Ethical Leadership and Organizational Commitment in the Canadian Armed Forces:

An analysis of perceived supervisor ethical leadership as a predictor of organizational commitment in a Canadian Armed Forces sample.

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Abstract

Ethical leadership and organizational commitment are two concepts that have been important to organizations in recent years. Research has demonstrated that these two concepts are linked.   The current study set out to determine the antecedents and consequences of supervisor ethical leadership and in particular, organizational commitment as a consequence of supervisor ethical leadership. The current study investigated these relationships using a sample consisting of Canadian Armed Forces Army personnel (N = 468). Perceived supervisor ethical leadership was found to be directly and positively correlated with employee affective and normative commitment, and not correlated with employee continuance commitment. As well, no difference was found in the perceptions of supervisor ethical leadership for female military personnel as compared to male military personnel. The hypotheses that employee education level would be positively related to perceptions of ethical leadership and that employee age and rank would moderate the relationship between perceived supervisor ethical leadership and employee affective commitment were not supported.

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The requirement for improving ethical leadership in organizations became apparent after highly publicized events such as the Enron collapse, WorldCom's fraud scandal, the sub-prime mortgage crisis and the failure of many large banks in the United States, as well as other scandals in government, sports, and religious organizations in recent years (Brown & Treviño, 2006; Kasthuri, 2009). The negative effects that questionable ethics can have on organizations are evident and the requirement to improve ethics within organizations is now obvious (Den Hartog & De Hoogh, 2009). However, this lack of ethics in organizations cannot be fixed solely by legislation; the lack of ethical values in leadership must be addressed (Kasthuri, 2009). Therefore, there are now calls for researchers to study ethical leadership and learn more about its antecedents and outcomes.

Another organizational topic that has increased in importance in recent years and has been widely studied is organizational commitment. High employee organizational commitment has been linked time and time again to reduced employee turnover intentions and other important organizational outcomes (see Meyer, Stanley, Herscovitch, and Topolnytsky's (2002) meta-analysis). In the early 2000s, the impending retirement of the baby boomers increased organizational focus on managing turnover to avoid having a shortage of qualified workers (Maertz, Griffeth, Campbell, & Allen, 2007). As well,

although the financial downturn in 2008 has caused substantial unemployment, there are still skilled worker shortages in many industries (Flavelle, 2013).

Previous research has shown that these two important concepts are linked such that high supervisor ethical leadership relates directly and positively to employee affective organizational commitment (Neubert, Carlson, Kacmar, Roberts, & Chonko, 2009; Ruiz-Palomino, Ruiz-Amaya, & Knorr, 2011). As well, Den Hartog and De Hoogh (2009) showed that two components of ethical leadership, fairness and integrity, and empowering behaviour, both relate positively to some components of organizational commitment. Additionally, although the relationship between ethical leadership and the affective component of organizational commitment has been studied (see for example Neubert et al., 2009; Ruiz-Palomino et al., 2011), there have been very few studies investigating the relationship between ethical leadership and the continuance and normative components of organizational commitment. Finally, investigations into demographic effects on perceptions of ethical leadership have provided mixed results with some studies finding that there are demographic differences in some areas and others finding no demographic differences (Brown & Treviño, 2006).

Although this relationship has been studied in different types of organizations, it appears the relationship between ethical leadership and organizational commitment has not been studied using a military sample. Additionally, although ethics is taught extensively in the Canadian Armed Forces, no published studies could be found on the concept of ethical leadership using a military sample and yet this would seem worthwhile for a number of reasons.

Ethical leadership is emphasized in the Canadian military. It came to the forefront in the Canadian Armed Forces in the 1990s as a result of the Somalia affair, and surfaced again recently during the Semrau trial in which Capt. Robert Semrau was charged and then acquitted of murder for shooting a severely wounded Taliban soldier in Afghanistan (Friscolanti & Geddes, 2010). Over the last twelve years, Canadian Armed Forces international operations have changed from primarily peace keeping missions (Bosnia, East Timor, Kosovo) to combat operations (Afghanistan, Libya). These combat operations are often those where one side has significantly more military strength and capability than the other, known as asymmetric warfare.

The asymmetry means insurgents must use weapons such as small arms, homemade bombs and improvised explosive devices (IEDs) to fight their enemies. In order to have more of an effect on their enemies given their lack of firepower, insurgents in these conflicts also operate on moral grounds (Thomson, Hall, & Adams, 2010). They know that coalition forces follow rules of engagement and adhere to the Geneva Convention rules for combatants and non-combatants and so they hide amongst local populations and do not wear identifying uniforms. Insurgents also have little concern for civilian life and will target civilians, which violates the laws of war (Thomson et al., 2010). Insurgents use the Canadian Armed Force's commitment to the Laws of Armed conflict against them and try to erode the moral foundations of the Canadian Armed Forces (Thomson et al., 2010). In response to these tactics, the Canadian Armed Forces must go out and find and fight the enemy with small sections of soldiers instead of the large platoons and battle groups used in the past. This structure has pushed ethical decision making down to lower and lower rank levels. Therefore, ethical leadership in

combat is more important now than ever before (Thomson et al., 2010). Due to this, it is increasingly important that the Canadian Armed Forces investigate the antecedents and outcomes of ethical leadership so that they can better promote ethical leadership in the ranks.

Organizational commitment has been another area of concern in the Canadian Armed Forces in recent years. Budgetary constraints in the 1990s caused the Canadian Armed Forces to implement a force reduction strategy and hiring freeze. The result of this strategy is that the distribution of Canadian Armed Forces members by years of service is skewed towards the top end of the scale. In 2008, the number of Canadian Armed Forces members with less than ten years in service was 23.7% whereas the number of members with 10-24 years of service was 62.9% (Park, 2008). As Canadian Armed Forces members are eligible for retirement with pension between 20 and 25 years of service, this means that the Canadian Armed Forces could lose a significant portion of its workforce within the next ten years, and that there are not enough experienced people coming up through the ranks behind them to make up for the loss of experience. Due to the nature of the organization, the Canadian Armed Forces does not have the luxury of hiring experienced members from outside of the organization; they must promote from within. Thus, the retention of experienced members approaching the voluntary retirement point, but younger than the mandatory retirement age, and especially those younger members gaining experience and moving up through the ranks, has become a priority in the Canadian Armed Forces. Organizational Commitment has been found consistently to correlate significantly with turnover intentions both within and outside militaries (Gade & Tiggle, 2003). Ethical leadership is one important factor that has the potential to

influence organizational commitment, and thus turnover intentions; making the relationship between the two a topic of interest for the Canadian Armed Forces. The purpose of the current study is to provide research to fill in the above noted gaps in current research.

