

Does the Royal Military College of Canada create Transformational Leaders?

Le Collège militaire royal du Canada crée-t-il des leaders transformationnels?

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2024

A THESIS PRESENTED TO THE DEPARTMENT OF MILITARY PSYCHOLOGY AND
LEADERSHIP IN FULFILMENT OF THE REQUIREMENTS OF THE B.A IN
PSYCHOLOGY WITH HONOURS DEGREE

Abstract

According to the Department of National Defence (2005) transformational leadership is the preferred leadership style by the Canadian Armed Forces (CAF) given its capacity to transform the moral awareness of subordinates and encourage social change as needed within the organization. However, research has shown conflicting perspectives on the development of transformational leadership across different levels of the military (Ivey & Kline, 2010; Kane & Tremble, 2000; Stevenson, n.d.). The objective of this study was to investigate the differences in transformational leadership between the academic years of naval and officer cadets (N/OCdts) at the Royal Military College of Canada (RMC). The relationship between ethical climate, personality, and transformational leadership were also examined in this study. N/OCdts ($n = 92$) in their first or third year of academic studies were recruited from mandatory psychology courses at RMC. N/OCdts completed surveys in regard to transformational leadership, personality, and ethical climate which were later evaluated using *T*-tests and regression analyses. The results indicate that there are no statistical differences in the level of transformational leadership between first- and third-year students, suggesting that there are no significant differences in transformational leadership by year. Furthermore, agreeableness was the only personality dimension that significantly predicted transformational leadership. As RMC has recently undergone the Independent External Comprehensive Review by Arbour (2022), the findings of this study may provide further insight on the development of leadership of N/OCdts in the Regular Officer Training Program and provide future directions on how to approach the recommendations established within the Arbour report.

Abstrait

Selon le ministère de la Défense nationale (2005), le leadership transformationnel est le style de leadership privilégié par les Forces armées canadiennes (FAC) en raison de sa capacité à transformer la conscience morale des subordonnés et à encourager les changements sociaux nécessaires au sein de l'organisation. Cependant, la recherche a montré des perspectives contradictoires sur le développement du leadership transformationnel à différents niveaux de l'armée (Ivey & Kline, 2010 ; Kane & Tremble, 2000 ; Stevenson, n.d.). L'objectif de cette étude est d'examiner les différences dans le leadership transformationnel entre les années académiques d'aspirant de marine et d'élève-officier (aspm/élof) du Collège militaire royal du Canada (CMR). La relation entre l'atmosphère éthique, la personnalité et le leadership transformationnel sera également examinée dans cette étude. Aspm/élof ($n = 92$) en première ou troisième année d'études universitaires qui ont été recrutés dans le cadre des cours obligatoires de psychologie au CMR. Les aspm/élof ont répondu à des enquêtes sur le leadership transformationnel, la personnalité et le climat éthique, qui ont ensuite été évaluées à l'aide de tests T et d'analyses de régression. Les résultats montrent qu'il n'y a pas de différences statistiques dans le niveau de leadership transformationnel entre les étudiants de première et de troisième année, ce qui suggère qu'il n'y a pas de différences significatives dans le leadership transformationnel en fonction de l'année. En outre, l'agréabilité est la seule dimension de la personnalité qui prédit de manière significative le leadership transformationnel. Comme le CMR a récemment fait l'objet d'un examen externe indépendant et exhaustif par Arbour (2022), les résultats de cette étude peuvent fournir des renseignements supplémentaires sur le développement du leadership des aspm/élof dans le Programme de formation de officers – Force régulière et fournir des orientations futures sur la façon d'aborder les recommandations établies dans le rapport d'Arbour.

Acknowledgments

Firstly, I would like to thank Dr. Damian O’Keefe for proactively guiding me through the thesis writing process. He has been very involved since the beginning of this thesis, while also allowing me to practice critical-thinking skills on my own terms. He has dedicated numerous hours in support of this year-long project and has provided extremely relevant and applicable advice. Dr. O’Keefe has been very generous with his limited time and has never hesitated to help me better this thesis. For this, I am eternally grateful for his help and expertise.

