Educating peacekeepers
Problems experienced during deployments and deficiencies in preparation for PSO

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Abstract

In this article the correlation between the problems military personnel encountered during peacekeeping operations and the deficiencies they experienced during their education/training prior to deployment is analyzed. Education and training should be designed in such a way that the kind of problems soldiers are most likely to meet in a certain mission are taken into account. Mission-oriented training should be tailor-made to fit specific missions. Language, communication, diplomatic and military skills should be part of every course. Academic training in military academies should provide a broad basis, comprising a general and diverse range of disciplines that prepares aspirant officers not so much for a specific mission but that enables them to solve unexpected problems that may arise from unanticipated situations. A mix of disciplines is necessary, for it is impossible to know in advance what problems may come up. Most probably the officer will be confronted with several problems at the same time. This is why multi-disciplinary education is to be preferred. General analytic academic skills, lateral thinking and creativity are skills flexible officers of the (near) future need to develop.

Introduction

The last decade has brought drastic changes for the military, the most pervasive of which was the increased focus on peace-enforcing and peacekeeping operations as well as disaster relief and humanitarian aid. For many armed forces Peace Support Operations (PSO) have become their primary task or even their raison d'être in the post-Cold War era. With PSO holding such a prominent place in their mission focus, the armed forces realize that they have to develop knowledge of and skills for these operations. An important issue for the armed forces and their military role is the shift from the use of force against an enemy to the interposition as a 'third' party between opposing parties. This shift brings about great changes for the military units and their commanders and they realize they have to be adequately equipped and prepared for these new tasks.

Scientific knowledge and understanding of the human factor in these operations is still in its infancy (Essens, Vogelaar, Tanercan, Winslow, 2001). Much effort should be devoted to developing theory and models for predicting performance and effects. In addition, instruments are needed to select, train, and develop military units and their commanders properly for these operations. This article aims to contribute to the existing body of knowledge regarding the preparation for PSO.

Changes in operational characteristics

A number of authors stress the difference between PSO and war operations. Dixon (1993) adopts an interesting approach. In comparing PSO with war operations - the only kind of operations for which commanders actually prepared themselves until a few years ago - he identifies a number of differences that have far-reaching implications for the skills of commanders. Dixon states that PSO, like war, can be described by such aspects as object, aim, ways, and means, and this will yield a number of criteria for military leaders performing PSO.

According to Dixon, the object of war is the imposition of the will of one party on its enemy. The object of PSO, however, is eliminating the causes of instability through some forum that settles the issue and maintains order. The issue in PSO relates to political and societal actions rather than the employment of military forces for traditional national purposes. According to Dixon, a tactical leader must, therefore, understand that '...the greatest military consideration ... is the non-military objective of the operation'. (Dixon, 1993: 7) This requires the tactical leaders to consider and assess the political consequences of the actions they contemplate.

Secondly, the aim in war is rendering an enemy powerless. The aim of PSO is to prevent competing groups from creating a situation of uncertainty or anarchy. The parties should retain their power, however, exclusively for constructive purposes. The actions of the peace support units should enable the various groups to maintain a semblance of power or control and resolve the situation by other means. Providing support to existing organizations is central to the development of acceptable courses of actions during PSO. Therefore, the plan should focus on stabilizing the situation and establishing the conditions that allow existing or previously functioning organizations to perform their tasks. This requires tactical commanders to interact extensively with many external groups. The tactical leader must comprehend and facilitate the actions of these groups. He must also have such an awareness of the culture of the society and its organizations in which the operations take place, that he/she can foresee potential consequences of his/her actions. Only by understanding the uniqueness of each situation and the groups involved, can the leader possibly stabilize the situation in order to resolve the crisis by means other than force.

Thirdly, whereas war inherently focuses on destruction, PSO must stress the avoidance of destruction. According to Dixon, the conduct of operations in PSO must be styled in such a way that existing damage is lessened or repaired, while simultaneously measures to prevent a continuation of destruction are taken. An overwhelming or inappropriate use of force can be counterproductive and worsen the situation. As Swannack and Gray (1997) state, all actions of the unit must be seen as neutral, altruistic, and supporting the peace process in order to gain the local inhabitants' trust and

confidence. For the operation it could help, however, when the tactical leader ensures that the groups involved understand the capabilities of the intervening force by showing its strength and determination.

