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# The post-deployment reintegration scale:

Associations with organizational commitment, job-related affect, and career intentions

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#### **Defence R&D Canada**

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# Abstract

For military personnel, the process of post-deployment reintegration can lead to intra- and/or inter-personal changes that may influence the quality of their relationships with family, friends, and coworkers, as well as their attitudes concerning their military career. The current study is part of a program of research investigating the nature and impact of post-deployment reintegration attitudes of Canadian Forces (CF) personnel. More specifically, it first seeks to support the previously established psychometric properties of a post-deployment reintegration measure in a separate sample of CF personnel. Second, this research explores the postdeployment reintegration attitudes of these personnel in three key areas: personal, family, and work reintegration, as well as the relationship of people's reintegration attitudes to their commitment to the military, job-related affect, and career intentions. In the study, 519 CF personnel completed the 36-item Post-Deployment Reintegration Scale (PDRS). Results provided further support for the validity of the measure. More specifically, higher levels of positive reintegration attitudes among these CF members, especially in the work domain, were associated with higher levels of attachment and other positive feelings toward work and the military. Conversely, higher levels of members' negative reintegration attitudes were related to greater feelings of obligation (as opposed to desire) to remain in the military (in the family area only), higher levels of negative job-related affect (particularly in the work domain), and greater intentions to leave the military (in the work domain only). These results are discussed in terms of their implications for important personal and organizational level outcomes, as well as the importance of recognizing the permeable boundaries of work-family life in a military context.

# Résumé

La réintégration des militaires après un déploiement peut entraîner des changements personnels et interpersonnels susceptibles d'avoir un retentissement sur la qualité de leurs relations avec leur famille, leurs amis et leurs collègues de travail, de même que sur leurs attitudes à l'égard de leur carrière militaire. L'étude en cours s'inscrit dans le cadre d'un programme de recherche portant sur les attitudes et l'impact des attitudes du personnel des Forces Canadiennes (FC) face à la réintégration postdéploiement. Plus particulièrement, elle tente d'abord de confirmer les propriétés psychométriques déjà établies d'une mesure de la réintégration postdéploiement dans un échantillon distinct de membres des FC. Deuxièmement, cette recherche explore les attitudes de ces militaires face à la réintégration personnelle, familiale et professionnelle après un déploiement, de même que la relation entre les attitudes face à la réintégration et l'attachement à l'armée, les émotions liées à l'emploi et les intentions relatives à la carrière. Dans cette étude, 510 membres des FC ont répondu aux 36 questions de l'Échelle de mesure de la réintégration après un déploiement. Les résultats sont venus démontrer la validité de la mesure. Plus précisément, des niveaux plus élevés d'attitudes positives face à la réintégration chez ces militaires, en particulier sur le plan professionnel, étaient associés à des niveaux plus élevés d'attachement et à d'autres sentiments positifs à l'égard de leur travail et de l'armée. Inversement, des niveaux plus élevés d'attitudes négatives face à la réintégration étaient liés à des sentiments plus intenses d'obligation (plutôt que de désir) de rester dans l'armée (domaine familial seulement), à des niveaux plus élevés de sentiments négatifs face au travail (dans tous les domaines, mais particulièrement dans le domaine professionnel) et à des intentions plus marquées de quitter l'armée (dans le domaine professionnel seulement). Nous analysons ces résultats sous l'angle de leur retentissement sur les résultats importants à l'échelle personnelle et organisationnelle et montrons l'importance de reconnaître les frontières perméables qui existent entre travail et vie de famille dans un contexte militaire.

# The post-deployment reintegration scale: Associations with organizational commitment, job-related affect, and career intentions

A.R. Blais; M. Thompson; D.R. McCreary; DRDC Toronto TR 2006-192; Defence R&D Canada – Toronto; November 2006.

**Background:** Returning from overseas military service typically involves rapid transportation home, allowing little time for the returning military members to decompress from the strains and high tempo of their mission. This time can be an extremely important period for personnel to put the events of their tour in perspective, and allow them to do so with others who experienced similar events. Thus, a quick return home can be extremely dislocating for some military personnel and can, in some cases, exacerbate the various factors that increase homecoming stress. As a result, recently returned members may feel isolated or disconnected from the rest of the world, including co-workers, friends and family.

Although a return home can be associated with some negativity and disruption, other research has indicated that it can also have positive effects. For example, returning military members may experience enhanced levels of self-esteem knowing that they accomplished a difficult task under challenging circumstances. Many members also may have developed a renewed sense of purpose and meaning to their lives as a result of their tour. To date, however, we know little about the positive aspects of deployment for Canadian Forces (CF) personnel.

In order to assist the CF in understanding the full range of post-deployment reintegration experiences, attitudes, and consequences among their personnel, the *Post-Deployment Reintegration Scale* (PDRS) was developed in 2003 (Blais, Thompson, Febbraro, Pickering, & McCreary, 2003), and later refined and shortened to 36 items in 2005 (Blais, Thompson, & McCreary, 2005). Both studies showed that a consistent pattern of themes were associated with post-deployment reintegration experiences: specifically the presence of separate positive and negative aspects of *personal* (i.e., feeling like oneself again), *family* (i.e., feeling like a member of the family again), and *work* (i.e., adjusting back to garrison life) reintegration.

The study by Blais et al. (2005) also allowed for an initial exploration of the relation between PDRS scores and various individual outcome variables such as coping styles and symptomatology. The findings showed that, for example, higher levels of negative personal, family, and work reintegration attitudes were related to higher levels of avoidant coping, and physical and psychological symptoms in these soldiers.

**The Current Research:** The central purpose of the present study was to determine the relationship between post-deployment reintegration attitudes and organizational, as opposed to individual, outcomes such as organizational commitment to the military, job-related affect, and career intentions, all of which have important implications for operational readiness and effectiveness at both the individual and organizational levels. A secondary aim of this study was

to provide continued evidence of the reliability and the validity of the PDRS in a separate sample of returning CF personnel.

It was predicted that (1) levels of positive, especially work-related, reintegration attitudes would be positively correlated with levels of affective commitment to the military and positive jobrelated affect, as well as negatively correlated with intentions to leave the military; and (2) levels of negative, especially work-related, reintegration attitudes would be, if at all, positively correlated with levels of continuance commitment to the military and negative job-related affect, as well as positively correlated with intentions to leave the military.

**Method:** Five hundred nineteen CF military personnel who had recently returned from an overseas peace support operation completed the PDRS, *Military Commitment Scale* (MCS), *Job-Related Affective Well-Being Scale* (JAWS), and a single-item measure of their intentions to leave the CF. All of these measures were presented in a mass-testing session that was part of a larger Human Dimensions of Operations (HDO) survey regularly completed by CF personnel.

**Results:** As predicted, high levels of positive reintegration attitudes among these CF members, especially in the work domain, were associated with higher levels of attachment and other positive feelings toward work and the military. Conversely, higher levels of members' negative reintegration attitudes were related to greater feelings of obligation (as opposed to desire) to remain in the military (in the family area only), higher levels of negative job-related affect (particularly in the work domain), and greater intentions to leave the military (in the work domain only).

Confirmatory factor analyses continued to support the six-factor conceptual model of postdeployment reintegration (i.e., distinct positive and negative attitudes within the personal, family and work reintegration domains) and the PDRS scores retained their high internal consistency estimates. Moreover, and consistent with our previous studies, the participants reported significantly higher levels of positive reintegration attitudes versus levels of negative attitudes across domains. The work domain yielded the highest levels of negative attitudes, yet these attitudes were only negative to some extent. Findings also revealed some minor differences in PDRS scores as a function of marital status, number of children, number of tours, and occupational type (combat arms vs. combat support). For example, single personnel reported significantly higher levels of negative work reintegration, while married personnel reported higher levels of positive family reintegration. Those with children had higher scores on both the positive and negative family reintegration scales.

**Discussion:** In summary, the results of this study demonstrate that the work reintegration scores show adequate concurrent validity with respect to well-established measures of organizational commitment and job-related affect and appear to be useful tools for studying occupationally relevant issues in a military context. Interestingly, the family, and to a lesser extent, the personal reintegration scores also proved to be informative in this regard, and have relevance concerning occupational issues, as permeable work-family boundaries seem to exist across reintegration domains. Finally, the PDRS continues to perform in a psychometrically sound and valid manner.