In order to provide the background for the study I will now review the literature related to ethical leadership and organizational commitment in more detail. Then, I will present my hypotheses, summarize the study method and results, and conclude with a discussion of the findings, including the study's limitations and future directions.

Ethical Leadership

Treviño, Brown and Hartman (2000; 2003) began investigating the concept of ethical leadership by asking a selection of executives and ethics officers from various organizations to describe the characteristics, behaviours and motives of someone they saw as being an ethical leader. From the results of their study, Treviño et al. (2000; 2003) described two dimensions of ethical leaders. The first, the 'moral person', describes ethical leaders as having integrity, and being honest and trustworthy. Moral persons also do the right thing, uphold personal moral standards, are genuinely concerned for others, and are objective and fair decision makers who follow ethical decision rules and are concerned for society. The other dimension, the 'moral manager', attempts to impart ethical values to others by role modelling ethical behaviour, using rewards and discipline to motivate ethical behaviour, and communicating openly about ethics and values.

Later, Brown, Treviño and Harrison (2005) combined these two dimensions into one definition of ethical leadership. They defined ethical leadership as "the demonstration of normatively appropriate conduct through personal actions and

interpersonal relationships, and the promotion of such conduct to followers through two-way communication, reinforcement, and decision-making" (p. 120). As well, building on the above research and other literature, Brown et al. (2005) developed a 10-item scale to measure perceptions of ethical leadership. It is known as the Ethical Leadership Scale (ELS).

Although ethical leadership has not been extensively studied, researchers have investigated some of the antecedents and consequences of ethical leadership. Brown and Treviño (2006) conducted a literature review and summarized research relating to ethical leadership up to that point, and made recommendations for future studies. From their review they proposed that the situational influences of having an ethical role model, and an organizational ethical context that supports ethical conduct are both positively related to ethical leadership. As well, they proposed that moral intensity (magnitude of consequences and social consensus) enhances the relationship between ethical context and ethical leadership.

For individual characteristics relating to ethical leadership, Brown and Treviño (2006) proposed that agreeableness, conscientiousness, and moral reasoning level are positively related to ethical leadership, and neuroticism and Machiavellianism are negatively related to ethical leadership. They also proposed that moral utilization enhances the relationship between moral reasoning and ethical leadership and power inhibition improves the relationship between need for power and ethical leadership. Finally, they proposed that leaders with an internal locus of control will demonstrate stronger ethical leadership compared to leaders with an external locus of control.

For outcomes of ethical leadership, Brown and Treviño (2006) proposed that ethical leadership is positively related to follower ethical decision-making, prosocial behaviour, satisfaction, motivation, and organizational commitment, and negatively related to employee counterproductive behaviour.

Since 2006, other researches have tested Brown and Trevino's propositions and investigated antecedents and outcomes of ethical leadership. For antecedents of ethical leadership, Mayer, Aquino, Greenbaum, and Kuenzi (2012) found a positive relationship between both leader moral identity symbolization (public actions) and leader moral identity internalization (private expression) and ethical leadership.

For consequences of ethical leadership, Neubert et al. (2009) found ethical leadership to influence follower job satisfaction, both directly and indirectly, through positively influencing perceptions of ethical climate. Shin (2012) had similar findings. He found chief executive officer (CEO) self-reported ethical leadership was positively associated with employees' perceptions of the ethical climate of the firm and that ethical climate, in turn, was positively associated with organizational citizenship behaviour (OCB). He also found that the relationship between ethical climate and OCB was moderated by climate strength such that the stronger the climate, the stronger the relationship between ethical climate and OCB. In addition, Ardichvili and Jondle (2009) conducted a literature review to summarize relevant findings relating to ethical business cultures. They found several other studies that provided support for ethical leadership being a key influence in shaping and maintaining ethical business cultures.

Ethical leadership has been found to relate to both leader and employee effectiveness and other positive work outcomes. De Hoogh and Den Hartog (2008)

investigated the relationship between different facets of ethical leadership (morality and fairness, role clarification, and power sharing) and perceived top management effectiveness. Overall, they found that ethical leadership was significantly related to top management team effectiveness. A positive relationship was found between top management team effectiveness and both morality and fairness, and role clarification. The correlation between power sharing and top management effectiveness was not significant. Toor and Ofori (2009) studied ethical leadership in Singapore's construction industry and found that ethical leadership is positively and significantly related to leader effectiveness, employee willingness to put in extra effort and employee satisfaction with the leader. Den Hartog and De Hoogh (2009) investigated the relationship between two forms of ethical leader behaviour (fairness and integrity, and empowering behaviour) and found that they are both positively related to employee trust in management and trust in co-workers. As would be expected, supervisor ethical leadership has also been found to be negatively related to employee unethical behaviours and unit relationship conflict (Mayer et al., 2012).

Although the antecedents and outcomes of ethical leadership have been studied in the context of civilian organizations, no academic research studies appear to have been carried out using a military sample. It is quite possible, due to the unique nature of selection, training, and experiences of military personnel, that the antecedents and outcomes of ethical leadership are different in a military sample. The current study aims to begin to fill the gap in the literature in this regard. I will now provide an overview of the literature associated with organizational commitment.

Organizational Commitment

Meyer and Allen (1991) developed the three component model of organizational

commitment that is most commonly used in current research. The first component,

affective commitment, occurs when an employee *wants* to remain with an organization.