Fourthly, whereas the means of war consist of force, those of PSO should encompas compromise and moderation of violence. In these operations, a measured level of force, appropriate to the situation, is the proper response. As Manwaring (1998-99) states, the blunt force of military formations could be counterproductive, whereas the more subtle use of 'soft' political, economic, psychological, and moral power - supported by information operations, careful intelligence work, and surgical precision at the more direct military or police level - would be imperative. Force should only be used in order to halt incidental acts of violence. Military forces should be very careful not to be drawn into large-scale battles with one of the parties. Therefore, negotiation rather than violence should be the norm for resolving the crisis. According to Dixon, tactical leaders, although still warriors, must become negotiators and mediators, reserving the use of force to the last resort. For the tactical leader it means that he or she must realise that the decisive element is not military force. Furthermore, he or she should be aware of the fact that the use of force will change the nature of the environment and potentially undermine the accomplishment of the object. Unwarranted violence applied by the peacekeeping force can turn all the parties against the intervening force. According to Lester (2001), successful commanders therefore demonstrate good judgement and understanding of use of force and diplomacy.

A fifth criterion should be added to object, aim, ways and means: co-operation. Today, commanders of many Western armed forces find themselves co-operating with units from the former Warsaw Pact countries, Southern Europe, and even Third World countries. But not only that, besides working with military allies and the former warring parties, the intervening force also has to work with the existing local Governmental organizations, with Civilian and United Nations Police Organizations and with Non-Governmental Organizations (NGOs). It is well-known that all parties involved have their own interests, customs and culture, follow their own procedures and structures, and in many cases have their own language. On top of all that there is close media coverage. Working together with many different organisations is a relatively new phenomenon for military commanders and what they need is an open mind towards other cultures and people with very different backgrounds (professional or other) in order to be able to make the co-operation successful.

The difference between war and PSO has fuelled a debate amongst scholars and the military which has greatly stimulated the development of theoretical models and ideal typical approaches of the soldier's tasks and identity. Janowitz (1971) hypothesizes a change from the warrior type of military to a constabulary force where the soldier is a

'manager of violence'. Burk and Moskos (1994) and Soeters (1998) extend the metaphor even further, and speak of the 'soldier-diplomat', the 'soldier-scholar' and the 'soldier-communicator'. These ideal types epitomize the development in tasks and task identity of the military that is caused by the increased importance of PSO.

Attitudes towards PSO and the need for change
Experiences in the early nineties proved that adjusting education and training to the new tasks is necessary indeed. Many soldiers had and still have an ambivalent and sometimes even hostile attitude towards the peacekeeping task. (Miller, 1997) Reports of positive attitudes, as in the case of Portuguese peacekeepers (Carreiras, 2000), are exceptional. In many cases where norms and values became blurred, the warrior-attitude appeared to be dominant. (Horvat, 2000; Kernic, 1998; Johansson, 1997, 2001; Winslow, 1997, 1998) The warrior-attitude even hampered the aims of PSO, resulting in misbehaviour and hostility towards the indigenous population, whereas a more humanitarian attitude would have proved to be advantageous to the performance of peacekeepers (Miller and Moskos, 1995). Francke (1997) concludes that, in order to meet the requirements stemming from PSO, to mend negative attitudes and to improve performance, the training and education of the next generation of military leaders will have to change.

Changes in required education and training
One of the changes entails that commanders need to be educated and trained more broadly than ever. Officers do not only have to be able to conduct a military operation, they should also have an understanding of political and societal developments in the countries to which they have been deployed for PSO. In addition, the commanders should be able to make decisions on a large number of civilian tasks that have to be performed in the peace-building stage of an operation. Furthermore, they must possess a knowledge of the background and the cultural aspects of the mission, which implies an understanding of the traditions and values of the different ethnic groups, the causes of the war, the current political situation and UN's role in it. They should clearly understand why the mission is important in the broader international perspective and support the goals and meaning of the mission. Moreover, the soldiers need better and/or more training in negotiation and conflict resolution techniques and master the local language to a certain extent. Being broadly educated should guarantee an open mind when they have to deal with a variety of problems. The British Doctrine Committee (1999) assumes that the British armed forces will be involved in conflicts in which psychology

is as important as technology, and where cross-cultural, socio-psychological means will be required to create the conditions for peace. In the same document, it is also stated that the increasing complexity and diversity of the future security environment will demand an increasing range and depth of skills, possibly including those that have not been anticipated and included previously. Cross-cultural awareness and language training will become more important along with the ability to deal with agencies in the area of conflict. Commanders have to work together adequately with a great variety of organisations with many different backgrounds, procedures, and cultures. These aspects of military operations require much of the general education of officers. To further this general education, commanders have to prepare their units in such a way that they can work effectively under varied circumstances. These developments mean that officers should be broadly educated in a large number of disciplines to be able to create flexibility of thinking when required (Caforio, 2001, 2003).