I would also like to thank Dr. Allister MacIntyre for his endless wisdom in various subject matters and attention to detail. His feedback has always been thought-provoking and has consistently encouraged me to think beyond the surface level. I am extremely grateful for his invaluable insight that greatly added to the conceptualization of this thesis.

Finally, I want to thank Dr. Cindy Suurd-Ralph who has helped me along my journey in the honours psychology program. I have learned invaluable skills from her, which I have used to write this thesis and will carry with me into my future endeavours. Dr. Suurd-Ralph has been extremely accommodating to our thesis class and has never hesitated to offer her help to any student. She is knowledgeable, compassionate, and extremely hard-working and I want to acknowledge her efforts. She has been an integral part to my academic journey at RMC.

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Introduction

Throughout recent years, transformational leadership has been growing in popularity within the Canadian Armed Forces (CAF) as it is regarded to be rooted in the values of the Canadian military ethos (Department of National Defence, 2005). According to Burns (1978), transformational leaders are moral agents, whose efforts are directed toward the realisation of important social values and principles. The importance of transformational leaders in the CAF lies in the perception that transformational leaders are moral agents who have the ability to transform moral awareness in others and encourage social change as needed within the organization (Department of National Defence, 2005). As of late, the topic of leadership within the CAF has been the subject of interest and controversy due to various incidents regarding numerous high-ranking leaders within the organization.

Through the Independent External Comprehensive Review, also known as the Arbour report, it was determined that culture change was imperative to address the various pitfalls that the CAF has been struggling to remedy (Arbour, 2022). In particular, the Arbour report suggested various amendments to the Canadian Military Colleges (CMCs) which consist of both the Royal Military College of Canada (RMC) and the Royal Military College St-Jean. As institutions that look to train and develop future officers of the CAF, the program should be promoting and developing transformational styles of leadership as it is a unifying principle that holds the four pillars (academic, military, fitness, bilingualism) of the Regular Officer Training Program (ROTP) together. However, as identified in the Arbour report (2022), the Cadet Chain of Responsibility (CCOR), which is the primary opportunity for cadets in their senior years to acquire leadership positions within the colleges, creates an unfit learning environment for the development of leadership and is perceived as a catalyst for a destructive military culture at the CMCs. Given the agency of the Arbour report, this study will investigate the development of transformational leadership at RMC by examining the

differences in transformational leadership across different academic years. As well, the relationship between transformational leadership, personality and ethical climate will be explored to provide further insight on the development of leadership at RMC.

Transformational Leadership.

In his book *Leadership* (1978), Burns coined two types of leadership known as transformational and transactional leadership. Transformational leaders look for the “potential motives in followers, seek to satisfy high needs and engage in the full person of the follower” and encourage them to use these qualities to benefit the organization (Burns 1978, p. 4). Doing so can create a sense of responsibility and satisfaction within the followers to the organization, intrinsically motivating them to stay committed to the cause. Contrastingly, transactional leadership is characterized by how “leaders approach followers with an eye toward exchanging” where a mutual relationship of exchange is established and emphasized between a leader and a subordinate (Burns 1978, p. 4). This relationship is symbiotic in the sense that the subordinate offers the employer their time and resources to complete a task in exchange for experience and benefits from the employer. Unlike transformational leaders, the transactional relationship between leader and subordinate is not concerned with further development apart from the basic concept of exchange.

While the preference for a leadership style may vary depending on the nature of the organization or occupation, military psychologists and experts tend to agree that transformational leadership is the most effective leadership style when compared to transactional or other approaches to leadership (Department of national Defence, 2005; García-Guiu et al., 2016). Furthermore, transformational leadership is well backed by research with many documented positive effects on followers. For instance, Judge and Bono (2000) discovered that leaders who were rated as transformational by their subordinates were more satisfying and motivating to their subordinates, were more likely to be connected to

subordinates who expressed commitment to their organizations and were more likely to be rated as effective leaders by the leader's supervisor. Additionally, followers with transformational leaders tend to be happier overall as higher levels of peer-rated transformational leadership were found to correspond with higher levels of job satisfaction (Gonzales, 2016). Throughout many different instances, leaders who are perceived as more transformational are able to create more of a collective identity for the group (Boies & Howell, 2009). Although Burns (1978) suggests that the best leaders often engage in both transformational and transactional leadership, Breevaart and colleagues (2013) discovered that leaders are most effective on days where they display transformational leadership more frequently, followed by transactional contingent reward leadership.