# Sommaire

#### Échelle de mesure de la réintégration après un déploiement : associations avec l'attachement à l'organisation, les affects liés à l'emploi et les intentions relatives à la carrière

# A.R. Blais; M. Thompson; D.R. McCreary; DRDC Toronto TR 2006-192; R & D pour la défense Canada – Toronto; Novembre 2006.

**Contexte :** Habituellement après des opérations à l'étranger, les militaires reviennent rapidement à la maison, ce qui leur laisse peu de temps pour décompresser après le stress et le rythme opérationnel élevé de leur mission. Cette période de décompression peut être extrêmement importante pour le personnel, qui peut ainsi remettre en perspective les événements vécus pendant le déploiement et échanger avec d'autres qui ont connu des expériences similaires. Un retour rapide à la maison peut donc être extrêmement déstabilisant pour certains militaires et peut, dans certains cas, exacerber les divers facteurs qui accroissent le stress du retour à la maison. Les membres de retour depuis peu peuvent donc se sentir isolés ou déconnectés du reste du monde, y compris des amis, des collègues et de leur famille.

Bien qu'un retour à la maison puisse être associé à certains effets négatifs et perturbants, d'autres recherches ont indiqué qu'il peut également avoir des effets positifs. Par exemple, les militaires qui rentrent au pays peuvent éprouver un plus grand sentiment d'estime de soi, sachant qu'ils ont accompli une tâche ardue dans des circonstances difficiles. Nombre d'entre eux peuvent également ressentir une motivation nouvelle et trouver un nouveau sens à leur vie à la suite de leur déploiement. Jusqu'à présent, cependant, on sait peu de choses des aspects positifs du déploiement des militaires canadiens.

Afin d'aider les Forces canadiennes (FC) à comprendre tout l'éventail des expériences, des attitudes et des conséquences liées à la réintégration de leur personnel après un déploiement, nous avons élaboré l'*Échelle de mesure de la réintégration après un déploiement* (EMRD) en 2003 (Blais, Thompson, Febbraro, Pickering et McCreary, 2003), et l'avons plus tard perfectionnée et abrégée pour ne garder que 36 questions en 2005 (Blais, Thompson et McCreary, 2005). Ces deux études ont montré qu'un ensemble constant de thèmes étaient associés aux expériences de réintégration postdéploiement, plus précisément à la présence d'aspects positifs et négatifs distincts de la réintégration *personnelle* (se sentir soi-même à nouveau), *familiale* (se sentir membre d'une famille à nouveau), et *professionnelle* (s'adapter à la vie de garnison).

L'étude de Blais et coll. (2005) a permis d'effectuer un examen initial de la relation entre les scores obtenus à l'EMRD et diverses variables liées aux résultats personnels comme les stratégies d'adaptation et les symptômes. Les auteurs ont découvert, par exemple, un lien entre des niveaux plus élevés d'attitudes négatives face à la réintégration personnelle, familiale et professionnelle et des niveaux plus élevés de comportements d'évitement et de symptômes physiques et psychologiques chez ces soldats.

La recherche actuelle : L'objectif central de la présente étude était de déterminer la relation entre les attitudes face à la réintégration postdéploiement et les effets résultants à l'échelle

organisationnelle, plutôt que personnelle, tels que l'attachement à l'organisation, les sentiments liés au travail et les intentions relatives à la carrière, toutes des variables qui ont un retentissement important sur l'état de préparation opérationnelle et l'efficacité tant au niveau de l'individu que de l'organisation. Cette étude visait en second lieu à fournir des preuves constantes de la fiabilité et de la validité de l'EMRD dans un échantillon distinct de militaires canadiens de retour au pays.

Nous avions prédit que (1) des niveaux d'attitudes positives face à la réintégration, en particulier dans le domaine professionnel, seraient associés à des niveaux d'attachement affectif à l'armée et à des sentiments positifs à l'égard du travail, mais ne seraient pas liés aux intentions de quitter l'armée; et (2) que la réintégration, en particulier dans le domaine professionnel, serait liée, si tant est qu'elle le soit, à des niveaux d'attachement persistant à l'égard de l'armée et à des sentiments négatifs vis-à-vis du travail, de même qu'à l'intention de quitter l'armée.

**Méthodologie :** Cinq-cent dix-neuf militaires canadiens récemment de retour d'une opération de paix outre-mer ont rempli l'EMRD, l'échelle d'attachement à l'armée, l'échelle de mesure du bien-être affectif lié au travail et une mesure comportant une seule question sur leurs intentions de quitter les FC. Toutes ces mesures ont été présentées lors d'une séance d'analyse en masse qui s'inscrivait dans le cadre d'une enquête plus vaste sur les dimensions humaines des opérations (DHO) à laquelle participent régulièrement les membres des FC.

**Résultats :** Comme nous l'avions prévu, des niveaux élevés d'attitudes positives face à la réintégration chez ces membres des FC, en particulier dans le domaine professionnel, étaient associés à des niveaux plus élevés d'attachement et à d'autres sentiments positifs à l'égard du travail et de l'armée. Inversement, des niveaux plus élevés d'attitudes négatives face à la réintégration étaient liés à des sentiments plus intenses d'obligation (plutôt que de désir) de demeurer dans l'armée (domaine familial seulement), à des niveaux plus élevés de sentiments négatifs à l'égard du travail (tous les domaines, mais particulièrement les domaines professionnels) et à des intentions plus manifestes de quitter l'armée (domaines professionnels seulement).

Les analyses factorielles de confirmation ont continué d'appuyer le modèle conceptuel à six facteurs de la réintégration postdéploiement (c.-à-d. attitudes positives et négatives distinctes dans les domaines de la réintégration personnelle, familiale et professionnelle), et les scores obtenus à l'EMRD ont conservé leur forte cohérence interne. De plus et conformément à nos études précédentes, les niveaux d'attitudes positives face à la réintégration étaient beaucoup plus élevés que les niveaux d'attitudes négatives à tous les égards. C'est dans le domaine professionnel que les attitudes négatives étaient les plus répandues, mais ces attitudes n'étaient négatives que dans une certaine mesure. L'étude a également révélé certaines différences mineures dans les scores à l'EMRD en fonction de l'état matrimonial, du nombre d'enfants, du nombre de missions et du type d'emploi (armes de combat c. appui au combat). Par exemple, les militaires célibataires ont fait état de niveaux beaucoup plus élevés d'attitudes négatives face à la réintégration professionnelle, alors que les membres mariés ont obtenu des scores plus élevés pour la réintégration familiale positive. Ceux qui avaient des enfants ont obtenu des résultats plus élevés aux échelles pour les attitudes tant positives que négatives face à la réintégration familiale.

**Analyse :** En résumé, les résultats de cette étude montrent que les scores de réintégration professionnelle présentent une validité concourante adéquate pour ce qui est des mesures établies d'attachement à l'organisation et des sentiments liés à l'emploi et semblent être des outils utiles

pour l'étude des questions d'ordre professionnel dans un contexte militaire. Chose intéressante, les scores de réintégration familiale, et dans une moindre mesure, les scores de réintégration personnelle, se sont également avérés instructifs à cet égard et sont pertinents en ce qui concerne les questions professionnelles, car les frontières travail-famille semblent perméables pour tous les aspects de la réintégration. Enfin, du point de vue psychométrique, l'EMRD continue de fonctionner de façon sûre et valide.

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# Introduction

### Background

Returning from overseas military service typically involves rapid transportation home, allowing little time for the returning military members to decompress from the strains and high tempo of their mission. This time can be extremely important for personnel to put the events of their tour in perspective, while allowing them to do so with others who experienced similar events. Thus, a quick return home can be extremely dislocating for some military personnel and exacerbate the various factors that increase homecoming stress. As a result, recently returned members may feel isolated or disconnected from the rest of the world (Bolton, Litz, Glenn, Orsillo, & Roemer, 2002). At home, their children have matured while they were away, and their families may have developed new routines to which the returning military member must adjust (Thompson & Gignac, 2002).