Present study
The present study departs from an international perspective, gathering data from as many as ten nations, and it specifically investigates the correlation of problems encountered during PSO with the deficiencies experienced. The following questions will be answered:

1. What kind of problems do officers meet during deployments?
2. What kind of deficiencies did officers experience in their academic and practical preparation?
3. Are the problems encountered during deployments and the deficiencies experienced in the preparation for PSO correlated?

After a brief discussion of the methodology, the article continues with the analysis of the above questions. In the conclusion several recommendations will be offered for fine-tuning future missions and required education and/or training.

Method

Participants and procedure.
In order to answer the research questions the data collected by Caforio et al. (2001) are used. These data form part of an international comparative research by a team of researchers. The questionnaire used to gather the data was administered to a sample of

officers from all Services of ten different nations who have taken part in different kinds of PSO (Bulgaria, France, Hungary, Italy, the Netherlands, Poland, Russia, South Africa, Sweden and the United States of America). A minimum sample of 30 officers, preferably of various ranks, who have participated in PSO was required for each nation. The researchers administered the questionnaire in a timeframe that ran from June 2000 until September 2000. Of the 416 questionnaires that were administered, 408 were

Table 1:   sample sizes

Country	Frequency (sample size)	Percent
Bulgaria	19	5,5
France	21	6,1
Italy	49	14,1
Netherlands	37	10,7
Poland	17	4,9
Russia	19	5,5
South Africa	111	32,0
Sweden	23	6,6
USA	26	7,5
Hungary	25	7,2
Total	347	100,0

useful for the purpose of this research. A preliminary analysis showed that there is an overrepresentation of army officers (85% army officers). Therefore, a deliberate choice was made to analye only army officers. This brings the number of questionnaires suitable for analysis down to 347. Table 1 gives the sample sizes.

Measures
The questionnaire consists of 34, mainly closed, questions that are grouped into five sets: the officers' experiences, satisfaction, education, socio-demographic data and 'being outspoken' (to give each respondent the possibility to add personal comments and observations). The officers' experiences (the problems they encountered during PSO) and their perceptions of deficiencies in preparation for PSO are important for answering the research questions. The items used for measuring the problems the officers met during PSO are subdivided into a set that indicates the problems with civilian

counterparts and local parties and in a set of items dedicated to the problems with officers of other nations. The sets of questions contain the following items:

1. Did you face any difficulties in your relationship with civilian counterparts? If so, what kind of difficulties? The respondents could respond to the following possibilities (dichotomous variables): communications problems, language problems, different frame of mind, bad faith / disloyalty, pursuing personal profit, partisanship, making rules observed, keeping freedom of movement and other difficulties.

2. Did you face any difficulties in your relationship with officers of contingents from other countries? If so, what kind of difficulties? Respondents were asked to reflect on the following possibilities (dichotomous variables): interoperability problems, ethic code problems, diverging interpretations of mission, diverging interpretations of ROE, divided loyalties, professional preparation problems, language, communication problems, cultural differences, rivalries and other difficulties.

Two subsets of items were intended to measure deficiencies in preparation. The first set related to academic education, whereas the second set was devoted to the issue of training. The items used were:

1. Did you experience any deficiencies in your education with regard to the particular features of PSO in which you took part? If so, in which topic? The following possibilities (dichotomous variables) were offered: international law, international affairs, history, psychology, sociology, languages, religion, economics, mass communication techniques, intercultural management techniques and other topics.

2. Did you experience any deficiencies in your training with regard to the particular features of PSO in which you took part? If so, in which topic? The officers could respond to tactics, logistics, topography, leadership, administration, communications, regulations and other topics (dichotomous variables, multiple answers were allowed).