Unpublished research by Stevenson revealed that officers at the middle and senior levels that were undertaking courses towards staff appointments became increasingly task-oriented, only addressing the basic needs of their followers. Officers at the trainee level who were taking a tri-service course that combined a three-year undergraduate degree were reported to prefer behaviours that allowed their followers to achieve a level of self-actualization. These findings are concerning given that other studies have reported that higher-ranking officers exhibit greater levels of transformational leadership compared to lower-ranking officers who were perceived as being more passive and less transformational (Kane & Tremble, 2000). Furthermore, it was reported that although lower-level subordinates frequently want to be intellectually stimulated, middle and senior-level officers do not associate intellectual stimulation with satisfaction or extra effort from their subordinates (Stevenson, n.d.). As a result, the preference for task-contingent behaviours can lead to an unsatisfying work environment devoid of challenges to stimulate thoughtful development from followers. These trends can have concerning implications for N/OCdts as the CCOR intends to reflect structures of leadership where senior cadets mirror the roles and

responsibilities of higher-ranking officers in the CAF. If senior cadets, who are role models and leaders of the college, are more transactional than their junior counterparts, they are not likely to engage in behaviours that encourage growth in themselves or their subordinates. As well, adopting task-oriented behaviours without looking to reinforce positive qualities in their followers may leave negative impressions on younger and suggestible junior cadets. As an institution where the “untrained [lead] the untrained”, ineffective leadership may prompt junior cadets to adopt leadership styles that are not conducive to the efforts towards culture change nor the development of future leadership of the CAF (Arbour 2022, p. 225).

Personality as a Predictor of Transformational Leadership

Past and present literature suggests that there are links between personality and transformational leadership (Hautala, 2006). In particular, the five-factor model of personality highly pertains to the study of leadership as it is a categorization of five dimensions that appear across many different demographics, languages, and self-reports (McCrae & John, 1992). The five-factor model of personality has also been shown to be a predictor of transformational leadership (Cavazotte et al., 2012; Judge & Bono, 2000; Lim & Ployhart, 2004), portraying the importance of considering personality when addressing the topic of leadership. For these reasons, this study will look at personality as a predictor of transformational leadership within the N/OCdts of RMC. The personality dimensions include openness, conscientiousness, extraversion, agreeableness, and neuroticism.

Openness to experience represents an individuals' tendencies to be creative, introspective, imaginative, resourceful, and insightful (John & Srivastava, 1999). Due to the creative nature of individuals high in openness to experience, they are more likely to score high on intellectual stimulation and display inspirational leadership behaviours related to transformational leadership (Bono & Judge, 2004). Given the association between the characteristics of the openness dimension, many effective army officers are characterized by

high openness (McCormack & Mellor, 2002). Throughout the published literature, openness to experience is shown to be a significant correlate of transformational leadership (Judge & Bono 2000). For these reasons, it is believed that openness will predict transformational leadership within N/OCdts at RMC.

According to Costa and McCrae (1992) conscientious individuals tend to have a strong sense of direction and work hard to achieve goals while also being cautious, deliberate, self-disciplined, neat, and well organized. This suggests a link between conscientiousness and contingent reward which is typically a characteristic of transactional leadership (Costa & McCrae, 1992). However, Cavazotte et al., (2012) found that conscientiousness was the only Big Five personality trait that influenced leader effectiveness through transformational leadership. Since high levels of conscientiousness are an important predictor of success in leadership positions, leaders are more likely to positively influence the performance of their team (DeRue et al., 2011). This is a prime characteristic of transformational leadership (Burns, 1978). A meta-analysis of 58 studies supports this reasoning as Deinert and colleagues (2015) observed a positive relationship between conscientiousness and transformational leadership. For these reasons, it is hypothesized that conscientiousness will predict transformational leadership within N/OCdts.