At work, returning military personnel usually come back to increased bureaucracy, red tape, and decreased work challenges, relative to the activity and purpose they felt during their deployment (Johnson, Lubin, Rosenheck, Fontana, Southwick, & Charney, 1997). Returning home also can be associated with significant organizational disruptions (e.g., unit reconfigurations, postings). Moreover, if military members return to a unit where other members did not deploy, they may face a lack of support from their colleagues (Thompson & Gignac, 2002).

Although a return home can be associated with some negativity and disruption, other research has indicated that it can also be linked to positive attitudes. For example, the returning military members may experience enhanced levels of self-esteem, knowing that they just completed a difficult task under challenging circumstances. Many members also may have developed a renewed sense of purpose and meaning to their jobs, as well as to life in general (e.g., Mehlum, 1995).<sup>1</sup> Yet, until the members return home and fully realize the breadth of their deployment attitudes and accomplishments, some of the implications of the deployment may not be fully comprehended.

### The Post-Deployment Reintegration Scale

In order to assist the Canadian Forces (CF) in understanding the post-deployment reintegration attitudes of their personnel and their consequences, the *Post-Deployment Reintegration Scale* (PDRS) was developed in 2003 by Blais, Thompson, Febbraro, Pickering, and McCreary. An initial literature review and the results of a previous focus group study of CF personnel (Thompson & Gignac, 2002) resulted in a conceptual model of reintegration that reflected the positive and negative aspects associated with four main themes. These themes included *personal* (i.e., feeling like oneself again), *family* (i.e., feeling like a member of the family again), *work* (i.e., adjusting back to garrison life), and *cultural* reintegration (i.e., adjusting back to a land of abundance from countries of extreme deprivation).

<sup>&</sup>lt;sup>1</sup> These positive attitudes or benefits are associated with the deployment experience rather than with the post-deployment experience per se. However, because they are reflected upon after returning home, we refer to them as post-deployment reintegration attitudes.

An initial 64-item version of the PDRS largely conformed to this conceptual model and showed good psychometric properties (Blais et al., 2003). A second study refined the conceptual model, reducing it to six factors reflecting the positive and negative aspects of family and work reintegration, with the cultural and personal items combining under a larger personal reintegration theme (Blais, Thompson, & McCreary, 2005). Moreover, the measure was shortened to 36 items in length while retaining its good psychometric properties.

The study by Blais et al. (2005) also allowed for an initial exploration of the validity of the PDRS scores with respect to various individual outcome variables such as coping styles and symptomatology. The findings showed, for example, that higher levels of negative personal, family, and work reintegration attitudes were correlated with higher levels of avoidant coping, and both physical and psychological symptoms, among these soldiers.

### The Present Study

As noted above, our work to date has established the links between post-deployment reintegration attitudes and individual-level outcomes. Post-deployment attitudes, however, also may have the potential to affect organizationally-relevant outcomes such as job-related affect, commitment to the military, and intentions to remain in the military, all of which may ultimately impact operational effectiveness and retention levels. For instance, soldiers experiencing difficulties adjusting back to the routine of in-garrison life also may develop negative attitudes toward their work, which may then lead to an erosion of their commitment to the military and an increased likelihood of leaving the military.

Organizational commitment, in particular, is a complex psychological state, comprised of at least two components: *affective* commitment is an individual's attachment to, or identification with, the organization, while *continuance* commitment refers to an individual's need to stay within the organization due to a lack of alternatives or due to a large previous investment in the military (i.e., "sunk cost" Moon, 2001). Research has established that the affective and continuance components of organizational commitment have distinct antecedents and consequences in terms of important individual and organizational outcomes. For example, affective commitment has been positively related to military job satisfaction and performance, unit cohesion, career prospects, and retention intentions, as well as to adjustment to Army life, perceived combat readiness, and psychological well-being (Gade, Tiggle, & Schumm, 2003). On the other hand, continuance commitment has been negatively related to (or failed to demonstrate strong links to) job performance and psychological well-being (Meyer & Allen, 1997).

While organizational commitment is of great concern to military organizations, there have been relatively few studies with military members (Gade et al., 2003). The few researchers who have attempted to do so have, for the most part, used only ad-hoc measures of the construct rather than relying on validated scales with a strong theoretical rationale such as those developed by Meyer and Allen (1997; Gade, 2003). Gade et al. (2003) contributed to the military literature by developing and validating shorter affective and commitment scales derived from the work of Meyer and Allen (1997), and they demonstrated the utility of these measures for predicting outcomes important to the Army.

Only in recent years have job stress researchers started to recognize the role of positive and negative job-related affect as an indicator of job satisfaction, well-being, and strain at work (Van Katwyk, Fox, Spector, & Kelloway, 2000). For example, Van Katwyk et al. (2000) found significant correlations between job-related affect and various job-relevant variables such as job stressors and strains, with distinct relationships between positive and negative affect and stressors/strains. Positive affect tends to be correlated with better job outcomes, while negative affect tends to be correlated with poorer job outcomes. In a sample of experienced police officers, McCreary and Thompson (2004) reported positive correlations between work-related operational and organizational stressors and negative work-related affect. However, based on a review of the published literature, there has been little research to date that has focused on job-related affect in military contexts.

In summary then, the first purpose of the present study was to extend the investigation of the validity of the PDRS to the domain of organizational, as opposed to individual, outcomes. Specifically, the objective was to examine the validity of the post-deployment reintegration scores with respect to outcomes such as organizational commitment to the military, positive and negative job-related affect, and career intentions, all of which have important implications for operational readiness and effectiveness at both the individual and organizational levels. Secondarily, this study sought to provide continued support for the reliability and validity of the post-deployment reintegration scores. Specifically, its goals were to replicate both the six-factor model of post-deployment reintegration attitudes and the high levels of internal consistency for each of the subscale scores.

#### Hypotheses

The following are hypothesized, based on the literature and prior research findings: (1) levels of positive, especially work-related, reintegration attitudes will be positively correlated with levels of affective commitment to the military and positive job-related affect, as well as negatively correlated with intentions to leave the military; and (2) levels of negative, especially work-related, reintegration attitudes will be, if at all, positively correlated with levels of continuance commitment to the military and negative job-related affect, as well as positively correlated with intentions to leave the military.

It is also expected that the six-factor structure of PDRS will be replicated, and that each of the six scales will have acceptable psychometric properties.

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## **Participants**

Five hundred nineteen CF military personnel who had recently returned from a peace support operation participated in the study. The majority of these participants were male (91%) non-commissioned members (87%) between the ages of 17 and 36 years (68%) with a high school education (54%) who served in the combat arms (52%). Although 60% of them were married, 52% did not have any children. Sixty-one percent of the participants had completed one or two tours in the course of their career. Table 1 shows the demographic composition of the group in more detail.

Characteristic	Category	n	%
Gender	Male	458	91
	Female	45	9
Rank	NCM	434	87
	Officer	67	13
Age	17 to 21	18	4
	22 to 26	117	23
	27 to 31	105	21
	32 to 36	101	20
	37 to 41	94	19
	42 or older	65	13
Level of education	Some high school	39	8
	High school diploma	233	46
	Some university/college	142	28
	University/college diploma	92	18
Occupational category	Combat	250	52
	Support	229	48
Marital status	Single	203	40
	Married	302	60
Number of children	None	261	52
	One or more	237	48
Number of tours	One	174	35
	Two	132	26
	Three or more	196	39

*Table 1 Demographic characteristics of the participants* (N = 519)

#### Procedure

Participants completed the PDRS within the context of the Human Dimensions of Operations (HDO) survey (Dobreva-Martinova, 1999; Murphy & Farley, 2000). Developed for the Canadian Forces Chief of the Land Staff by the Directorate of Human Resource Research and Evaluation (DHRRE), the HDO is an anonymous survey, designed to provide CF commanders with systematic unit-level information concerning the human dimensions affecting their troops (e.g., unit cohesion and morale).

A Base Personnel Selection Officer attended each survey session to provide an introduction to the HDO and answer questions. The questionnaires included a written introduction and survey instructions and were administered in rooms in training buildings on military bases. Although the survey was administered in groups, soldiers completed the questionnaires privately and individually.<sup>2</sup> The HDO was available in either French or English.