To answer the first two research questions (problems encountered and deficiencies experienced) frequencies were calculated. The third question was answered by making use of factor analysis and correlation techniques. Factor analysis is used to reduce data and discern clusters of variables. The next step in the analysis was to correlate the 'problems' factors with the 'deficiencies' factors.

Experienced problems during deployments

In response to the question: 'Did you face any difficulties in your relationship with civilian counterparts?' army officers from all participating countries indicated as the most

urgent problems (upper half of table 2, total):

1. A different frame of mind: 44 %
2. Language problems: 32%
3. Communication problems: 30%
4. Bad faith: 22%

It is striking that the first three topics are culture- and communication-related problems. Some countries deviate from the general trend. Army officers from the Netherlands mentioned as their top-four problems: different frame of mind (46%) communication problems (46%), language problems (43%), pursuing personal profit (41%). Other countries also have difficulties communicating. Being a native speaker of English is not always the solution, for military from the USA and South Africa report language and communication problems as well. The main problems the Hungarians face are frame of mind (44%) and communication problems (40%). Italy, Russia, Poland, France and Bulgaria report relatively few problems with communication and language. A possible explanation for this deviating position could be that the military from those countries keep to themselves and do not interact much with local parties or local civilian organisations. 'Keeping freedom of movement' pops up as a problem mainly because of high scores for Sweden and Russia. The items that score lowest are also very interesting. 'Partisanship' and 'making rules observed' do no seem to be large problems to most nations participating in PSO. Remarkable exceptions regarding 'making rules observed' are Russia and the USA. 37% of the Russian and 35% of the American officers state this is a problem, while the percentage for all countries is much lower (11%).

In response to the question: 'Did you face any difficulties in your relationship with officers of contingents from other countries?' army officers from all participating countries mentioned (lower half of table 2, total):

1. Language problems: 20%
2. Cultural differences: 14%
3. Diverging interpretations of mission: 13%
4. Divided loyalties (NATO, UN, country, etc.) 13%

Language problems, cultural differences, diverging interpretations of the mission and divided loyalties towards organizations like NATO, UN, the own country, and so on, are common problems army officers have to deal with in the interaction with officers from other countries. But again there are remarkable differences. Army officers from the Netherlands[I] most frequently mentioned language problems (38%), cultural differences (35%), interoperability problems (24%), diverging interpretation of mission (24%), communication problems (24%) and problems with preparation (24%). On the

whole, the Hungarians reported only a few problems with the exception for interoperability problems (24%), language problems (24%) and ethical problems (24%). The Dutch, the French, Poles and the Swedes reported much more trouble than other countries with languages and language related problems, whereas the Russians mainly experienced difficulties with 'diverging interpretation of mission'. On the whole, South

Table 2:   Problems encountered with civilian counterparts and local parties (upper half) and officers from contingents from other countries (lower half) in % (Ntotal=347, N in countries: see table 1)

	Bulgaria	France	Italy	Netherlands	Poland	Russia	S.Africa	Sweden	USA	Hungary	Total
Different frame of mind	42	29	27	46	47	53	57	30	31	44	44
Language problems	16	24	18	43	29	21	38	35	38	32	32
Communication problems	21	10	8	46	6	11	42	35	38	40	30
Bad faith	5	48	12	14	24	42	25	26	12	16	22
Keeping freedom of movement	11	43	2	32	12	21	15	61	27	32	22
Pursuing personal profit	5	19	6	41	12	32	18	13	15	20	18
Partisanship	11	33	10	3	24	37	8	4	8	8	12
Making rules observed			18	3	6	37	7	9	35	8	11
Language	11	10	27	38	35	16	9	48	12	24	20
Cultural differences	21	14	12	35	6	5	8	35		16	14
Diverging interpretation mission	11	33	10	24		42	3	17	12	12	13
Divided loyalties (NATO, UN, etc.)	16	38	12	16		16	4	35	12	12	13
Interoperability problems	21	14	12	24	12	21	3	13	4	24	12
Professional preparation problems	11	5	16	24	6	5	5	39	8	16	12
Ethic code problems		24	4	22			5	30	4	24	10
Communication problems		10	2	24	6	21	7	26	8	12	10
Diverging interpretation of ROE	11	10	4	14	18	16	3	9	4	12	7
Rivalries	5		10	8	12	11	3	9	12	16	7

Africa and USA experienced only a few problems with officers from other countries. Language related problems do not seem to be a major problem to military from these anglophone countries in their interaction with officers from other countries. The fact that countries like France or Bulgaria do not report many problems with language may be interpreted in two ways; either their training in language skills is sufficient, or they did not have much contact with officers from other nations.