Individuals high in extraversion are often described as assertive, active, talkative, upbeat, energetic, and optimistic (Costa & McCrae, 1992). Within the literature, extraversion is generally positively related to transformational leadership (Lim & Ployhart, 2004). As well, extraversion was one of the strongest predictors of transformational leadership in counsellor educators (Lopez-Perry, 2020). Since extraverts are more positive, ambitious and influential (Bono & Judge, 2004), they are more likely to exhibit inspirational leadership that generates confidence and enthusiasm within followers. Judge and Bono (2000) also found that extraversion emerged as a significant correlate of transformational leadership and, in a

subsequent meta-analysis (Judge & Bono, 2004), extraversion appeared as the strongest correlate of transformational leadership behaviour ratings. For these reasons, it is predicted that extraversion is a predictor of transformational leadership in N/OCdts.

The dimension of agreeableness includes the tendency to be cooperative, trusting, compliant, and kind (Costa & McCrae, 1992). The literature generally suggests that agreeableness is one of the strongest predictors of transformational leadership (Judge & Bono, 2000; Lopez-Perry, 2020). Contrastingly, a longitudinal study conducted by Jackson et al., (2012) found that military training was associated with decreases in the agreeableness trait. Their results indicate that, after two years of military service, military recruits exhibited lower levels of agreeableness when compared to their civilian counterparts. However, considering that transformational leaders tend to be oriented around the members of the organization, higher levels of agreeableness and extraversion would be necessary to effectively interact with and motivate subordinates (Judge & Bono, 2000; Prochazka et al., 2018). For these reasons, it is predicted that agreeableness will be a predictor of transformational leadership in N/OCdts.

Individuals with high levels of neuroticism are inclined to view the world through a negative lens (Bono & Judge, 2004). Costa and McCrae (1992) suggest that the core of individuals high in neuroticism is the tendency to experience negative effects, such as fear, sadness, guilt, emotional instability, and anger. Given that individuals high in neuroticism are not likely to have positive visions for the future due to the presence of negative effects, they may be too anxious to manage transformational change efforts (Judge & Bono, 2004). The literature supports this reasoning as neuroticism generally cultivates adverse effects on transformational leadership (Lim & Ployhart 2004; Lopez-Perry, 2020). Neuroticism has also been shown to not be related to transformational leadership at all (Judge & Bono, 2000;

Prochazka et al., 2018). For these reasons, it is hypothesized that neuroticism will negatively predict transformational leadership is N/OCdts.

Ethical Climate

Victor and Cullen defined ethical climate as “the shared perception of what is correct behaviour, and how ethical situations should be handled in an organization” (1987, p. 51). The ways in which ethical issues are addressed and corrected are determined by the ethical climate of an organization (Teresi et al., 2019). In military organizations that are highly engaged in ethics, these shared perceptions of procedures and policies govern the ethical behaviours of its members. In turn, it is expected that the members represent the core values that are both internal and external to the organization. Ethical climate has been shown to be a fundamental aspect of organization life that is predictive of positive and negative behaviours from its members (Teresi et al., 2019). Although there are five dimensions of ethical climate (caring, independent, law and code, rules, and instrumental, this paper will only concern two dimensions: rules; characterized by the emphasis on company procedure and rules by everyone in the organization, and caring; characterized by the way that employees will look out for each other’s good (Victor & Cullen, 1988). As Burn’s (1978) theory of leadership highlights a contrast between task-oriented (transactional) and people-oriented (transformational) styles of leadership, the dimensions of rules and caring may be potential correlates of transactional and transformational leadership respectively. Since an emphasis on task tends to relate to rules while an emphasis on people relates to caring, only the dimensions of rules and caring were chosen because they are frequent predictors of ethical behaviour (O’Keefe et al., 2019; Vardi, 2001).

Despite the limitedness of research, Engelbrecht et al., (2005) found a positive relationship between transformational leadership and ethical climate as transformational leaders have the ability to significantly impact the ethical performance of organizations.

