, and found that officers in the Army, kept a traditional and institutional perspective, while non commissioned and large part of the Navy and Air Force kept a more occupational perspective. Further, the fact that different identity dimensions appear to exist within the same organization is in line with Social Identity Theory and with Social Categorisation Theory, which suggest that people categorize themselves as members of certain social groups at different abstraction levels, or as unique individuals (Wagner et al., 2005). However, these results need to be replicated in future studies.

4.3 Does military identity predict aspects of military performance and skills?

The objective of the two remaining studies was to examine whether, and to what extent, aspects of military identity did predict perceptions of military performance and skills (attitudes) among Norwegian military cadets (study 2) and among Norwegian junior officer students (study 3). In study 2 we found that Professionalism (Operational identity, measured by the same scale, but differently mentioned) positively increased the prediction of specific military skills and organizational commitment beyond the variance explained by the Big five traits and Hardiness. We also found that Individualism negatively increased the prediction of organizational commitment beyond the variance explained by Big five and Hardiness. Furthermore, in study 3 we found that Professionalism positively increased the prediction of overall performance beyond the variance explained by military ethos, hardiness, and organizational commitment.

As previous research on these issues appears scarce, this dissertation offers new insight about the interplay between military identity and areas of performance. This knowledge may in turn form the basis of theoretical and practical developments, both for Norway in particular, and for comparable nations such as western NATO members in general.

First of all, the significant positive relationship between professionalism and performance (specific military skills and organizational commitment in study 2, and overall performance in study 3) is encouraging. It supports the expected positive outcome of professionalism as hypothesized. It also runs counter to previous unsuccessful attempts to establish a link between role-specific identity and performance presented by Grojean and Thomas (2006). Second, the findings also indicate a negative relationship between Individualism and organizational commitment (study 2) which also was hypothesized and expected in study 2 and 3.

4.3.1 Professionalism – pros and cons

First, despite that Professionalism coincide with the Norwegian military doctrinaire conception of the construct, it obviously fall short in some important ways. It appears to favour the war-like component of the conflict spectrum and the warrior role of the soldier. Thus Professionalism could be dysfunctional in operations focused on other parts of the conflict spectrum, where different qualities may be required, as well in non-operational parts of the Armed Forces.

As such, its general relevance could be discussed. This may also explain why Professionalism predicted specific military skills in study 2, which can be regarded as a pure operational measure. Further in study 2, Professionalism was negatively related to general military competence. This was unexpected, but also somewhat worrying, as general military competence covers domains which are vital for the successful conduct of officership. An explanation might be that participants lacked the experience required to adequately and accurately assess their own capabilities. A

more concerning explanation could be that students with a higher degree of Professionalism are in fact less suitable as officers.

From both study 1 and 2, we also found that Professionalism predicted organizational commitment. As previous studies have summerized (Mathieu & Zajac, 1990; Meyer, Jackson, & Maltin, 2008), organizational commitment is positively related to increased job performance at an individual level, and to greater well-being and lower turnover rates. Our findings, indicating a strong and significant prediction by Professionalism of organizational commitment, should therefore be regarded as promising, while also verifying previous findings (Creveld, 1990; Griffith, 2008; O'Shea et al., 2009) which indicate a positive relationship between aspects of military identity and organizational commitment in the Armed Forces.

Furthermore, from study 3, we found that Professionalism predicted overall performance in terms of the students' average grades as hypothesized. As the average grades could be viewed as an overall performance measure for the education, these results should also be regarded as promising.

In study 3, we also hypothesized that Professionalism would predict leadership performance. However, this was not the case. Few studies have explored similar relationships, but in a study of U.S. company commanders' priorities related to their soldiers psychological readiness, Bartone, Faris, and Marlowe (1993) found that soldiers whose commanders emphasized combat skills to the relative exclusion of moral, showed lower commitment, less confidence, lower general well being and less work satisfaction. Thus, as far as Professionalism emphasizes combat skills, future leaders scoring high on Professionalism may not necessarily perform the best leadership of leader- or officership. It also coincides with the findings from study 2 which indicated a negative relationship between Professionalism and general military competence.

Despite that Professionalism appeared as a statistically significant predictor of specific military skills and organizational commitment (study 2), as well as overall performance and petty officer potential (study 3), the overall amount of variance accounted for was modest, leaving much of the variance unexplained. However, it is a mistake to conclude that a modest R^2 indicates an unimportant finding (Sackett et al., 1986). Nevertheless, the search should continue for additional predictors of performance, such as ability, personality and motivational variables.

4.3.2 Individualism

Results from both study 2 and 3 revealed that Individualism failed to predict the selected outcome variables, with the exception of organizational commitment in study 2. This was somewhat unexpected as previous research has indicated that a military identity based on individualism might negatively affect individual performance (Faris, 1995; Griffith, 2008).