Deficiencies in preparation

In response to the question: 'did you experience any deficiencies in your education with regard to the particular features of the PSO that you took part in?' army officers from all participating countries mentioned as the four most serious deficiencies:

1. Languages: 34%
2. International law: 25 %
3. Intercultural management: 22%
4. International relations: 20 %

As can be seen from Table 3, languages, international law, intercultural management and international relations are topics in which a lot of officers from all participating countries experienced deficiencies in their education. But of course the order of the deficiencies differs for all countries. Dutch army officers experienced deficiencies in intercultural management techniques (32%), sociology (24%), languages (24%) and psychology (22%) but not so much in international law or politics. In Hungary the order is again slightly different: law (32%), history (32%), languages (28%), and intercultural management techniques (24%). In the United States officers indicated that what they lacked most was intercultural management techniques (42%). Even though English is the most accepted language in the world, 31% of the American military indicated that they experienced a language deficiency in their education. Probably the respondents wanted to acquire more knowledge of languages of local populations. Regarding language, France and Bulgaria score well below average. Poland and Italy score highest in indicating language as a serious deficiency.

In response to the question: 'In which topic did you experience deficiencies in your training with regard to the particular feature PSO that you took part in?' army officers from all participating countries mentioned:

1. Logistics 18%
2. Tactics 15%
3. Administration 15%
4. Communication 14%

Army officers from the Netherlands mentioned as the most serious deficiencies tactics (24%), leadership (24%) and regulations (22%). In Hungary they were related to administration (36%). Bulgaria experienced a serious deficiency in the field of logistics (47%) Although Russia also reports deficiencies regarding this topic, even more deficiencies are experienced in the field of tactics.

Table 3: Experienced deficiencies in education (upper half) and training (lower half) in % (Ntotal=347, N in countries: see table 1)

	Bulgaria	France	Italy	Netherlands	Poland	Russia	S.Africa	Sweden	USA	Hungary	Total
Languages	21	19	55	24	59	32	32	26	31	28	34
International law	37	24	33	14	47	42	16	22	23	32	25
Intercultural management	11	14	12	32	6	21	27		42	24	22
International relations	21	33	27	14	24	32	15	22	15	16	20
History	11	14	10	8	24	11	16	35	19	32	17
Religions	21	14	16	11	24	32	11	22	27	20	17
Sociology		5	8	24	12	21	15	17	12	16	14
Mass communication	11	19	20	3	35	26	17		4	8	14
Psychology		14	8	22	24	37	12		12	16	13
Economy	5		8	5	18	5	8	4	4	4	7
Logistics	47	14	14	11	24	42	18	9	15	12	18
Tactics		5	2	24	6	58	13	13	31	16	15
Administration	32	14	8	14	29	5	13	4	15	36	15
Communication	16		8	16	12	21	17	9	15	12	14
Regulations	16	10	4	22		5	17	13	4	16	12
Leadership	16	5	2	24		5	5	9	4	16	8
Topography				3		5	7	13	4	4	4

Correlation of 'problems' with 'deficiencies'

To answer the third research question (What is the correlation between the problems and the deficiencies?) the data were first factor-analysed using principal component analysis to find clusters of problems (table 4) and clusters of deficiencies (table 5). After demarcating the clusters, correlation analysis was performed on these clusters.

All variables in the set of questions designating 'problems encountered during deployments' were entered in a principal component factor analysis[2] to find out how these problems could be clustered in factors that more or less indicate the essence of the problems. The analysis revealed five components or factors (table 4; the factors are presented in the columns). High factor loadings are represented in black print to facilitate interpretation. Together these factor loadings in black print represent a cluster. The factors are labelled by a common denominator to the variables. The higher loadings are the most influential in the labelling process.

The first factor comprises interoperability problems, professional preparation prob-

lems, language, communication problems, cultural differences and rivalries. By labelling this factor 'operational and communication problems', the factor is interpreted as such.