The second component, continuance commitment, occurs when the employees feels a

need to remain with the organization due to the perceived costs of leaving the

organization. Finally, the third component, normative commitment, occurs when an

employee feels an *obligation* to remain with the organization. These components are not

mutually exclusive; an employee can experience different levels of all three components.

Also, each component results from different antecedents and has different outcomes

(Meyer & Allen, 1991).

Meyer et al. (2002) conducted a meta-analysis to assess the relationships among

the three components of organizational commitment, as well as their antecedents,

correlates, and outcomes. In assessing the relationship among the three components, they

found extensive correlation between affective and normative commitment, indicating that

these two components overlap considerably. However, there was very little correlation

between continuance commitment and the other two components.

For antecedents of the organizational commitment components, Meyer et al.

(2002) found that correlations with demographic variables (gender, education, marital

status) were low. Age and tenure were positively but weakly correlated with all three

components of organizational commitment. For individual differences, external locus of

control correlated negatively with affective commitment, while task self-efficacy

correlated positively, but weakly, with affective commitment. Meyer et al. (2002)

categorized organizational support, transformational leadership, role ambiguity, role conflict, interactional justice, distributive justice, and procedural justice as *work experience* variables. These work experience items were all more strongly correlated with affective commitment. As well, if a phenomenon was positively correlated with affective commitment, it was negatively correlated with continuance commitment, and vice versa, in all cases.

Meyer et al. (2002) categorized job involvement, occupational commitment, overall job satisfaction, pay satisfaction, co-worker satisfaction, extrinsic satisfaction, intrinsic satisfaction, promotion satisfaction, supervision satisfaction and work satisfaction as *correlate* variables because there was no consensus on casual ordering. All correlate variables were found to be positively and strongly related to affective commitment, and positively but less strongly related to normative commitment. The correlate variables were not related, or were weakly and negatively related with continuance commitment (Meyer et al., 2002).

For consequence variables such as turnover, withdrawal cognition, absence, job performance, organizational citizenship, stress, and work-family conflict, Meyer et al. (2002) found that turnover was negatively related to all three components of organizational commitment, with affective being the strongest, followed by normative and continuance commitment. Correlations with withdrawal cognitions were also negative, and much stronger than with actual turnover. Absenteeism correlated negatively with affective commitment, but did not correlate with normative or continuance commitment. Job performance was found to correlate positively with affective and normative commitment, and negatively with continuance commitment.

Organizational citizenship behaviour correlated positively with affective commitment and normative commitment but did not correlate with continuance commitment. For personal outcomes of organizational commitment, stress and work-family conflict correlated negatively with affective commitment and positively with continuance commitment. Work-family conflict did not correlate with normative commitment and there was insufficient data to determine the relationship between normative commitment and stress.

Unlike research in ethical leadership, some studies have been conducted to investigate organizational commitment using military samples. Gade, Tiggle and Schumm (2003) investigated the relationship between affective commitment, continuance commitment and job performance in a military setting. They created four groups: low affective and high continuance, high affective and high continuance, low affective and low continuance, and high affective and low continuance. They found that those with high affective and low continuance performed better on job performance tests than those with low affective and high continuance. They also investigated the effect of organizational commitment with intentions to leave the army and found that those in the high affective high continuance group were more likely to say they would stay in the army longer, and the low affective low continuance group were more likely to say they would leave the army. Finally, they found that affective commitment was more strongly related to self-reported morale and self-assessed readiness ratings than continuance commitment.

Karrasch (2003) studied antecedents of organizational commitment as well as leadership performance as an outcome of the three components of organizational commitment. For demographic antecedents, Karrasch found that affective commitment

and normative commitment did not vary significantly by gender, however men were significantly higher in continuance commitment than women. Affective commitment and normative commitment varied significantly by branch of the United States Army, with Combat Arms having the highest levels of affective commitment and normative commitment, followed by Combat Support, and Combat Service Support branches. Continuance commitment did not vary significantly by branch of the United States Army. Affective commitment and continuance commitment both varied significantly by ethnicity, but normative commitment did not. For perceptions of tokenism (i.e. isolation and stereotyping), those who reported strong tokenism were lower in affective commitment and higher in continuance commitment than those reporting mild tokenism. Organizational commitment was found to be a modest predictor of leadership ability. Affective commitment and normative commitment predicted higher leadership evaluations, and higher continuance commitment predicted lower leadership evaluations. As well, affective commitment appeared to be a stronger predictor of leadership behaviour than normative commitment.

Allen (2003) provided support for further studies of organizational commitment using military samples. She noted that, in the past, military research into organizational commitment has lacked a systematic and theory-driven approach. Also, only a few of the many antecedents and consequences of organizational commitment have been studied using military samples. The current study intends to add to the literature in the area by investigating organizational commitment as a consequence of ethical leadership and by investigating some of the effects of demographics on perceptions of ethical leadership in a military sample.

Ethical Leadership and Organizational Commitment

Two authors have studied the relationship between supervisor ethical leadership, or ethical leadership behaviours, and affective organizational commitment. Ruiz-Palomino, Ruiz-Amaya and Knorr (2011) surveyed members of the banking and insurance sector in Spain and found that supervisor ethical leadership was directly and positively related to affective commitment. Neubert, et al. (2009) surveyed 250 full time employed people from a variety of industries using Brown, Treviño, and Harrison's (2005) Ethical Leadership Scale. They found that ethical leadership has a direct influence on employee affective commitment, and that ethical leadership also influences ethical climate, which in turn is positively related to affective commitment.

Den Hartog and De Hoogh (2009) studied two ethical leadership behaviours, fairness and integrity, and empowering behaviour, in relation to all three components of organizational commitment. Leaders who possess fairness and integrity are proposed to be principled, fair, honest, just, and trustworthy, and treat others equally and with respect. A leader demonstrates empowering behaviour by allowing subordinates to take part in decision making and voice opinions. Empowering leaders also listen to their subordinates and show concern for their wellbeing and help to build confidence. Den Hartog and De Hoogh (2009) found a positive relationship between perceived ethical leader behaviour and affective and normative commitment, and a negative relationship between ethical leader behaviour and continuance commitment. They found that empowering behaviour correlates higher with affective commitment than perceived fairness and integrity. They also found that leader fairness and integrity relate more strongly with normative than with affective commitment.