### Materials

#### The Post-Deployment Reintegration Scale (PDRS)

The PDRS (36-item version; Blais et al., 2005) assesses military personnel's positive and negative attitudes towards the personal, family, and work-related aspects of returning home after a deployment. Responses are indicated on a 5-point rating scale representing how true each statement is for the soldier from 1 (*Not at All True*) to 5 (*Completely True*). Sample items include "I am more aware of problems in the world." (see Annex A). Higher subscale scores are indicative of more positive or negative attitudes, depending on the direction of the subscale.

To investigate the relation of post-deployment reintegration attitudes to important aspects of work-related attitudes, the following two measures were selected (see Annex B).

#### The Military Commitment Scale (MCS)

The 8-item *Military Commitment Scale* (MCS; Gade et al., 2003) evaluates the participants' agreement with eight statements related to affective (4 items) and continuance (4 items) commitment using a 5-point rating scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). Sample items include "The Army has a great deal of personal meaning to me." (Affective), and "It would be too costly for me to leave the Army in the near future." (Continuance). Higher scores on the affective commitment scale are indicative of higher levels of attachment to the military. Conversely, higher scores on the continuance commitment scale suggest higher levels of obligation to remain in the military, due to either a lack of alternatives or one's previous career investment.

 $<sup>^2</sup>$  All study materials and procedures, including the use of an unsigned consent for use in anonymous surveys, were reviewed and approved by the Defence R & D Canada Human Research Ethics Committee and the survey coordination processes at DHRRE.

#### The Job-Related Affective Well-Being Scale (JAWS)

The *Job-Related Affective Well-Being Scale* (JAWS; Van Katwyk et al., 2000) inquires about the frequency with which participants experience 30 emotions at work, using a 5-point rating scale ranging from 1 (*Never*) to 5 (*Quite Often*).<sup>3</sup> Sample items include "My job makes me feel... content." (Positive; 15 items) and "My job makes me feel... miserable." (Negative; 15 items). Higher scores on each scale suggest greater levels of job-related positive or negative affect.

#### **Career Intentions**

A single item estimated the participants' intentions to leave the military within the next year ("How likely are you to leave the CF within the next year?"), using a 6-point rating scale ranging from 1 (*Highly Unlikely*) to 6 (*Highly Likely*). Higher scores are indicative of greater intentions to leave the military.

<sup>&</sup>lt;sup>3</sup> This questionnaire is not typically part of the HDO survey, so it was added for this session only.

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## Results

#### Overview

These results are divided into two main sections. Although further corroboration of the psychometric properties of the PDRS is a secondary purpose of the present research, these results are necessary to establish a basis for the review of PDRS results as they relate to organizational outcomes. Thus, confirmatory factor, reliability and descriptive analyses of each of the scales are presented prior to exploring the relationship between post-deployment reintegration attitudes and organizational commitment, job-related affect and intentions to remain in the military.<sup>4</sup>

# Confirmatory Factor Analyses, Reliability and Descriptive Analyses

Confirmatory factor analyses (CFAs) were conducted in which individual items are assigned to specific factors for each of the scales used in the current study. The CFA algorithm then determines the extent to which the data fit the model proposed by the researchers. For example, the hypothesized structure underlying the PDRS represented six correlated factors onto which three parcels of items had loadings; additional free parameters or constraints (e.g., cross-loadings, correlated measurement errors) were not allowed. In this case, three item parcels (i.e., random composites of individual items) per factor were used in order to reduce the ratio of participants to free model parameters (Wegener & Fabrigar, 2000). Similar procedures were used for the MCS and JAWS.

The CFAs was performed using EQS (version 6.1; Bentler, 1990), and followed the procedures outlined by Kline (1998). In each case, the CFA model was created using a covariance matrix as input, along with a maximum likelihood estimation procedure. The Mardia's Normalized Estimate statistic is reported, as there was some modest multivariate kurtosis within the data. Because multivariate kurtosis can have an adverse influence on model fit indices (Kline, 1998), robust fit indices were employed. In order to assess the adequacy of the model's fit to the data, four indices are reported using the guidelines for good fit provided by Hu and Bentler (1999): (1) the Robust Comparative Fit Index (CFI; Bentler, 1990; values should be close to .95 or higher); (2) the Robust RMSEA and its associated 90% confidence intervals (Steiger, 1990; values should be close to .06 or lower), (3) the residuals, which are the standardized differences between the observed and predicted covariances (SRMR; values should be close to .08 or lower); and (4) the chi-square statistic (values should not be statistically significant). Emphasis is placed on the first three fit indices because chi-square statistics are inflated in larger samples and rarely reach non-significance (Hu & Bentler, 1999).

<sup>&</sup>lt;sup>4</sup>The data were screened for univariate outliers and non-normality, and missing data. All univariate outliers were replaced with the next less extreme rating, as recommended by Kline (1998). Indices of univariate non-normality (i.e., univariate skewness and kurtosis) were not extreme, thus score transformations were not required (Kline, 1998). In order to maximize the overall sample size, sample mean values were inserted whenever individual data points were missing (Cohen & Cohen, 1983). A family-wise significance level of .05 is used except when otherwise noted.

After the CFAs demonstrated support for the proposed structure of the PRDS, MCS, and the JAWS, internal consistency reliability estimates (i.e., Cronbach's alphas) were computed for each of the scales. Questions concerning the absolute levels of reintegration attitudes, job-related affect, and military commitment on each dimension or subscale were addressed using descriptive statistics (i.e., means, standard deviations). Table 2 shows the descriptive statistics and internal consistency reliability estimates associated with each of the scales. Finally, correlations between the dimensions within each scale also were computed, and differences between the dimensions were explored using repeated measures analyses of variance (ANOVAs).

#### The Post-Deployment Reintegration Scale

The six-factor model of post-deployment reintegration was replicated in this new sample of CF personnel. The overall model fit was acceptable according to the criteria of Hu and Bentler (1999): Mardia's estimate = 24.60;  $\chi^2(120, N = 519) = 403.07, p < .05$ ; CFI = .94; RMSEA = .067 (.060, .075); and SRMR = .056. The standardized factor loadings, all significant, ranged from .69 to .96, and the factor correlations, from .01 to .79 (in absolute values).

As shown in Table 2, the PDRS subscale scores yielded reliability estimates ranging from .78 to .89, suggesting, in line with past findings, moderate to high internal consistency of the scores.

Also consistent with the results of previous scale development efforts, mean scores on the PDRS subscales, also depicted in Table 2, indicated that the levels of positive attitudes associated with personal, family, and work reintegration were significantly higher than the those of negative attitudes for these CF members (t(518) = 38.79,  $\eta_p^2 = .74$ , t(518) = 19.55,  $\eta_p^2 = .43$ , and t(518) = 9.82,  $\eta_p^2 = .16$ , respectively).<sup>5</sup>

We next asked whether the highest negative reintegration attitudes were reported in the work domain, as found previously (e.g., Blais et al., 2005). We examined this possibility using a repeated-measures analysis of variance (ANOVA). The negative work reintegration subscale scores were indeed significantly higher than the negative family and personal reintegration scores, F(1, 518) = 481.55,  $\eta_p^2 = .48$ . However, the mean negative work reintegration subscale score was just 16.47 out of a possible maximum of 30 (or a score of 2.74 on a 5-point scale). This is only slightly below the rating scale midpoint of 15 (or 3, on a 5-point scale), suggesting that, while it is significantly higher than the other two negative subscale scores, it reflects only *Slightly* to *Somewhat* levels of negative attitudes on average. The positive subscales scores all fell above the scale mid-point. These findings are also entirely consistent with past results.

#### The Military Commitment Scale

The overall two-factor model fit for the MCS was excellent, indicating that affective and continuance commitment do represent two separate dimensions of organizational commitment in this sample: Mardia's estimate = 33.99;  $\chi^2(19, N = 519) = 58.34$ , p < .05;

<sup>&</sup>lt;sup>5</sup> Partial-Eta-squared,  $\eta_p^2$ , represents the proportion of total variability in the dependent variable attributable to an effect. It is routinely used for the interpretation of ANOVA results. For example, a partial Eta squared of .74, as the one reported above, means that the within-subjects factor by itself accounted for 74% of the overall variance in personal reintegration attitudes.