Table 4: factor analysis 'problems encountered with civilian counterparts (cc) or with officers from other countries (ooc)

Variables	Factors	Operational and communication problems	Problems with rules	Breaches in trust and ethical problems	Differences in perception	Communication problems with civilian counterparts	Communalities
Interoperability problems (ooc)		,49	,14	,16	,23	,10	,35
Professional preparation problems (ooc)		,57	,11	,22	,00	,02	,39
Language (ooc)		,74	,04	-,05	-,09	,19	,59
Communication problems (ooc)		,46	-,04	,09	,03	,28	,30
Cultural differences (ooc)		,68	-,25	,08	,26	-,09	,61
Rivalries (ooc)		,50	,44	-,06	-,18	,10	,48
Partisanship (cc)		-,18	,72	,24	,12	-,14	,62
Making rules observed (cc)		,01	,65	-,03	,01	,26	,48
Diverging interpretation of ROE (ooc)		,33	,52	-,01	,30	-,18	,50
Bad faith (cc)		,00	,41	,50	,08	,25	,50
Freedom of movement (cc)		,02	,09	,68	-,14	,27	,56
Ethic code problems (ooc)		,43	-,06	,44	,02	-,08	,39
Divided loyalties (nato, un, country)(ooc)		,27	-,02	,64	,21	-,14	,55
Different frame of mind (cc)		,03	,13	-,17	,74	,08	,60
Pursuing personal profit (cc)		-,03	-,05	,21	,59	,31	,49
Diverging interpretations of missions (ooc)		,26	,25	,32	,46	-,06	,45
Communication problems (cc)		,13	,02	,18	,30	,61	,51
Language problems (cc)		,14	,07	-,03	,02	,72	,54
Eigen values		3,5	1,7	1,3	1,2	1,2	
% of variance explained		20	10	7	7	7	

All loadings in this cluster pertain to the items about officers of other countries. The second factor was interpreted as 'problems with rules' as it consisted of the variables: partisanship, making rules observed and diverging interpretations of rules of engagement (ROE). The third factor 'breaches in trust and ethical problems' is characterised by high

factor loadings on bad faith/disloyalty, to keep freedom of movement, ethic code problems and divided loyalties. The fourth factor 'differences in perception' consists of such variables as 'different frame of mind', 'pursuing personal profit' and 'diverging interpretations of missions'. The final factor 'communication problems' comprises communications problems and language problems (with civilian counterparts only)

The factor analysis of the deficiencies experienced in training and education resulted in seven clusters of variables (table 5). The clusters were labelled after the most dominant academic discipline underlying the constituting variables. The variables clustered in the factor 'law and communication' are international law, languages and mass communication techniques. High factor loadings on the second factor are for the variables psychology, sociology and intercultural management techniques. Hence the label 'behavioural sciences' to characterise this factor. The third component comprises inter-

Table 5: factor analysis 'deficiencies in education'

Variables	Factors	Law and communication	Behavioural sciences	International political science	Military operational science	Management and control	History and geography	Economics	Communalities
International law		,67	-,06	,37	,02	,17	-,05	,08	,62
Languages		,48	-,12	,16	,16	,13	,47	,12	,55
Mass communication		,71	,08	-,01	,03	-,03	,05	,04	,54
Psychology		-,04	,72	,07	,19	,05	-,07	-,01	,57
Sociology		-,02	,76	-,10	,01	,17	,19	,14	,68
Intercultural management		,44	,52	,14	,06	-,08	-,06	-,02	,53
International relations		,24	-,04	,73	-,05	-,04	,07	-,02	,60
Religions		-,01	,10	,73	,13	,15	,10	,13	,62
Tactics		-,11	,12	,13	,70	-,22	-,00	-,25	,66
Logistics		,17	-,06	-,18	,68	,30	,02	,10	,63
Communications		,15	,02	,11	,63	,07	,03	,14	,50
Leadership		-,10	,09	,09	,01	,63	-,01	-,23	,48
Administration		,20	,04	,05	,07	,72	-,02	,25	,63
Regulations		,10	,18	,09	,05	,45	,14	-,50	,52
History		-,22	,12	,30	,04	,14	,64	,13	,61
Topography		,13	,02	-,05	-,03	-,12	,82	-,12	,72
Economics		,11	,10	,16	,04	,03	,05	,74	.60
Eigen values		2,7	1,6	1,4	1,2	1,1	1,0	1.0	
% of variance explained		16	9	8	7	7	6	6	