Allen (2003) acknowledged that Karrasch's (2003) study, in which peer-rated leader performance was found to be an outcome of the three components of leader organizational commitment, was one of the first to look at perceptions of leader behavior in relation to the three components of organizational commitment. Allen (2003) suggested more work needs to be done in this area. As well, the above articles all used civilian samples to investigate the relationship between ethical leadership and organizational commitment. The current report intends to add to this research by investigating the ethical aspects of leader behaviour as an antecedent of subordinate organizational commitment in a military sample.

Hypotheses

As discussed, previous studies have demonstrated that perceived supervisor ethical leadership relates directly and positively to employee organizational commitment. We expect this relationship to also hold true in a military environment.

Hypothesis 1: In a Canadian Armed Forces sample, perceived supervisor ethical leadership will be directly and positively correlated with employee affective commitment.

Two frequently studied antecedents of continuance commitment are side bets, or investments, and the availability of alternatives (Meyer & Allen, 1991). When looking at supervisor ethical leadership in the context of side bets and the availability of alternatives, four possible options result. Employees who have an ethical leader may perceive losing the ethical leader as a cost of leaving the organization. If they perceive the civilian industry as being unethical overall, they may feel that they do not have many alternatives for finding another ethical leader outside of the organization and thus will have high continuance commitment. Or, employees could have an ethical leader, but also believe

there are many opportunities to find an ethical leader outside the organization. In this case, the side bet and alternative may balance out, meaning any continuance commitment would be a result of other factors. Alternatively, employees who have unethical leaders would not realize any costs relating to ethical leadership if they were to leave the organization. Also, if they perceive the civilian industry as being more ethical overall, they would feel they have alternatives outside of the organization. The combination of lack of side bets and the availability of alternatives related to ethical leadership would result in low continuance commitment. However, employees who do not have an ethical leader and also do not believe there are ethical leaders outside the organization would not perceive any cost to leaving the organization, nor any gain to leaving the organization. Thus, any continuance commitment would be related to factors other than ethical leadership.

Consequently, as the evaluation of side bets and availability of alternatives are captured in the same survey instrument, we expect that supervisor ethical leadership does not relate to employee continuance commitment.

Hypothesis 2: In a Canadian Armed Forces sample, perceived supervisor ethical leadership will not relate to employee continuance commitment.

Normative commitment is thought to result from personal characteristics, socialization experiences and organizational investments (Meyer et al., 2002). The Canadian Armed Forces spends a considerable amount of time and money to train its employees. During this training, the Canadian Armed Forces aims to foster loyalty from its members and stresses the importance of ethics. We propose that leaders who live up to the ethical values taught by the military, and actively communicate and reinforce the

importance of loyalty and ethics in their subordinates, will increase the normative

commitment of their subordinates.

*Hypothesis 3: In a Canadian Armed Forces sample, perceived supervisor ethical
leadership will relate directly and positively to employee normative commitment.*

Allen and Meyer (1993) studied the relationships between age and career stage,

and organizational commitment. They indicated that affective commitment has been

shown to be positively correlated with age in several studies. They also found that

affective and normative commitment are more strongly related to employee age than with

organizational or position tenure; after controlling for the effects of organizational or

positional tenure, the relationship between age and affective commitment and normative

commitment was only slightly reduced.

Brown and Treviño (2006) hypothesized that the ethical leadership of more senior

leaders may have less influence on the organizational commitment of subordinates due to

the fact that senior managers typically must dedicate more time to external stakeholders

and less time to employees than lower-level managers. Higher ranking military leaders

also must spend more time working with external stakeholders and less time with direct

subordinates.

Thus, due to the more distant relationship between higher ranking leaders and

subordinates, and the fact that age has been shown to influence employee affective

organizational commitment, we hypothesize that age and rank will moderate the

relationship between perceived supervisor ethical leadership and employee affective

commitment.

Hypothesis 4: Employee age and rank will moderate the relationship between perceived supervisor ethical leadership and employee affective commitment such that the greater the age or rank, the weaker the relationship between perceived supervisor ethical leadership and employee affective commitment.

No differences have been found between perceptions of ethical leadership for male employees compared to female employees (see Brown & Treviño, 2006; McCann & Holt, 2009). However, the percentage of female employees in the Canadian Armed Forces is roughly 12% (Forces, 2013), and the percentage is much less than that in the Canadian Army. Due to this, it worth investigating whether there continues to be no difference between the perceptions of ethical leadership of male employees as compared to female employees in a Canadian Army sample.

Hypothesis 5: There will be no difference in the perceptions of supervisor ethical leadership for female military personnel as compared to male military personnel.

McCann and Holt (2009) investigated the relationship between ethical leadership and education. Most respondents in their study held a high school degree or general equivalency degree (GED) and these respondents rated their supervisors as being moderately ethical. Associate degree graduates also rated their supervisors as being moderately ethical. From there, as the level of respondent education increased, McCann and Holt noticed that there was a small increase in the ratings for supervisor ethical leadership, but the results were not substantive. Education distribution in McCann and Holt's (2009) report was 76% high school graduate, 15.3% associate degree graduate, 6.8% bachelor's degree graduate, and 1.6% Master's degree graduate. We propose to test whether this relationship also holds true for this sample.

Hypothesis 6: Employee education level will be positively related to perceptions of ethical leadership such that the higher the education level, the higher the perceptions of supervisor ethical leadership.

Method

Participants, procedure, and measures

This study comprised a random sample of 1,500 Canadian Armed Forces Army personnel and the sample was stratified across language (French / English) and rank level (i.e., officers / non-commissioned members). The questionnaire was mailed to participants. In the survey instructions, respondents were informed that the survey was anonymous, the results were confidential, and completion of the survey, or any part of it, was voluntary. Of the 1,500 distributed surveys, 468 were completed and returned for an overall response rate of 31%.