Furthermore, a positive relationship between transformational leadership and altruism was observed. By definition, altruism is a core ethical value of transformational leadership that is manifested in the helping behaviours of others without the expectation of an external reward (Kanungo & Mendonca, 1996). Consequently, leaders can only be perceived as transformational if they are driven by altruistic motives and actions while simultaneously displaying consistency between their words and actions (Engelbrecht et al., 2005). Leaders who act transformational through inspiration but are self-serving and have little care towards their subordinates engage in pseudo transformational leadership (Christie et al., 2011). As the caring dimension is concerned with the extent to which employees look out for one another, it is associated with the core transformational value of altruism (Chen & Tang, 2024). This is reflected in the literature as the caring dimension emphasizes the importance of considering the interests of others and using altruism as a basic guideline for identifying and resolving ethical issues (Zhu et al., 2022). On the other hand, the rules dimension may be more associated with transactional leadership given its emphasis on task completion and strict procedures. According to Groves and LaRocca (2011), transactional leaders are said to value obedience and adopt an avoidance approach, which greatly relies on laws and rule-following while emphasizing procedural fairness. Nevertheless, Sagnak (2010) was able to determine that transformational leadership was positively related with the rules dimension in elementary schools.

Current Study

This study aims to further explore the patterns observed from Stevenson's unpublished work given its applicability to the Arbour report (2022) and the current state of the leadership program (CCOR) at RMC. Specifically, this study will examine whether there are differences in transformational leadership across different academic years of N/OCdts. The personality facets of N/OCdts as described by the five-factor model of personality

(openness, conscientiousness, extraversion, agreeableness, and neuroticism) will be investigated as predictors of transformational leadership. Furthermore, the ethical dimensions of rules and caring were identified as factors that predict transformational leadership in N/OCdts.

This study predicts that:

Hypothesis 1: N/OCdts in third year will display less transformational behaviours than first year N/OCdts.

Hypothesis 2: Openness, conscientiousness, extraversion, and agreeableness will positively predict transformational leadership in all N/OCdts while neuroticism will negatively predict transformational leadership.

Hypothesis 3: Perceptions of ethical climate pertaining to rules and climate will predict transformational leadership for all N/OCdts.

Methodology

Participants

The initial sample before cleaning consisted of a convenience sample of undergraduate students at RMC enrolled in first- and third-year psychology courses offered in English or French (PSE103, PSF103, PSE301, PSF301) ($N = 138$). Participants completed demographic information concerning gender (Male $N = 107$; 77.5%, Female $N = 27$; 19.6%, Gender Diverse $N = 3$; 2.2%, Prefer not to say $N = 1$; .7%), language (83.3% English, 16.7% French), group membership (63.0% Caucasian, 3.3% Indigenous, 3.3% Person with Disability, 33.7% Visible Minority, 4.3% Prefer not to say), age (2.9% under 18, 87.7% 18 to 24, 2.8% 25 to 34, 1.4% 35 to 44, 1.4% 45 to 54, 3.6% 55 to 64), faculty of study (29.0% Engineering, 55.8% Arts, 13.0% Science, 2; 1.4% Continuing Studies, 0.7% Applied Military Science), year of study (47.8% first year, 2.9% second year, 39.9% third year, 5.8% fourth year), and possession of bar positions (no position $N = 61$, bar position $N = 31$).

Measures

Transformational Leadership

Transformational leadership behaviours were measured using a modified version of the Transformational Leadership Scale (TLS) developed by Podsakoff and colleagues (1996). The original questionnaire instructed participants to rate the leadership tendencies of a previous leader they had through twenty-one items on a 3-point scale (i.e., *1 = strongly disagree; 3 = neither agree nor disagree; 5 = strongly agree*). In the present study, the wording of the scale was altered to instruct participants to recall and rate their own leadership tendencies in regards to transformational leadership behaviours. Higher scores indicate a higher level of transformational leadership. A sample item includes, *‘I foster collaboration among work groups*. The Cronbach alpha reliability coefficient was .85, suggesting good internal consistency reliability.