national relations and religions and was labelled 'international political science'. Knowledge of religions belongs to this factor as religion is one of the causes of intra- and interstate conflict and as such it can, with some imagination, be considered political science. The fourth factor is aptly labelled 'military operational science' and is characterised by tactics, logistics and communications. The factor 'management and control' consists of the many managerial tasks of a leader indicated by high loadings for leadership, administration and regulations. The sixth factor comprises history and topography and is labelled according to the highest factor loadings. The seventh factor 'economics' comprises economics (as is evident from the label)

Table 6: correlations between 'deficiencies' and 'problems' (n = 347)

Problems — Deficiencies in education	Law and communication	Behavioural sciences	International political science	Military operational science	Management and control	History and geography	Economics
Operational and communication problems	,15**	,06	,13*	,04	,18**	,07	,11*
Problems with rules	,34**	,18**	,13*	,17**	-,01	,03	,16*
Breaches in trust and ethical problems	,05	,13*	,09	,07	,15**	,09	,04
Differences in perception	,11*	,28**	,15**	,13*	,05	-,07	,03
Communication problems with civilian counterparts	,08	,23**	-,01	,01	,06	,04	,01

significance: * p   0,05; ** p   0,01

The five clusters indicating types of problems that the officers have encountered during PSO and the seven clusters that form the disciplines which officers feel they lack in their education and training prior to deployment are interrelated. Statistically this interrelation can be calculated by correlating 'problems' with 'deficiencies'. Based on the clusters found in the principal component factor analysis, five Likert-scales were constructed for 'problems' and seven for 'deficiencies'. Subsequently, these scales were correlated[3]. In table 6 the significant correlations are flagged by two asterisks, whereas the P < ,05 significance level is marked with one asterisk. Zero-correlations are in grey printing.

Table 6 must be interpreted very carefully. Non-significant correlations for 'history and geography' do not mean that these disciplines are irrelevant. It may be that these disciplines have already been dealt with sufficiently in education and training. Geographical and historical facts about conflicts are indispensable in preparation for

deployments, so they have probably been incorporated in curricula and courses already. When the problems officers encounter during deployments one by one, are checked briefly, the following pattern emerges. When the officers are confronted with operational and communication problems the experienced deficiencies in education and training lie in the disciplines 'law and communication', 'international political science' and 'economics'. The latter discipline probably indicates a need for administrative know-how and practical information on regulations. (it is probably not macro-economics or accounting that is regarded a deficiency) A wide range of disciplines is needed in order to prepare for 'problems with rules'. They seem to be related to 'law and communication', 'behavioural sciences', 'international political science', 'military operational science' and 'economics'. 'Breaches in trust and ethical problems' is correlated with 'behavioural sciences' and 'management and control'. When officers have to deal with 'differences in perception' they feel that their education and training has been insufficient in the areas of 'law and communication', 'behavioural sciences', 'international political science' an military operational science'. 'Communication problems with civilian counterparts' is interrelated with 'behavioural sciences'.

Conclusion: coping with ambiguity

Since the 1990s participation in PSO has become a permanent element of the tasks of the military. PSO tasks differ from traditional military war tasks since the object of PSO is not to impose the will of one party on the other but to eliminate the causes of instability. The aim is not to render parties powerless but to help them reconstruct society and the way to reach this is to avoid destruction by means of minimal use of force. Instead of violence, PSO aim to moderate violence by using 'soft' power and diplomacy. The military realize the changes of object, aim, ways and means by collaborating with armed forces and civilians from all over the world. As tasks were added to the job, the military profession grew more complex than ever before. The metaphor for the profession shifted accordingly, from the soldier as warrior, to manager of violence, to soldier-diplomat/soldier-communicator. Military officers have to be able to switch from 'Article V'-behaviour to behaviour consonant with peacekeeping operations (which includes an attitude of inhibition towards the use of violence). PSO demand a new kind of 'flexible officer'. (Caforio, 2001, 2003) In this study opinions of 347 officers from 10 countries on education and training have been analyzed. The following questions were answered:

1. What kind of problems do officers meet during deployments?
2. What kind of deficiencies did officers experience in their academic and practical preparation?