One explanation may be related to our specific performance criteria. Angle and Lawson (1994) found that attitudinal measures correlated only with aspects of performance which required motivation, and not with ability. In general, the selected outcome variables are based on academic abilities, physical ability and attitudes as well on general leader abilities. Therefore, the criteria used here may be multidimensional in nature.

Another explanation could be that the internal consistency of the Individualism sub scale was somewhat low, ranging from .63 in study 2, to .74 in study 3. This low reliability may in turn have contributed to attenuate the observed correlations. On the other hand, the fact that Individualism predicted organizational commitment negatively in study 2 adds further knowledge of possible negative outcomes of individualistic attitudes in the Armed Forces. It also underlines the presumption that individualism could be inconsistent with productive military service at the individual level. Thus, initiatives to prevent the development of Individualism should be

considered alongside the fostering of high levels of organizational commitment, in recruitment through training into ordinary service.

On the other hand, despite that the influence of individualistic and postmodern values on the Armed Forces has been examined in several countries (e.g., Battistelli, 1997; Battistelli, et al., 2000; Boëne & Martin, 2000; Moskos, et al., 2000), it seems hard to establish a clear picture. As such, it is not necessarily given that individualistic and postmodern values are solely negative for the Armed forces. Thus further research on the effect of Individualism should be carried out. Both by developing the construct, as well as further refining of the sub scale. Future research should also explore additional measurements of military performance, extended to contexts outside the educational environment.

4.3.3 What about Idealism?

We did not hypothesize any effects of Idealism on the selected outcome variables in study 2 and 3. In general, this also showed to be the results, with exception of study 2, where Idealism predicted organizational commitment. However, it should be highlighted that results from all studies indicated that Idealism as a construct appears difficult to establish and operationalize, as both the initial as well as the refined version of the Idealism sub subscale revealed marginal internal consistency, actually never exceeding .60. The seemingly problem to establish this construct may be due to its` possible overlap with Professionalism, which also is discussed in study 1. From the theories of Moskos and his Institutional-Occupational model (1977, 1988), the institutional perspective, to a certain extent, covers both the domains of Professionalism and Idealism. In this respect, the construct of Idealism could be more complex than initially expected, which in turn may have influenced both the correlations as well the regression results.

4.3.4 Sustained trust in Hardiness as predictor of military performance.

In both study 2 and 3, Hardiness was employed as a control variable, as it previously has shown to be a predictor of many broad aspects related to military performance (Bartone et al., 2002, 2009; Eid & Morgan, 2006; Maddi, 2002, 2007). The findings from both study 2 and 3 thus confirm the predictive value of Hardiness as an important predictor of military performance, strengthening the already existing empirical findings, as well as its` theoretical basis in this field. To add more practical value to these findings, using Hardiness as a tool in military selection procedures as well during education thus appears relevant and recommendable.

5. Limitations and future studies

Both study 2 and 3 are based on a cross sectional design, which means that no firm conclusions can be drawn as to causality. Study 2, and partly study 3, also relied on self-report measures, which may increase common method variance (CMV). When the same rater responds to the items in a single questionnaire at the same point in time, survey data are likely to be susceptible to CMV (Kemery & Dunlap, 1986; Lindell & Whitney, 2001). This may be resolved in future studies by including more objective measures of performance. Further, study 2 and 3 relies on data collected from young service men and women conducting military education with limited to no work experience. As several of the outcome variables (leader performance, specific military skills and military competence) may be affected by relevant, practical experience, responses on those variables may be biased by the students' lack of such. Thus future research should include respondents from a broader spectrum of the Armed Forces, especially the operational part.

Despite the identification of statistically significant predictors of specific military skills and organizational commitment (study 2), and overall performance and petty officer potential (study 3), the overall amount of variance accounted for is modest, leaving much of the variance unexplained. Nevertheless, the search should continue for additional predictors of performance, such as ability, personality and motivational variables. Another possible explanation for the relatively weak associations between the predictors and the military performance measures may be poor criterion reliability. Further, the selected variables only capture certain aspects of performance in an educational setting. Thus, future research should explore additional measurements of military performance, extended to contexts outside the educational environment. In this respect, a recent study should be noted, where Kvilvang (2012), employed the NPIS to explore the relationship between military identity, work engagement and burnout among professional soldiers and officers in the Norwegian Army Rapid Reaction Force ($N = 210$). This force certainly represents

the ultimate characteristics of an operational force. The study revealed that Professionalism predicted work engagement positively ($\beta = .33^{***}$), and also that Individualism predicted work engagement but in the opposite direction. Additionally, Individualism predicted burnout ($\beta = .27^{***}$). Those findings thus support our own studies, and add practical substance to military identity as performance indicators. Kvilvangs` study thus supports / strengthens the NPIS as a valid instrument, and also supports our findings with regards to positive effects of professionalism as well as negative effects of individualism.