Personality

The OCEAN.20 was used to assess participants' personality using the five-factor model of personality (O’Keefe et al., 2012). Five different personality dimensions were assessed: openness (4 items, e.g., *“I am highly interested in all fields of science”*, $\alpha = .65$), conscientiousness (4 items e.g. *“I like to keep all my belongings neat and organized”*, $\alpha = .87$), extraversion (4 items e.g. *“I am a very shy person”*, $\alpha = .88$), agreeableness (3 items e.g. *“I always treat other people with kindness”*, $\alpha = .67$), and neuroticism (4 items e.g. *“My feelings are hurt easily”*, $\alpha = .80$).

Note that the original four-item agreeableness dimension had a low alpha coefficient (i.e., .57) which was below acceptable standards. Upon closer inspection, it was determined that one item, *sympathetic*, had a low correlation with the other three items and as such was eliminated, increasing the alpha reliability to .67. Participants rated all dimensions using a 7-point scale (i.e., *1 = extremely uncharacteristic; 2 = quite uncharacteristic; 3 = slightly*

uncharacteristic; 4 = neither characteristic or nor uncharacteristic; 5 = slightly characteristic; 6 = quite characteristic; 7 = extremely characteristic). All extraversion items were reverse coded (i.e., $1 = 7; 2 = 6; 3 = 5; 4 = 4; 3 = 5; 2 = 6; 1 = 7$).

Ethical climate

The Canadian Forces Organizational Climate Questionnaire was used to measure the organizational climate as it pertains to rules and caring (Kelloway et al., 1999). The “Rules” scale assesses the tendency for the organization to emphasize following rules and consists of seven items. Higher scores on this scale indicate the higher likelihood of the participant’s organization to follow the rules it sets for itself. A sample item includes, ‘*This organization enforces the rules and regulations*’ ($\alpha = .84$).

Caring, refers to the likelihood that individuals in the organization look out for one another and includes five items. Both rules and caring scales are assessed using a 5-point rating scale (i.e., $1 = strongly\ disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly\ agree$) to describe their organizational climate. Higher scores on this scale indicate the higher likelihood of the participant’s organization to care about its employees. A sample item includes, ‘*In this unit we look out for one another*’ ($\alpha = .86$).

Procedure

Ethics approval was received through the Research Ethics Submission Board (REB, see Appendix). Students enrolled in a mandatory first or third-year psychology class were recruited through their course coordinator. A list of interested candidates were provided to the lead researcher who directly invited them to take part in the study through a standardized invitation over a webmail platform (See Annex A).

No deception occurred in this study. Participants were able to choose whether they preferred to complete the questionnaire in English or French. Since participants were full-time students, the distribution of the research invitation did not take place two weeks prior to

exam periods to avoid overwhelming students. Once participants clicked on the survey link that was platformed on SurveyMonkey, they were brought to a page with a general overview of the study and informed consent was received if participants agreed to continue with the survey questions. After participants completed demographic information, they were able to complete the three measures. If participants fully completed the survey, they were provided with a 2% bonus to their final course grade.

Post Data Collection Cleaning

Several techniques were used to screen the data. Firstly, 10 records were eliminated due to non-attendance: two records were non-attending due to their consecutive ascending and descending responses, three records consistently chose all the same numbers for every response, and five records were completely missing data,

Secondly, a reverse-coded item on the Caring scale was compared to the mean of non-reverse coded items. As the Caring scale was a 5-point scale, in accordance with Schmitt & Stults (1985), all scores above 2-points were eliminated from the dataset. A total of 36 records were eliminated. As such our sample was reduced from 138 to 92 (Male = 68, Female = 20, Gender Diverse = 3, Prefer not to say = 1).