CFI = .98; RMSEA = .063 (.045, .082); and SRMR = .053. The standardized factor loadings all were significant, ranging from .70 to .92, and the two latent variables were essentially uncorrelated, with an estimated value of .05.

Also as shown in Table 2, the continuance and affective commitment subscale scores yielded excellent internal consistency estimates of .85 and .91, respectively. The mean commitment scores both fell above the rating scale mid-point of 3, but, on average, participants in this sample reported significantly higher levels of affective versus continuance commitment, t(518) = 4.64,  $\eta_p^2 = .20$ . Also supporting the two dimensional model of the confirmatory factor analysis, the two commitment scores were essentially unrelated, as determined by  $r^2 \approx .00$  (see Table 5).

#### The Job-Related Affective Well-Being Scale

The overall two-factor model fit of job-related affective well-being assessed by the JAWS also was excellent: Mardia's estimate = 22.42;  $\chi^2(34, N = 519) = 110.97$ , p < .05; CFI = .98; RMSEA = .066 (.053, .080); and SRMR = .036. The standardized factor loadings all were very strong, ranging from .84 to .93, and the two latent variables were significantly correlated, with an estimated value of -.57.

The negative and positive JAWS subscale scores had excellent internal consistency estimates of .93 and .95, respectively. Both mean scores fell slightly below the rating scale mid-point of 3, but, on average, participants in this sample reported significantly higher levels of positive versus negative job-related affect, t(518) = 7.80,  $\eta_p^2 = .34$ . The two job-related affect scores were negatively correlated, sharing 30% of their variance.

#### Career intentions

Career intentions were assessed by a single item; thus, neither factor analyses nor reliability analyses could be conducted. Descriptive analyses, also presented in Table 2, showed that the single-item mean score of 2.16 fell well below the rating scale mid-point of 3.5, with participants in this sample reporting, on average, a relatively low likelihood of leaving the CF within the next year.

Score	Min	Max	М	SD	Alpha
PDRS		max		02	, uprice
Family Negative	6	30	11.32	5.35	.88
Family Positive	6	30	18.41	6.11	.89
Personal Negative	6	30	9.26	3.78	.82
Personal Positive	6	30	19.96	5.59	.85
Work Negative	6	30	16.47	6.43	.85
Work Positive	6	30	20.27	4.85	.78
MCS					
Continuance	4	20	12.01	4.26	.85
Affective	4	20	13.14	3.78	.91
JAWS					
Negative	15	75	38.19	11.31	.93
Positive	15	75	44.80	10.62	.95
Intentions to leave	1	6	2.16	1.54	

Table 2 Descriptive and reliability statistics (N = 519).

#### **Relationship Among Reintegration Domains**

Table 3 shows that the levels of negative reintegration attitudes in the family, personal, and work domains were positively correlated (sharing, in one case, 42% of their variance, as were the levels of positive reintegration attitudes (maximum  $r^2 = .30$ ). The correlations between the positive and negative attitudes within each domain were extremely small (maximum  $r^2 = .04$ ), continuing to support the contention that positive and negative attitudes are distinct for returning personnel.

Score	Family Negative	Family Positive	Personal Negative	Personal Positive	Work Negative	Work Positive
Family Negative	1.00					
Family Positive	03	1.00				
Personal Negative	.65*	.01	1.00			
Personal Positive	.05	.52 <sup>*</sup>	.14	1.00		
Work Negative	.41 <sup>*</sup>	09	.38 <sup>*</sup>	07	1.00	
Work Positive	17 <sup>*</sup>	.44 <sup>*</sup>	06	.55 <sup>*</sup>	21 <sup>*</sup>	1.00

*Table 3 Correlations among the PDRS scores* (N = 519).

 $p^* < .05$  (adjusted for multiple comparisons by the Bonferroni correction).

# Differences in Post-deployment Reintegration Attitudes as a Function of Demographic Group Membership

We also explored the extent to which CF members varied in their responses to the six PDRS dimensions as a function of the four demographic characteristics we thought were most likely to affect their post-deployment reintegration experiences: marital status (single vs. not), number of children (none vs. one or more), number of tours (one, two, three or more), and occupational category (combat arms vs. combat support). For each characteristic, we conducted six ANOVAs. In order to control for the increased likelihood of making a Type I error (i.e., finding significant differences when none really exist) within each set of analyses, we used a Bonferroni correction process to adjust the minimum *p*-value (i.e., p < .05/6 tests = .008). Thus, *F*-values for these ANOVAs will have to have a *p*-value of .008 or smaller in order to be considered statistically significant.

Characteristic	n	%	Family Negative <sup>a</sup>	Family Positive	Personal Negative	Personal Positive	Work Negative	Work Positive
Marital status								
Single	203	40	10.82 <sub>a</sub> (5.42)	16.04 <sub>a</sub> (6.16)	9.49 <sub>a</sub> (3.92)	19.54 <sub>a</sub> (5.83)	17.53 <sub>a</sub> (6.77)	20.53 <sub>a</sub> (4.92)
Married	302	60	11.68 <sub>a</sub> (5.36)	20.15 <sub>b</sub> (5.48)	9.15 <sub>a</sub> (3.71)	20.40 <sub>a</sub> (5.22)	15.75 <sub>b</sub> (6.20)	20.20 <sub>a</sub> (4.79)
No. of children								
None	261	52	10.65 <sub>a</sub> (5.27)	16.98 <sub>a</sub> (6.17)	9.12 <sub>a</sub> (3.67)	20.01 <sub>a</sub> (5.34)	16.92 <sub>a</sub> (6.41)	20.61 <sub>a</sub> (4.73)
One or more	237	48	12.09 <sub>b</sub> (5.48)	20.11 <sub>b</sub> (5.64)	9.47 <sub>a</sub> (3.59)	20.22 <sub>a</sub> (5.62)	15.84 <sub>a</sub> (6.49)	20.11 <sub>a</sub> (4.87)
No. of tours								
One	174	35	10.51 <sub>a</sub> (4.80)	17.97 <sub>a</sub> (5.87)	8.97 <sub>a</sub> (3.58)	20.74 <sub>a</sub> (5.48)	17.14 <sub>a</sub> (6.73)	21.09 <sub>a</sub> (4.68)
Two	132	26	12.36 <sub>a</sub> (6.07)	17.70 <sub>a</sub> (6.58)	10.18 <sub>b</sub> (4.26)	19.45 <sub>a</sub> (5.63)	16.96 <sub>a</sub> (6.26)	20.52 <sub>b</sub> (4.98)
Three or more	196	39	11.36 <sub>a</sub> (5.31)	19.27 <sub>a</sub> (5.96)	8.91 <sub>a</sub> (3.60)	19.68 <sub>a</sub> (5.48)	15.43 <sub>a</sub> (6.15)	19.44 <sub>c</sub> (4.70)
Occupation								
Combat	250	52	11.77 <sub>a</sub> (5.48)	18.06 <sub>a</sub> (6.20)	9.34 <sub>a</sub> (3.93)	19.58 <sub>a</sub> (5.83)	18.24 <sub>a</sub> (6.05)	20.02 <sub>a</sub> (4.90)
Support	229	48	11.01 <sub>a</sub> (5.21)	19.07 <sub>a</sub> (5.82)	9.26 <sub>a</sub> (3.65)	20.53 <sub>a</sub> (5.21)	14.77 <sub>b</sub> (6.33)	20.63 <sub>a</sub> (4.80)

*Table 4 PDRS scores and demographic characteristic* (N = 519)

Note: Means in the same column that do not share subscripts differ at p < .05 in the Tukey Honestly Significant Difference comparison. Additionally, means with subscript *a* differ from means with subscript *c*. <sup>a</sup>M (SD).

With regard to marital status, there were two statistically significant effects. First, those who were single (i.e., never married, divorced, separated, widowed) reported significantly higher negative work reintegration scores compared to those who were married (including those who are considered to be married under common-law), F(1, 503) = 9.28,  $\eta_p^2 = .02$ . Second, married personnel reported significantly higher levels of positive family reintegration, F(1, 503) = 61.53,  $\eta_p^2 = .11$ , compared to single personnel.