5.1 The NPIS instrument

The dissertation to some extent rests on the validity and reliability of the NPIS scale. Despite the appearance of three dimensions, and that the instrument showed adequate psychometric properties, it still must be regarded to be at an early developmental stage. Further research should thus be conducted to further refine the subscales in terms of internal consistency as well as studies to examine the construct and predictive validity of the scales. Despite acceptable values on an early stage, the medium Cronbach`s alpha values for two of the dimensions, Idealism and Individualism, indicate a need for further development of the constructs, including possible regrouping of items included in the current survey, in addition to the deletion and addition of new items. This could imply refinement, removal, or adding new items. On the other hand, as the refinement of the initial version did not result in a sufficient improvement of the internal consistency, it underlines the complexity of the phenomena, and also indicates that the constructs of Idealism and Individualism is difficult to establish. A retrenchment of the constructs could thus be one solution. However, adopting a view of military identity as comprising dimensions and not categories allows the analysis of specific items and their clustering, which provides valuable information regarding the distribution or composition of different elements of the phenomena.

The NPIS scale thus shows that it is possible to measure military identity, and stands as the first validated measurement in a Norwegian context. In this respect, it contributes with both new theoretical insight as well as a practical added value in the cross-over between military sociology, psychology, and performance. The creation of the NPIS has yielded a measurement tool available to researchers in general, and to Norwegian researchers in particular. Considering that the current doctrine dictates an altered military identity for the Norwegian Armed Forces, the NPIS allows researchers to explore important cross-sectional as well as longitudinal aspects of military identity. In addition to these practical applications, the NPIS addresses fresh knowledge, and important theoretical paradoxes in the domain of military sociology. The development of the NPIS will hence contribute to further debate, exploration and validation of the construct of Norwegian military identity.

5.2 Mapping unique variance, the selection of suitable control variables

To investigate the unique contribution of military identity, personality variables as the Big Five traits and Hardiness, which has shown to predict military performance were selected as control variables in study 2 and 3. As recent research indicates that intelligence, or general ability, appear to be the best predictor of a number of performance ranges as job performance and learning, academic performance (Chamorro-Premuzic & Furnham, 2008; Ree & Earles, 1992; Strenze, 2007), using intelligence or general ability measures as control variables could have strengthened the thesis results. This possibility was considered, but not employed due to lack of available suitable data. Thus future studies should consider the employment of general ability measures as control variables.

5.3 Measures, criterion problems, and objective data versus self- reports

One of the challenges in measuring competence and skills is to choose reliable and valid indicators which in fact support an organization towards obtaining its goals, often referred to as the criterion problem (Adler, Castro, & Thomas, 2005). One strategy to overcome this issue would be to seek variables which constitute both generic and specific indicators of competence and skills in the Armed Forces. For both study 2 and 3, a variation of variables were selected to represent functional as well as hierarchical levels in the military service.

A methodological issue should also be addressed, as most of the chosen outcome-variables are based on self-reports, while objective indicators are considered to be the most reliable and inherently valid indicators of performance. However, Adler Castro and Thomas (2005) compared self-reports with unit records among US soldiers, and found satisfactory concordance between self-reports and unit records along performance domains including demonstration of effort and soldiering proficiency, which are to some degree comparable to our own measures. As most of the outcome variables in both study 2 and 3 is based on self-report, it is also important to emphasize that what we have actually measured is “perceived” military competence and skills, rather than “actual” military competence and skills.

6. Conclusion

The scope of this dissertation was to investigate possible effects of military identity in general, and Professionalism in particular, among military members in the Norwegian Armed Forces.

The findings from study 1 indicated that it is possible to measure military identity in the Norwegian armed forces, and that the NPIS showed stable psychometric properties, even over time. The most interesting results from study 1 were that the construct of military identity appeared multidimensional. Nevertheless, the search should continue for both developing the NPIS scale, especially related to improvement of the Idealism and Individualism sub scales.

Additionally, significant differences and variation in military identity across services supported previous research indicating that military identity may be both role and contextual dependant.

The findings from both study 2 and 3 indicated that military identity, in particular Professionalism, explained military performance above the effect of personality traits as Big five and Hardiness, indicating that military identity may have unique effect on certain military performance areas. However, additional work is needed to explore and evaluate the potential value of professionalism, which should include additional predictors of performance, such as ability, personality and motivational variables. Further research should also investigate the stability and development of this relationship over time, especially focusing on the transition from an educational setting to professional life.

Source of data

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