Finally, to ensure statistical validity, the data were inspected for; normality using histograms, outliers using Cook's distance as recommended by Tabachnick and Fidell (2007: with Cook's d values greater than 1 suggesting outliers), multicollinearity using correlation analyses was used to determine multicollinearity using correlation analyses (factors greater than .80 indicative of multicollinearity), and Levine's test for homogeneity of variance using Levine's test. Through a visual inspection of histograms, each scale appeared relatively normal. Using Cook's test, there were no values greater than 1, as such no data was deleted based on outliers. A review of the correlation coefficients between study variable (see Table 1) indicates a correlation between agreeableness (measurement with 3 agreeableness items)

and agreeableness 4 (4 agreeableness items; $r = .92$), which suggests multicollinearity (see Table 1). However, for this study, I used the three-item measure of agreeableness in the main regression analysis. Finally, Levine's test of homogeneity of variables for all study variables found no difference in the distribution of the study variables on the basis of gender or year of study, suggesting that the assumption of homoscedasticity was met. Passing these tests of assumption, it was determined that the data in its original condition were appropriate to continue using.

Results

Preliminary Analysis

A t -test was conducted to determine if there were statistically significant differences in any of the study variables on the basis of gender or academic year.

Gender

The t -test found differences between female ($N = 20$) and male participants ($N = 68$) on one study variable. Participants who were gender diverse or opted not to disclose their gender were not included in this analysis. Males and females showed statistically significant differences on Conscientiousness, $t(81) = 2.07, p = .02$. The trend was that females scored higher ($M = 5.70$) on the conscientiousness measures compared to males ($M = 5.14$). As a result, gender was controlled for in the regression analyses.

Academic Year

The t -test found differences between first years ($N = 42$) and third years ($N = 42$) on one study variable. Given that this study was only concerned with first and third years, participants who identified that they were in second or fourth year that were enrolled in PSE103, PSF103, PSE301, PSF301 were not included in this analysis. First and third years showed a statistically significant difference on caring, $t(76) = -3.47, p < .001$. The trend

showed that first years ($M = 3.83$) report higher scores on caring compared to third years ($M = 3.26$). As a result, years of study was controlled for on the regression analyses.

Bar Positions

The t -test found no differences on any of the study variables between respondents on the basis of bar positions.

Correlation table.

As indicated in Table 1, the only significant correlation between transformational leadership and the study variables was agreeableness with 4-item ($r = .28, p = .009$). Agreeableness with the 3-item scale ($r = .35, p = .001$) was also significantly correlated with transformational leadership. Note that for main regression analysis, only the 3-item agreeableness scale was used.

T -test was used to test the first hypothesis (third year officers are less transformational than first years). There were no significant differences between first ($M = 3.55$) and third year cadets ($M = 3.47$) on transformational leadership $F(82) = .12, p = .73, CI\ 95\% [-.09, .24]$. As such, hypothesis 1 was not supported.

Regression Analysis

Hypotheses 2 and 3 were tested using hierarchical regression analysis. The control variables of gender and year of study were entered in step 1 and the main study variables were entered in step 2 (see Table 2).

The overall regression model predicting transformational leadership with all the hypothesized variables was statistically significant, $F(77) = 1.80, p = .08$, accounting for 16% of variance. There was no main effect for year of study ($b = .006, SE = .04, p = .87, CI\ 95\% [-.08, .07]$), or gender ($b = -.06, SE = .07, p = .42, CI\ 95\% [-.20, .08]$). As well, there were no main effects for rules ($b = .01, SE = .05, p = .80, CI\ 95\% [-.09, .12]$), caring ($b = .02, SE = .06, p = .75, CI\ 95\% [-.09, .13]$), openness ($b = .004, SE = .03, p = .90, CI\ 95\% [-$

.06, .06]), extraversion ($b = .03$, $SE = .03$, $p = .23$, CI 95% [-.02, .08]), and conscientiousness ($b = .03$, $SE = .04$, $p = .35$, CI 95% [-.04, .10]). There was a main effect for agreeableness ($b = .136$, $SE = .05$, $p = .007$, CI 95% [.04, .23]), such that respondents who score higher in agreeableness scored higher in transformational leadership. To this end, there was no support for hypothesis 3 and partial support for hypothesis 2 in that agreeableness predicted transformational leadership.

In summary, the correlational t -test, and regression analysis indicate that agreeableness was the only significant predictor of transformational leadership.