When we examined differences in PDSR scores as a function of whether or not the CF members had children, there were two significant effects (i.e., both on the family reintegration scales). Those with children had significantly higher scores on the negative family reintegration scale compared to those without children, F(1, 496) = 8.91,  $\eta_p^2 = .02$ . Interestingly, those with children also reported significantly higher scores on the positive family dimension of the PDRS, F(1, 496) = 34.72,  $\eta_p^2 = .07$ .

The analysis of the differences in PDRS scores as a function of number of tours (one, two, three or more) also revealed two significant effects. First, there was a significant group difference with regard to the positive work reintegration scores, F(2, 499) = 5.73,  $\eta_p^2 = .02$ . Tukeys post-hoc tests showed that those who had been on only one tour had significantly higher levels of positive work reintegration compared to those who had been on three or more tours. Second, there was a significant group difference on the negative personal reintegration scale, F(2, 499) = 5.28,  $\eta_p^2 = .02$ . Post hoc tests showed that those who completed two tours had significantly higher

negative work reintegration scores than those who had completed either one or three or more tours.

The last set of demographic analyses explored PDRS differences as a function of occupational category. Only one significant effect emerged: those in the combat arms reported significantly higher levels of negative work reintegration, F(1, 477) = 37.47,  $\eta^2_p = .07$ .

#### The Relationship of Postdeployment Reintegration Attitudes to Organizationally-Relevant Outcomes

The next section answers the key question posed by the current research: "Do postdeployment reintegration attitudes relate to organizationally-relevant outcomes?" The specific outcome variables were organizational commitment (affective and continuance), job-related affect (positive and negative), and intentions to leave the military. The results addressing these relationships, examined via correlational analyses, are presented in Table 5.

Recall, the following relationships were hypothesized:

1. Higher levels of positive, especially work-related, reintegration attitudes will be positively correlated with levels of affective commitment to the military and positive job-related affect, as well as negatively with intentions to leave the military;

and

2. Higher levels of negative, especially work-related, reintegration attitudes will be, if at all, positively correlated with higher levels of continuance commitment to the military and negative job-related affect, as well as positively with intentions to leave the military.

Score	Family Negative			lPersonal Positive		Work Positive	MCS-C	MCS-A	JAWS-N	JAWS-P	CI
MCS											
Continuance	.22*	05	.14	.02	.02	00	1.00				
Affective	21 <sup>*</sup>	.27 <sup>*</sup>	12	.28 <sup>*</sup>	40 <sup>*</sup>	.42 <sup>*</sup>	.04	1.00			
JAWS											
Negative	.44 <sup>*</sup>	11	.35 <sup>*</sup>	09	.62 <sup>*</sup>	31 <sup>*</sup>	.13	44*	1.00		
Positive	29 <sup>*</sup>	.28 <sup>*</sup>	19 <sup>*</sup>	.30 <sup>*</sup>	52 <sup>*</sup>	.41 <sup>*</sup>	13	.52*	55 <sup>*</sup>	1.00	
Intentions to leave	.08	02	.14	03	.33*	15	28 <sup>*</sup>	27 <sup>*</sup>	.24 <sup>*</sup>	23 <sup>*</sup>	1.00

Table 5 Correlations among the PDRS and outcome scores (N = 519).

 $p^* < .05$  (adjusted for multiple comparisons by the Bonferroni correction).

KEY: MCS-C: Military Commitment Scale – Continuance Commitment; MCS-A: Military Commitment Scale – Affective Commitment; JAWS-N: Job-related Affective Well-being – Negative; JAWS-P: Job-related Affective Well-being – Positive; CI: Career Intentions (i.e., Intention to remain/leave the military).

#### The Military Commitment Scale

As expected, higher levels of positive reintegration attitudes were significantly related to higher levels of affective commitment, with the strongest correlation being in the work domain,  $r^2 = .18$ . In other words, higher levels of positive reintegration attitudes were related to higher levels of feelings of belonging to the military, and that was especially true for these attitudes that were associated with work.

Interestingly, higher levels of negative family reintegration attitudes were significantly correlated, albeit weakly, with higher levels of continuance commitment,  $r^2 = .05$ , yet levels of negative work reintegration attitudes were not. This finding reinforces past theory and research showing that continuance commitment does not typically have a strong impact on organizationally-relevant outcomes (e.g., Meyer & Allen, 1997).

#### The Job-Related Affective Well-Being Scale

As anticipated, positive reintegration attitudes were significantly and positively correlated with positive job-related affect, with the highest correlation being in the work domain,  $r^2 = .17$ . Similarly, higher levels of negative attitudes were significantly related to higher levels of negative job-related affect, and this relationship was, again, particularly strong in the work domain,  $r^2 = .38$ .

#### **Career intentions**

Finally, negative work reintegration attitudes were significantly (negatively) related to intentions to leave the military,  $r^2 = 11\%$ . There were no other significant findings with respect to career intentions.

# Discussion

This research describes the third phase of the development of a multidimensional measure of post-deployment reintegration attitudes relevant to CF military personnel. The main purpose here was to investigate the relationship between the reintegration attitudes assessed by the PDRS and organizational outcomes, such as organizational commitment, job-related affect and intentions to leave the military, thereby complementing our previous work showing the relationship between reintegration attitudes and individual outcomes, such as coping and symptomatology. The secondary purpose of the current study was to provide further support for the psychometric properties of the PDRS, in particular, its factor structure and psychometric properties.

Overall, this group of CF personnel reported generally positive reintegration attitudes and organizational outcomes. Average scores exceeded the mid-point for each of the positive reintegration and organizational attitudinal scales. It was also the case that positive reintegration experiences in one domain tended to be associated with positive experiences in the other reintegration domains. Importantly, these respondents reported higher positive than negative reintegration attitudes across the personal, family and work domains, a finding that is consistent with our previous work in this area. As well, responses on the positive and negative scales associated with family, personal and work reintegration were uncorrelated, again supporting our contention that it is important to assess the positive and negative attitudes separately. The overall positivity reported by these personnel is also reflected in their relatively high levels of organizational commitment, especially affective commitment, which specifically taps feelings of belonging and pride in the CF. Finally, also encouraging is the fact that these soldiers reported high levels of positive job-related affect, and a relatively high intention of remaining in the military.

Average scores fell below the midpoint on the negative reintegration and organizational scales, save for negative work reintegration and negative job related affect; mean scores for both fell slightly above the midpoint for these measures. Negative work reintegration attitudes were significantly more negative than negative attitudes associated with personal or family reintegration, replicating a pattern seen in our previous research. It should be noted that although negative work reintegration attitudes were the highest reported by these soldiers, the mean score across respondents indicated that they were only *Slightly* to *Somewhat* negative concerning their work reintegration experiences, again attesting to the generally positive gestalt reported by these soldiers.

#### Postdeployment Reintegration Attitudes and Organizational Outcomes

We now turn to the central question underlying the current research: Are postdeployment reintegration attitudes related to organizationally-relevant outcomes that could affect operational effectiveness for the CF? We hypothesized that high levels of positive reintegration attitudes, especially those associated with work experiences would be associated with higher levels of organizational commitment, particularly affective commitment, and with more positive job-related affect and higher intentions to remain in the military. Negative reintegration experiences, especially those associated with the work domain, were expected to be associated with poor

organizational outcomes, notably lower levels of organizational commitment, greater negative work-related affect, and higher intentions to leave the military.

Result showed that, as predicted, high levels of positive reintegration attitudes among these CF members, especially in the work domain, were associated with higher levels of attachment and other positive feelings toward work and the military. Positive attitudes related to family and to personal reintegration experiences were both related to increased affective commitment to the military and to positive attitudes concerning work. Interestingly however, none of the positive reintegration attitudes were related to a greater likelihood of remaining in the military. This may be because decisions to leave the military may be multidimensional in nature and must also reflect the availability of viable options, rather than being based exclusively on dissatisfaction with a current work situation.