Of the 468 respondents, 393 were male and 65 were female, with ten cases missing gender data. Three hundred and thirty seven respondents completed the survey in English and 125 completed the survey in French. One hundred and fifteen were officers and 341 respondents were non-commissioned members. Education level ranged from some high school ($N = 21$), high school graduate ($N = 123$), some college or technical school ($N=65$), college or technical school graduate ($N = 67$), some university undergraduate training ($N = 55$), university graduate ($N = 84$), some university graduate training ($N = 20$), master's degree graduate ($N = 25$), and doctoral degree graduate ($N = 2$). Respondents ranged in age from 19 to 58 years ($M = 37.11$, $SD = 8.30$).

Ethical Leadership. Ethical climate as it relates to supervisor behaviour was assessed using nine items that combined two scales of the Canadian Armed Forces Organizational Climate Questionnaire that assess supervisor behaviour (i.e., supervisor

behaviour [6 items] and supervisor expectations [3 items]; see Table 1; (Kelloway,

Barling, Harvey, & Adams-Roy, 1999). Examples of questions on the supervisor

behaviour scale are "My immediate supervisor demonstrates honesty" (personal action)

and "My supervisor treats people fairly" (interpersonal relationship). An example of a

questions from the supervisor's expectations scale is "My immediate supervisor demands

ethical behaviour from others". Respondents were asked to rate the ethicality of their

immediate supervisor using a scale ranging from 1 (*strongly disagree*) to 5 (*strongly*

agree). Cronbach's Alpha for this scale was 0.75.

Organizational Commitment. Organizational commitment was assessed using a 14-

item scale comprised of statements relating to affective commitment (4 items),

continuance commitment (4 items) and normative commitment (6 items). The scale was

based on Meyer and Allen's (1991) scale adapted for the Canadian Armed Forces.

Examples of the statements were "I feel a strong sense of belonging to the Canadian

Armed Forces, "It would be hard for me to leave the CF right now, even if I wanted to"

and "The CF deserves my loyalty". Respondents were asked to rate their level of

agreement with the statements using a scale ranging from 1 (completely disagree) to 5

(completely agree). Cronbach's alpha for the Affective and Normative portions of the

organizational commitment scale were 0.78 and 0.79 respectively. Cronbach's alpha for

the 4-item continuance commitment scale was 0.66. Upon investigation of this low value,

it was determined that the negatively worded question was lowering the internal

consistency. This was consistent with the findings of other researchers. Meyer, Allen

and Smith (1993) revised Meyer and Allen's (1991) scale and removed the two reverse-

keyed items. Also, Gade and Tiggle (2003) studied affective commitment and continuance commitment in the United States Army using a 4-item scale based on Meyer and Allen's (1991) scale, however, they reworded the reverse-coded items so that all items read in a positive direction. In the current study, with the negatively worded item removed, the resulting 3-item continuance commitment scale had a Cronbach's alpha of 0.72 and so this version was used in the analysis.

Results

Data Screening

Prior to conducting the analysis, the dataset was examined to confirm that it met the assumptions necessary for the bivariate and multivariate analyses being performed. First, descriptive statistics were run on all the variables to ensure the data were in the correct range of responses. The range of the scales was from 1 to 5, however a few values of 6 were found in the data. These values were assumed to be an error of data entry and were corrected to 5. As well, items 8 and 9 on the organizational commitment scale were negatively worded and so the data were reverse coded before beginning analysis.

Next, the data set was reviewed for missing data. Three cases were excluded from the analyses due to over 75% missing data. Several other cases had missing data on some of the items; however, missing data analysis conducted using SPSS 22.0 determined that no cases had greater than 5% missing data and data were missing at random; therefore, no further adjustments were made to the data.

To determine univariate outliers, standardized scores were calculated and values were investigated for those whose standardized scores were greater than 3.0 or lower than -3.0. For the ethical leadership scale, two values were below -3.0 and for the affective commitment scale, five values were below -3.0, indicating outliers. These outliers were not removed as the data set was large ($N>200$) and thus these values would not have an undue effect on the results. To determine multivariate outliers Mahalanobis and Cook's distance scores were calculated. No multivariate outliers were found in the dataset.

Next, variables were assessed for normality by examining skew and kurtosis. Overall, the ethical climate scale, and the affective and normative components of the organizational commitment scale were negatively skewed. The continuance commitment scale had near zero skew. All were within acceptable limits. For Kurtosis, the ethical climate and affective component of the organizational commitment scales had more leptokurtic distributions, and the continuance and normative components of the organizational commitment scale had more platykurtic distributions. Scatter plots of all variables confirmed there were no issues with linearity and that all errors were homoscedastic.

To test multicollinearity, predictor variables were examined to determine if any were strongly correlated. Age was found to be strongly correlated with length of service and thus length of service was removed as a predictor variable in Hypothesis 4. All predictor variables were also centered in order to reduce multicollinearity in multiple regression analysis; therefore, singularity was not an issue. To test the independence of

residuals, the Durbin-Watson statistic indicated that for each equation, there were no serial correlations between residuals.

Means, standard deviations, scale reliabilities and intercorrelations for all variables are included in Table 1.

Table 1.

Means, standard deviations, inter-correlations, and scale reliabilities of the study variables.

	Scale	M	SD	1	2	3	4	5	6	7	8
1	Supervisor Ethical Leadership	3.72	.58	(.75)							
2	Affective Commitment	3.70	.77	.16**	(0.78)						
3	Normative Commitment	3.28	0.83	.12*	.55**	(.79)					
4	Continuance Commitment	2.96	1.03	-0.05	.03	.08	(.72)				
5	Rank level			.12*	.19**	.10*	-.25**	-			
6	Education level			.03	.05	.08	-0.24**	.52**	-		
7	Age	37.11	8.30	.06	.18**	.04	-0.13**	.27**	-0.13**	-	
8	Sex			-0.03	-0.1	.02	.02	-0.17**	.03	-0.12*	-

Notes. Cronbach's alpha on diagonal in parentheses. * $p < .05$, ** $p < .01$.