3. Are the problems encountered during deployments and the experienced deficiencies in the preparation for PSO correlated?

The most frequently mentioned problems with civilian counterparts and local parties during deployments were 'different frame of mind', 'language problems', 'communication problems' and 'bad faith'. The most frequently mentioned problems with officers from other countries were 'language problems', 'cultural differences', 'diverging interpretation of the mission' and 'divided loyalties regarding NATO, UN, own country, etc'.

The most frequently mentioned deficiencies in the military education were 'languages', 'international law', 'intercultural management' and 'international relations'. With regard to training 'logistics', 'tactics', 'administration' and 'communication' were at the top of the list.

Besides five clusters of problems officers encountered during PSO, factor analysis identified seven clusters of deficiencies in education and training. In order to educate and train officers for PSO, the education and training should be designed in such a way that the kind of problems that soldiers are most likely to meet in a certain mission are taken into account. Here, a distinction must be made between the mission-oriented training soldiers undergo shortly before deployment and the academic education at military academies. Mission-oriented training can be tailor-made to fit the demands of specific operational situations. When the majority of the expected problems stem from operational and communications problems mission-oriented training should emphasize law and communication, international political science and management and control. When the most likely problem soldiers encounter is with rules, behavioural sciences, military operational sciences and economics should be incorporated into the curriculum, whereas less emphasis should be given to management and control. A course designed to meet the problem of breaches in trust and ethical problems should provide lessons in behavioural sciences and management and control. Differences in perception call for a range of disciplines comprising law and communication, behavioural sciences, international political sciences and military operational sciences. Communication problems with civilian counterparts form a problem that can be mended by teaching more behavioural sciences.

Apart from the automatic recommendation to provide for tailor-made mission-oriented curricula that are problem driven, there are some complexities to be considered. Firstly, especially in dealing with PSO it is not always possible to know in advance what problems will be encountered. Secondly, languages do not only seem to be the largest deficiency in training and education, they are also the largest problem encountered. Therefore, priority should be given to improving practical language skills (speaking, negotiating, basic knowledge, role-playing, etc.). Thirdly, problems never occur in isola-

tion, which means that they will most likely occur in pairs, or, worse still, bearing in mind Murphy's law,... everything will go wrong at the worst possible moment. In that case the military will have to prepare for a broad array of eventualities.

So far, recommendations have been given that were intended to improve mission-oriented training. However, the academic education at the Royal Netherlands Military Academy should be designed differently. It should be based on a broad general set of disciplines. During their academic education cadets cannot possibly know what deployments they will ever take part in, so it is better to prepare for a mix of problems. All academic subjects and training topics should be incorporated in the education of officers (and the educational staff should not shy away from English reading material or classes in English).

But most importantly, officers should be educated and trained to become flexible, for the most common problem they will encounter is ambiguity. Vocational training (learning the basics of the military profession) is necessary, but will not equip the officers of the future with the mental skills to cope with ambiguity. The more vocational training, the more the risk of trained incapacity. Officers will not be able to generate new solutions to new situations. They are most likely to find themselves in circumstances that change from deployment to deployment and that are often ambiguous. In these situations it takes abstract thinking capacity to arrive at new solutions. Officers will need to analyze a situation, to predict most likely outcomes, to plan operations, to deal with people of all sorts and so on. Officers will need to be able to change their plans when required by a changed situation. That is why officer education should put conceptualization of problems above practical problem solving topics or routine prescriptions dictated by field manuals or bureaucratic regulations. When equipped with the proper intellectual tools and military skills, future officers should be able to cope with ambiguous and unpredictable situations. Academic reasoning, lateral thinking, creativity and analytic powers are the skills flexible officers of the (near) future need to develop.

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Notes

1 Being Dutch the authors have taken the liberty of discussing the Netherlands first.

2 Here principal component analysis was applied using varimax with Kaiser normalisation as rotation technique. The number of factors was determined by use of the 'Eigen value = 1' extraction criterion and visual evaluation by use of a scree-test.

3 Correlations can amount to + 1 or − 1 meaning a perfect positive or negative correlation. Zero means that there is no interrelation at all. As all statistics are based on probability, testing decides on the question which of the correlations differ significantly from zero and which are not significantly different from zero. A significance level of P < .01 means that we have 99% certainty of a correlation not being zero.