Also as predicted, negative work reintegration experiences were consistently related to organizational outcome measures, specifically to more negative work related feelings and to a greater intention to leave the military. Indeed, negative work reintegration was the only measure that was significantly associated with career intentions. Following on from the point made earlier, while it may be the case that career intentions might be based on multiple factors (hence the lack of correlation to positive work reintegration), it is also the case that negative work experiences will be a major impetus to leave the military. Interestingly, negative family reintegration was also related to many of the organizational outcomes including greater continuance commitment, and more negative feelings about work. Finally, the negative personal reintegration measure was generally unrelated to the organizational outcomes, save for more negative feeling concerning work.

A particularly noteworthy finding is the apparent strong links among negative post-deployment work attitudes, affective commitment, negative and positive job-related affect, and intentions to leave the military within the next year. This pattern of findings between the PDRS and well-established measures of organizational commitment and job-related affect suggests that the PDRS, especially in the work domain, may well be a useful tool for studying occupational issues in a military context, with high scores on the negative work reintegration experiences in particular signaling potential problems.

It is also of note that the family reintegration domain, in particular negative family reintegration experiences, also appeared to be associated with several of the organizational outcomes assessed in this study. This association may well reflect the permeable boundaries that often exist across the work-family domains (McCreary, Thompson, & Pastò, 2003; Parasuraman, & Greenhaus, 2002). More specifically, these results may reflect the toll that deploying and time spent away from home for training may take on military families. However, the current research did not address this question specifically, and it is left to future research to explore it in a more systematic fashion.

#### PDRS Psychometrics

A secondary purpose of this research was to continue to verify the psychometric quality and the validity of the PDRS. Confirmatory factor analyses corroborated the previous conceptualization and supported the six-factor model of reintegration attitudes (Blais et al., 2003; Blais et al., 2005). Moreover, the reliability of the scales continued to be sustained in this separate sample of

military respondents. As noted earlier, the present findings also provided further evidence for the contention that positive and negative attitudes are distinct within each of the three reintegration domains.

#### Caveats

As encouraging as these findings are, both in terms of the relationship between reintegration experiences and organizational outcomes, as well as the psychometric properties of the scale itself, these correlational analyses do not speak to the direction of causations. For instance, although difficulty in returning home (i.e., negative reintegration attitudes) might affect one's feeling of belonging to the military, it is also the case that a general feeling of not belonging might well affect the quality of reintegration attitudes as well. Thus, future studies, including those using longitudinal designs, will be needed to address these issues of causality more directly. Longitudinal research will assist in answering other important questions as well. For instance, while the current design may provide an accurate snapshot of reintegration attitudes two to four months after these military personnel have returned home, little is known about the process of reintegration. Do high levels of negative attitudes soon after returning home predict longer-term negative outcomes? Or are they just part of a normal process of accommodation back into home and work life? Additionally, even after returning home, soldiers often are sent away from home for extended periods of time for work-related duty (e.g., training). How does the post-deployment reintegration process interact with this other duty-related travel and can it adversely affect the individual and organizational outcomes we have used here and in our other studies (e.g., Blais et al., 2005). Understanding these types of issues will allow for a better understanding of "normal" homecoming attitudes in comparison to those that are harbingers of future problems.

A further issue is that the current research was based exclusively on self-report measures. Although informative concerning the attitudes held by these respondents, the current research does not address behaviors that relate to operational effectiveness. Future research will also benefit from expanding the range of outcome variables to include objective indices of organizational commitment and the health and well-being of members, such as retention rates, sick bay visits, and absenteeism.

#### Conclusions

In conclusion, the PDRS was associated in predicted ways with organizationally-relevant outcomes. This supports our previous efforts demonstrating the relationship of the PDRS scales with individual-level outcomes such as self-reports of coping and health and well-being. Taken with our previous work on this scale, the 36-item PDRS presented in Annex A should be considered as the final working version of the scale.

From an operational effectiveness point of view, the present findings are quite encouraging, as the military personnel in this study reported higher levels of positive reintegration attitudes in each domain compared to their negative reintegration attitudes. Even more encouraging is the fact that this pattern of higher positive than negative reintegration attitudes has been evident across three separate samples of CF personnel, numbering 1367 respondents. Although the highest negative reintegration attitudes were in the work domain, high levels of positive work reintegration attitudes predominated for these CF members.

- [1] Bentler, P.M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238-246.
- [2] Blais, A.-R., Thompson, M.M., Febbraro, A., Pickering, D., & McCreary, D. (2003). The development of a multidimensional measure of post-deployment reintegration: Initial psychometric analyses and descriptive results. Technical Report, Defence Research and Development Canada (DRDC) Toronto, Canada.
- [3] Blais, A.-R., Thompson, M.M., & McCreary, D. A. (2005, April). *Post-deployment reintegration: Another look at a multidimensional measure*. Poster presented at the Annual Society for Industrial and Organizational Psychology Conference, Los Angeles, CA.
- [4] Bolton, E.E., Litz, B.T., Glenn, M., Orsillo, S., & Roemer, L. (2002). The Impact of Homecoming Reception on the Adaptation of Peacekeepers Following Deployment. *Military Psychology*, 14, 241-251.
- [5] Britt, T.W. (2000). The stigma of psychological problems in a work environment: Evidence from the screening of service members returning from Bosnia. *Journal of Applied Social Psychology*, *30*, 1599-1618.
- [6] Cohen, J. & Cohen, P. (1983). Applied multiple regression /correlation analysis for the *behavioral sciences* (2rd Ed.). Mahwah, NJ: Erlbaum.
- [7] Dobreva-Martinova, T. (1999). The Human Dimensions of Operations (HDO) project: An *Overview*. Technical Report, Directorate for Human Resources Research and Evaluation. National Defence Headquarters, Ottawa, Canada.
- [8] Gade., P.A. (2003). Organizational commitment in the military: An overview. *Military Psychology*, *15*, 163-166.
- [9] Gade, P.A., Tiggle, R.B., & Schumm, W.R. (2003). The measurement and consequences of military organizational commitment in soldiers and spouses. *Military Psychology*, 15, 191-207.
- [10] Hoge, C. W., Castro, C., A., Messer, S. C., McGurk, D., Cotting, D. I., & Koffman, R. L. (2004). Combat duty in Iraq and Afghanistan, mental health problems, and barriers to care. *New England Journal of Medicine*, 351, 13-22.
- [11] Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.
- [12] Johnson, D.R., Lubin, H., Rosenheck, R., Fontana, A., Southwick, S., & Charney, D. (1997). Treatment preferences of Vietnam veterans with posttraumatic stress disorder. Journal of Traumatic Stress, 10, 391-405.

- [13] Kline, R.B. (1998). Principles and practice of structural equation modeling. New York: The Guilford Press.
- [14] Manning, F. J., & Fullerton, T. D. (1988). Health and well-being in highly cohesive units of the U.S. Army. *Journal of Applied Social Psychology*, *18*, 503-519.
- [15] McCreary, D.R., & Thompson, M.M. (2004, November). The development of the Operational and Organizational Police Stress Questionnaires. Paper presented at the 2004 Workplace Safety and Insurance Board of Ontario Research Advisory Council Conference, "Solutions for Workplace Change," Toronto, ON, Canada.
- [16] McCreary, D. R., Thompson, M. M., & Pastò, L. (2003). The impact of family concerns on the predeployment well-being of Canadian Forces personnel. *Canadian Journal of Police* and Security Services, 1, 33-40.
- [17] Mehlum, L. (1995). Positive and negative consequences of serving in a UN peacekeeping Mission. A follow-up study. Internal Review of Armed Forces Medical Services, 68, 289-295.
- [18] Meyer, J.P., & Allen, N.J. (1997). Commitment in the workplace: Theory, research, and *application*. Thousand Oaks, CA: Sage.
- [19] Moon, H. (2001). Looking forward and looking back: integrating completion and sunk-cost effects within an escalation-of-commitment progress decision. *Journal of Applied Psychology*, 86, 104-113.
- [20] Murphy, P.J., & Farley, K.M.J. (2000). Morale, cohesion, and confidence in leadership: Unit climate dimensions for Canadian soldiers on operations. In C. McCann & R. Pigeau (Eds.), The human in command: Exploring the modern military experience (pp. 311-332). New York: Kluwer Academic/Plenum Publishers.
- [21] Noy, S. (1991). Combat stress reactions. In R. Gal & D. Mangelsdorff (Eds.), *The handbook of military psychology* (pp. 507-530). New York: Wiley.
- [22] Parasuraman, S., & Greenhaus, J. H. (2002). Toward reducing some critical gaps in workfamily research. *Human Resource Management Review*, *12*, 299-312.
- [23] Steiger, J.H. (1990). Structural model evaluation and modification: An interval estimation approach. Multivariate Behavioral Research, 25, 173-180.
- [24] Tabachnick, B.G., & Fidell, L.S. (1996). *Using multivariate statistics* (3<sup>rd</sup> ed.). New York: Harper Collins.
- [25] Thompson, M.M. & Gignac, M.A.M. (2002). The experience of Canadian Forces augmentees. In P. Essens, A. Vogelaar, E. Tanercan, & D. Winslow, Eds.), *The Human in Command: Peace Support Operations* (pp. 235-263). Amsterdam: Mets & Schilt/KMA.