Hypothesis Testing

To test the first three hypotheses a correlation analysis was conducted. Hypothesis 1, that perceived supervisor ethical leadership relates directly and positively to employee affective commitment, was assessed first. The analysis showed that supervisor ethical leadership was positively and significantly correlated with employee affective commitment ($r = 0.16$, $p < .01$), thus supporting Hypothesis 1. Hypothesis 2, that perceived supervisor ethical leadership does not relate to employee continuance commitment, was assessed second. The analysis showed that supervisor ethical leadership does not relate to employee continuance commitment ($r = -0.05$, ns), thus supporting Hypothesis 2. Hypothesis 3, that perceived supervisor ethical leadership relates directly and positively to employee normative commitment was assessed third. The analysis showed that supervisor ethical leadership relates positively and significantly to employee normative commitment ($r = 0.12$, $p < .05$), thus supporting Hypothesis 3. These results are summarized in Table 1.

Results of the moderated regression analysis provided no support for hypothesis 4, that age and rank would moderate the relationship between perceived supervisor ethical leadership and employee affective commitment. Although the correlation between the independent and dependant variables was small, it was appropriate to conduct this analysis as moderation was predicted. In conducting the moderated regression analysis, the predictor and dependent variables were first centered for ease of interpretation and to guard against multicollinearity (Meyers, Gamst, & Guarino, 2006). Next, the interaction

term was created by multiplying centered supervisor ethical leadership by age group. In

the regression equation, the main effects of centered ethical leadership and age group

were entered in step 1. In step 2, the interaction variable was added in addition to the

main effect variables. This same process was repeated in a second moderated regression

analysis for rank level. The results indicated that employee age, $\Delta R^2 = .00$, $\Delta F\ (1,\ 444) =$

$.97$, $p > .05$ and rank level, $\Delta R^2 = .00$, $\Delta F\ (1,\ 451) = .0$, $p > .05$ did not moderate the

relationship between supervisor ethical leadership and employee affective commitment.

These results are summarized in Table 2 and 3.

Table 2.
Results of Moderated Regression Analysis: Age group as a moderator.

	B	SE B	β	ΔR^2
Step 1				.05
Ethical Leadership Centered	.19	.06	.14	
Age Groups	.15	.04	.17	
Step 2				.00
Ethical Leadership Centered	-0.01	.21	-0.01	
Age Groups	.15	.04	.17	
Ethical Leadership Centered x Age Groups	.08	.08	.15	

Table 3.
Results of Moderated Regression Analysis: Rank level as a moderator.

	B	SE B	β	ΔR^2
Step 1				.05
Ethical Leadership Centered	.16	.06	.12	
Rank Level	.14	.04	.18	
Step 2				.00
Ethical Leadership Centered	.13	.14	.10	
Rank Level	.14	.04	.18	
Ethical Leadership Centered x Rank Level	.02	.07	.03	

To test Hypothesis 5, that there are no gender differences in perception of supervisor ethical leadership, an independent t-test for the equality of means was conducted. The t test failed to reveal a statistically reliable difference between females' perceptions of supervisor ethical leadership (M = 3.68, SD = 0.65) and males' perceptions of supervisor ethical leadership (M = 3.74, SD = 0.57), t (456) = 0.71, p < .05. Thus, Hypothesis 5 is supported. These results are summarized in Table 4.

Table 4

Results of t-test for equality of means

	Gender		t	df
	Females	Males		
Ethical Leadership	3.68	3.74	0.71	456
	(.65)	(.57)		

Note. Standard Deviations appear in parentheses below means.

Hypothesis 6, that employee education level is positively related to perceptions of ethical leadership, was tested by conducting a one way ANOVA with supervisor ethical leadership as the dependant variable and education level as the independent variable. A multiple comparison Tukey test was also conducted to analyze between group differences (Black, 2008). The result of the ANOVA was a significant difference in the mean level of perceived supervisor ethical leadership between at least two education levels F(8,453) = 2.42, *p* < .05. However, post hoc comparisons using the Tukey HSD test indicated that the only significant difference was between college or technical school graduates and university graduates ΔM=.35, SE=.09, *p*<.01. Therefore, although the results of the ANOVA showed statistical significance, the result is not substantive and Hypothesis 6 is not supported. These results are summarized in Table 5.

Table 5

Results of one way ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	6.41	8	.80	2.42	.01
Within Groups	149.88	453	.33		
Total	156.30	461			

Discussion

The objective of this study was to examine the relationships between supervisor ethical leadership and the three components of employee organizational commitment in a Canadian Armed Forces sample. An additional objective was to examine the effects of employee demographics on employee perceptions of supervisor ethical leadership, and the effects of employee age and rank as moderators of the relationship between supervisor ethical leadership and employee organizational commitment.

Correlation analysis showed support for Hypotheses 1, 2 and 3, that perceived supervisor ethical leadership relates directly and positively to employee affective and normative commitment, and does not relate to employee continuance commitment. Although correlations were small, the results of Hypotheses 1 and 3 demonstrate that if employees feel they have an ethical leader, they will experience more affective and normative commitment and thus will be more likely to express an intent to stay in the Canadian Armed Forces.

It is interesting to note that the correlation between supervisor ethical leadership and affective commitment is stronger than the correlation between supervisor ethical

leadership and normative commitment. Den Hartog and De Hoogh (2009) also found a similar pattern relative to the two facets of ethical leader behaviour they studied (fairness and integrity, and empowering behaviour). The current study is the first time that the relationship between the entire construct of ethical leadership and all three components of organizational commitment has been investigated. Thus, the finding that ethical leadership more strongly affects affective organizational commitment adds to current literature and, when considered in relation to Den Hartog and De Hoogh's (2009) research, indicates that the interpersonal relationship portion of the ethical leadership definition may have a stronger overall effect on organizational commitment than the personal action portion.

The result of Hypothesis 2 indicates that supervisor ethical leadership does not relate to employee continuance commitment. Therefore, additional focus on ethical leadership training would not be expected to have an effect on employees' continuance commitment to the Canadian Armed Forces and the portion of turnover intentions relating to continuance commitment would not be expected to change.

Moderated regression analysis did not show support for hypothesis 4, that employee age and rank would moderate the relationship between perceived supervisor ethical leadership and employee affective commitment. This result implies that contrary to Brown and Treviño's (2006) hypothesis, senior leaders have as much influence on the organizational commtiment of subordinates as more junior leaders. As well, although age has been shown to be positively correlated with affective commitment (Allen & Meyer, 1993), the result from this study suggests that this relationship does not interfere with the

relationship between ethical leadership and affective organizational commitment. Thus, in order to increase affective commitment, it may be equally important for the Canadian Armed Forces to instruct the leaders of employees of all ranks and ages on ethical leadership practices.

Another possible reason for the lack of moderation effect is the presence of other mediators or moderators that were not evaluated in the current study. Neubert et. al. (2009) found that ethical climate partially mediated the relationship between ethical leadership and affective organizational commitment. Thus, the mediating effect of ethical climate which was not assessed in this study, might have been stronger than the moderating effects of age and rank in the current study sample.

An independent t-test for the equality of means showed support for Hypothesis 5, that there would be no gender differences in perceptions of supervisor ethical leadership. This result is consistent with the results of other studies (Brown & Trevino, 2006; McCann & Holt, 2009). This result indicates that even though the percentage of female employees in the Canadian Armed Forces is much less than that found in other organizations, female employees perceive the same level of ethical leadership in their leaders as do their male counterparts.

A one way ANOVA analysis did not show support for Hypothesis 6, that employee education level would be positively related to perceptions of ethical leadership. This result differs from that of McCann and Holt (2009). In the current study, education level was more evenly distributed across the sample than for McCann and Holt's (2009) study in which 76% of participants were high school graduates. The results of the current

study show that the only significant difference in perceptions of supervisor ethical leadership was between college graduates and university graduates. There was no significant difference between any other combinations of education levels. A possible reason for this result is that the Canadian Armed Forces instructs all of its members on ethical leadership. Therefore, all Canadian Armed Forces members have an equally good understanding of what ethical leadership is and the qualities of an ethical leader. When evaluating their supervisor's ethical leadership, they likely relied on these definitions and not definitions obtained through their non-military education.

Consequently, in order to reduce turnover and promote ethical leadership, our results suggest the Canadian Armed Forces should continue to focus on training leaders to develop ethical leadership. Affective and normative commitment have also been shown to relate to positive work outcomes such as job performance, organizational citizenship behaviour, and reduced stress (Meyer et al., 2002). Hence, investing in ethical leadership training could also help to promote these positive work outcomes.

Study Limitations and Future Directions

One limitation of this study is that it failed to account for the inherent hierarchical nature of the organization. The regression analysis conducted assumes that all variables are completely independent of each other. However, individuals in organizations are organized into three hierarchical levels: individual, collective/organization, and environment, as well as intermediate hierarchical levels such as work groups, departments, etc. (Hofmann, 1997). Members of these groups may be more like one another than individuals in other groups and hence may not provide independent

observations (Hofmann, 1997). Canadian Armed Forces employees are generally organized into small sections where all members of the section report to a single leader. Thus, in the current study, several employees were evaluating the same person for the supervisor ethical leadership scale. It follows that these employees' scores may be more similar to each other than those of a different section evaluating a different leader. The nature of the data collected in this study did not allow us to separate individuals into their separate groups and levels, and thus we were not able to account for the fact that our variables were not completely independent of each other. Future studies in military settings should aim to collect data on the various groups within their study population in order to account for the hierarchical nature of the organization and improve the quality of the analysis by reducing errors.

Another limitation of this study is that Brown, Treviño and Harrison's (2005) Ethical Leadership Scale was not used to assess supervisor ethical leadership. Although using the ethical leadership portion of the Canadian Armed Forces Organizational Climate Questionnaire served the purpose of the current study, the Ethical Leadership Scale is the more commonly accepted measure. Future studies studying ethical leadership using military samples should use the Ethical Leadership Scale in order to enable simplified comparisons with existing and future research.

Finally, the current study only obtained demographic data for the employees. Demographic data for the supervisors was not obtained. Future studies should aim to collect demographic data for both the employees and the supervisors in order to investigate if demographic differences affect the relationship between supervisor ethical leadership and employee organizational commitment.

Conclusion

This study contributed to current research by providing new data on the relationship between supervisor ethical leadership and organizational commitment in a military sample. The central finding that supervisor ethical leadership was positively and significantly related to employee affective and normative organizational commitment, but not related to employee continuance commitment could be helpful to military leaders trying to manage turnover in the Canadian Armed Forces.

These results suggest that the Canadian Armed Forces should continue its effort to increase the ethical leadership of its personnel. Doing so could increase the affective and normative commitment of its members, increasing retention of these valuable employees and potentially promoting other positive workplace behaviours associated with ethical leadership.

References

Adams, B. D., Thomson, M. H., Brown, A., Sartori, J. A., Taylor, T., & Waldherr, S. (2008). *Organizational Trust in the Canadian Forces.* Toronto: Defence Research and Development Canada.

Allen, N. J. (2003). Organizational commitment in the military: A discussion of theory and practice. . *Military Psychology*, 237-253.

Allen, N. J., & Meyer, J. P. (1993). Organizational commitment: Evidence of career stage effects? *Journal of Business Research*, 49-61.

Ardichvili, A., & Jondle, D. (2009). Ethical business cultures: A literature review and implications for HRD. . *Human Resource Development Review*, 223-244.

Black, K. (2008). *Business Statistics.* Hoboken: John Wiley & Sons.