- [26] Van Katwyk, P.T., Fox, S., Spector, P.E., & Kelloway, E.K. (2000). Using the Job-Related Affective Well-Being Scale (JAWS) to investigate affective responses to work stressors. *Journal of Ocuupational Health Psychology*, 5, 219-230.
- [27] Wegener, D.T. & Fabrigar, L.R. (2000). Analysis and design for nonexperimental data: Addressing causal and noncausal hypotheses. In H. T.Reis & C. M. Judd (Eds.), *Handbook* of research methods in social and personality psychology (pp. 412-450). New York: Cambridge University Press.

#### **POST-DEPLOYMENT REINTEGRATION SCALE**

There are no right or wrong answers to the following questions. People may have differing views, and we are interested in what *your* experiences are. <u>Please indicate the extent to which each of the statements below is true for you since returning from your most recent deployment:</u>

SINCE RETURNING FROM OP ATHENA:	Not at All	Slightly	Somewhat	Very	Completely
1. I am glad I went on the tour.	0	0	0	0	0
2. I feel closer to my family.	0	0	Ο	0	О
3. Putting the events of the tour behind me has been tough.	0	0	0	Ο	Ο
4. There has been tension in my family relationships.	0	0	0	Ο	Ο
5. I find military bureaucracy more frustrating.	0	0	0	Ο	Ο
6. I am more aware of problems in the world.	0	0	0	Ο	Ο
7. I am applying job-related skills I learned during my deployment.	0	0	0	Ο	Ο
8. I have become more responsive to my family's needs.	0	0	0	Ο	О
9. I have had difficulty reconciling the devastation I saw overseas with life in Canada.	0	0	Ο	Ο	О
10. I am better able to deal with stress.	0	0	0	0	0
11. I feel the tour has had a negative impact on my personal life.	0	0	0	0	Ο
12. I feel my current work duties are less meaningful.	0	0	0	Ο	Ο
13. I have become more involved in my family relationships.	0	0	0	Ο	Ο
14. I have a better understanding of other cultures.	0	0	0	Ο	Ο
15. I feel my family has had difficulty understanding me.	0	0	0	0	Ο
16. I have been confused about my experiences during the tour.	0	0	0	0	О
17. Day to Day work tasks seem tedious.	0	0	0	0	Ο

0	Ο	0	0	0
0	О	0	0	0
0	0	0	0	0
0	0	0	0	0
Ο	0	0	0	0
0	0	0	0	0
0	0	0	Ο	0
0	Ο	0	Ο	0
0	Ο	0	Ο	0
0	О	0	0	0
0	Ο	0	0	0
Ο	0	0	0	Ο
0	Ο	0	0	0
Ο	Ο	0	0	0
Ο	О	0	О	0
Ο	0	0	0	0
Ο	0	0	0	0
0	0	0	Ο	0
0	0	0	0	0
	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0       0         0       0	0 $0$	0 $0$

#### MILITARY COMMITMENT SCALE

Please indicate your level of agreement with the following statements using the scale provided below.

	1	2	3	4			5	
Stro	rongly Disagree Disagree Neither disagree nor agree		Agree	Strongly Agree			ree	
				1	2	3	4	5
1.	I feel like "Part	t of the Famil	y" in the Army.	Ο	0	Ο	Ο	Ο
2.	2. The Army has a great deal of personal meaning to me.				0	Ο	Ο	0
3.					0	Ο	Ο	Ο
4.	I feel "emotionally attached" to the Army.			0	0	0	0	0
5.	5. It would be too costly for me to leave the Army in the near future.			0	0	0	0	0
6.	I am afraid of w having another	•	appen if I quit the Army without	0	0	0	0	0
7.	Too much of m the Army now.	-	be interrupted if I decided to leav	e O	0	0	0	0
8.	One of the prob available altern		ing the Army would be the lack o	f O	0	0	0	0

#### JOB-RELATED AFFECTIVE WELL-BEING

Using the rating scale below, please indicate how often you have experienced each emotion at work in the past month.

	My job makes me feel	Never	Rarely	Sometimes	Often	Quite Often
1.	at ease	0	0	0	0	0
2.	angry	0	0	0	0	0
3.	annoyed	0	0	0	0	0
4.	anxious	0	0	0	0	0
5.	bored	0	0	0	0	Ο
6.	cheerful	0	0	0	0	0
7.	calm	0	0	0	0	Ο
8.	confused	0	0	0	0	0
9.	content	0	0	0	0	0
10.	depressed	0	0	0	0	0
11.	disgusted	0	Ο	0	0	0
12.	discouraged	0	0	0	0	0
13.	elated	0	0	Ο	0	0
14.	energetic	0	0	0	0	0
15.	excited	0	0	Ο	0	0
16.	ecstatic	0	0	0	0	0
17.	enthusiastic	0	0	О	0	0
18.	frightened	0	0	0	0	0
19.	frustrated	0	0	0	0	0
20.	furious	0	0	0	0	0
21.	gloomy	0	Ο	0	0	0
22.	fatigued	0	0	0	0	0
23.	happy	0	0	0	0	0
24.	intimidated	0	0	0	0	0
25.	inspired	0	0	Ο	0	0
26.	miserable	0	0	0	0	0
27.	pleased	0	0	О	0	О
28.	proud	0	0	Ο	0	0
29.	satisfied	0	0	О	0	О
30.	relaxed	0	0	О	0	0

# List of symbols/abbreviations/acronyms/initialisms

ANOVA	Analysis of Variance
CF	Canadian Forces
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
DHRRE	Directorate of Human Resource Research and Evaluation
HDO	Human Dimensions of Operations
JAWS	Job-Related Affective Well-Being
MCS	Military Commitment Scale
PDRS	Post-Deployment Reintegration Scale
RMSEA	Root Mean Square Error of Approximation
SRMR	Standardized Root Mean Square Residual

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- (U) For military personnel, the process of post-deployment reintegration can lead to intraand/or inter-personal changes that may impact the quality of their relationships with family, friends, and coworkers, as well as their attitudes concerning their military career. The current study is part of a program of research investigating the nature and impact of post-deployment reintegration attitudes of CF personnel. More specifically, it first seeks to confirm the previously established psychometric properties of a post-deployment reintegration measure in a separate sample of CF personnel. Second, this research explores the post-deployment reintegration attitudes of these personnel in three key areas: personal, family, and work reintegration, as well as the relationship of people's reintegration attitudes to their commitment to the military, job-related affect, and career intentions. In the study, 519 CF personnel completed the 36-item Post-Deployment Reintegration Scale. Results provided further support for the validity of the measure. More specifically, higher levels of positive reintegration attitudes among these CF members, especially in the work domain, were associated with higher levels of attachment and other positive feelings toward work and the military. Conversely, higher levels of members' negative reintegration attitudes were related to greater feelings of obligation (as opposed to desire) to remain in the military (in the family area only), higher levels of negative job-related affect (across domains, yet particularly in the work domain), and greater intentions to leave the military (in the work domain only). These results are discussed in terms of their implications for important personal and organizational level outcomes, as well as the importance of recognizing the permeable boundaries of work-family life in a military context.
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- (U) Post-deployment reintegration; Organizational commitment; Job-related affect; Intentions to leave

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