Brown, M. E., & Trevino, L. K. (2006). Ethical Leadership: A review and future directions. *The Leadership Quarterly*, 595-616.

Brown, M. E., & Treviño, L. K. (2006). Ethical leadership: A review and future directions. *The Leadership Quarterly*, 595-616.

Brown, M., Treviño, L. K., & Harrison, D. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behaviour and Human Decision Processes*, 117-134.

De Hoogh, A. H., & Den Hartog, D. N. (2008). Ethical and despotic leadership, relationships with leader's social responsibility, top management team effectiveness and subordinates' optimism: A multi-method study. *The Leadership Quarterly*, 297-311.

Den Hartog, D. N., & De Hoogh, A. H. (2009). Empowering behaviour and leader fairness and

integrity: Studying perceptions of ethical leader behaviour from a levels-of-analysis

perspective. *European Journal of Work and Organizational Psychology*, 199-230.

Flavelle, D. (2013, June 20). *People without Jobs - Jobs without People: Decoding Canada's 'skills

crisis'*. Retrieved from thestar.com BUSINESS:

http://www.thestar.com/business/2013/05/24/decoding_canadas_skills_crisis.html

Forces, C. (2013, June 23). *Women*. Retrieved from FORCES.CA:

http://www.forces.ca/en/page/women-92

Friscolanti, M., & Geddes, J. (2010, July 26). *Capt. Robert Semrau, ethics, and the 'soldier's pact'*.

Retrieved July 16, 2013, from Macleans: http://www2.macleans.ca/2010/07/26/a-stern-

message/

Gade, P. A., & Tiggle, R. B. (2003). The Measurement and Consequences of Military

Organizational Commitment in Soldiers and Spouses. *Military Psychology*, 191-207.

Gade, P. A., Tiggle, R. B., & Schumm, W. R. (2003). The measurement and consequences of

military organizational commitment in soldiers and spouses. *Military Psychology*, 191-

207.

Gower, A., & Kelly, K. (1993). *How big should the sample be?* Ottawa, Ontario: Social Survey

Methods Division, Statistics Canada.

Hofmann, D. A. (1997). An overview of the logic and rationale of hierarchical linear models.

Journal of Management, 723-744.

Karrasch, A. I. (2003). Antecedents and Consequences of Organizational Commitment . *Military Psychology*, 225-236.

Kasthuri, H. (2009). Leading with your soul: The comprehensive ethical leadership model shows you how to create an ethical workplace that will lead to sustainability for your company. *Strategic Finance*, 44-51.

Kelloway, E., Barling, J., Harvey, S., & Adams-Roy, J. E. (1999). Ethical decision-making in DND: The development of a measurement instrument. *Sponsor Research Report 99-14*. Ottawa, Ontario: Directorate Human Resources Research and Evaluation.

Maertz, C. P., Griffeth, R. W., Campbell, N. S., & Allen, D. G. (2007). The effects of perceived organizational support and perceived supervisor support on employee turnover. *Journal of Organizational Behavior*, 1059-1075.

Mayer, D. M., Aquino, K., Greenbaum, R. L., & Kuenzi, M. (2012). Who displays ethical leaderhip, and why does it matter? An examination of antecedents and consequences of ethical leadership. *Academy of Management Journal*, 151-171.

McCann, J., & Holt, R. (2009). Ethical leadership and organizations: An analysis of leadership in the manufacturing industry based on the perceived leadership integrity scale. *Journal of Business Ethics*, 211-220.

Meyer, J. P., & Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*, 61-89.

Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to Organizations and Occupations:

   Extension and Test of a Three-Component Conceptualization. *Journal of Applied

   Psychology*, 538-551.

Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and

   normative commitment to the organization: A meta-analysis of antecedents, correlates,

   and consequences. *Journal of Vocational Behavior*, 20-52.

Meyers, L. S., Gamst, G., & Guarino, A. J. (2006). *Applied multivariate research.* Thousand Oaks,

   CA: Sage Publications.

Neubert, M. J., Carlson, D. S., Kacmar, K. M., Roberts, J. A., & Chonko, L. B. (2009). The virtuous

   influence of ethical leadership behavior: Evidence from the field. *Journal of Business

   Ethics*, 157-170.

Neubert, M. J., Carlson, D. S., Kacmar, M. K., Roberts, J. A., & Chonko, L. B. (2009). The virtuous

   influence of ethical leadership behaviour: Evidence from the field. *Journal of Business

   Ethics*, 157-170.

Park, J. (2008, July). *A profile of the Canadian Forces.* Retrieved from Statistics Canada:

   http://statcan.gc.ca/pub/75-001-x/2008107/pdf/10657-eng.pdf

Ruiz-Palomino, P., Ruiz-Amaya, C., & Knorr, H. (2011). Employee organizational citizenship

   behaviour: The direct and indirect impact of ethical leadership. *Canadian Journal of

   Administrative Sciences*, 244-258.

Schwepker, C. H. (2001). Ethical climate's relationship to job satisfaction, organizational

commitment, and turnover intention in the salesforce. *Journal of Business Research*, 39-

54.

Shin, Y. (2012). CEO Ethical Leadership, Ethical Climate, Climate Strength, and Collective

Organizational Citizenship Behavior. *Journal of Business Ethics*, 299-312.

Thomson, M. H., Hall, C. D., & Adams, B. D. (2010). *Current Canadian Forces Education and

Training for Moral and Ethical Decision Making in Operations.* Guelph: Humansystems

Incorporated.

Toor, S.-u.-R., & Ofori, G. (2009). Ethical leadership: Examining the relationships with full range

leadership model, employee outcomes, and organizational culture. *Journal of Business

Ethics*, 533-547.

Trevino, L. K., Brown, M., & Hartman, L. P. (2003). A qualitative investigation of perceived

executive ethical leadership: Perceptions from inside and outside the executive suite.

Human Relations, 5-37.

Trevino, L. K., Hartman, L. P., & Brown, M. (2000). Moral person and moral manager: How

executives develop a reputation for ethical leadership. *California Management Review*,

128-142.