Table 1

Correlations for control variables, predictors, and criterion

	M	SD	1	2	3	4	5	6	7	8	9
1. Transformational leadership	3.52	.36	1								
2. Rules	3.42	.73	.10	1							
3. Caring	3.54	.76	.14	.24*	1						
4. Openness	4.17	1.30	.04	-.09	-.02	1					
5. Conscientiousness	5.19	1.15	.20	.12	.25*	.07	1				
6. Extraversion	3.92	1.47	.13	-.04	-.12	-.01	.03	1			
7. Agreeableness	5.52	.80	.35**	.17	.26*	.10	.21	.02	1		
8. Agreeableness.4	5.49	.70	.28**	.23*	.21	.09	.12	-.01	.92**	1	
9. Neuroticism	3.10	1.42	-.13	.04	.00	-.05	.18	-.23*	-.13	-.03	1

Note: $N = 92$, * = .10, ** = .05, *** = .001

Table 2

Hierarchical regressions showing personality and ethical climate variables predicting transformational leadership.

Transformational Leadership				
Predictors		ΔR^2	B	95% CI
Step 1		.01		
	Gender		-.09	[-.20, .08]
	Year		-.02	[-.08, .07]
Step 2		.15		
	Agreeableness		.32	[.05, .23]
	Extraversion		.12	[-.02, .08]
	Conscientiousness		.12	[-.03, .11]
	Openness		.01	[-.05, .06]
	Rules		.32	[-.08, .14]
	Caring		.12	[-.06, .17]
Total R ²	.16			
F	.12			
<i>n</i>	92			

Discussion

The purpose of this study was to explore possible differences in transformational leadership within different academic years at RMC. Additional objectives were to discover whether the transformational leadership levels exhibited by participants were influenced by

personality and ethical climate. Through a set of analyses, it was determined that the first and third hypothesis were not supported while the second hypothesis was partially supported.

Hypothesis 1 predicted that N/OCdts in third year would display less transformational behaviours than first year cadets. Using a *t*-test, it was determined that there were no significant differences between first- and third-year cadets on transformational leadership. The lack of difference in these results were rather surprising as the literature tends to suggest that transformational leadership is likely to increase with time and experience in the military. For instance, Kane and Tremble (2000) found that transformational leadership behaviours increase with rank as higher-ranking officers were perceived as more transformational and less passive than their junior counterparts. This was also true for Stadelmann (2010) who found that transformational leadership was more common in higher levels of the Swiss Armed Forces. Furthermore, Ivey and Kline (2010) found that the frequency of transformational leadership behaviours increased with rank in the CAF. However, Ivey and Kline (2010) prefaces that these differences were only significant in junior and senior non-commissioned officers (NCMs).

On the other hand, Dóci and colleagues (2020) found that time pressure has an indirect negative effect on transformational leadership through leaders' self-evaluations. Specifically, Dóci et al., (2020) found that when the level of time pressure exceeds the threshold in which an individual considers their average, their self-evaluations of transformational leadership behaviours decrease. Time pressure refers to the experience of time constraint that augments stress and the need to cope with time limitations (Ordóñez & Benson, 1997). As both an academic and military institution, the four-pillar program at RMC places considerable time and resource constraints on N/OCdts given the amount of time and resources that are needed into meeting various conflicting demands while balancing others. However, given the demographics of Dóci and colleagues' (2020) sample, which mostly

consisted of civilians working in agriculture, information technology, and logistics, these findings are not fully applicable to a military population. As such, time pressure may be a potential explanation to why there were no significant differences in transformational leadership among first- and third-year N/OCdts.

Given the previous research on personality and transformational leadership, hypothesis 2 proposed that openness, conscientiousness, extraversion, and agreeableness would positively predict transformational leadership in all cadets while neuroticism would be negatively related to transformational leadership. However, there was only a main effect for agreeableness, such that respondents who scored higher on agreeableness scored higher in transformational leadership. This is sensible because three of the agreeableness items are significantly similar to TLS. For instance, one of the items for agreeableness was “I always treat other people with kindness” which resembles an item from the TLS; “I show respect for my subordinates’ personal feelings. This result also aligns with previous research suggesting that agreeableness is a strong predictor of transformational leadership (Judge & Bono, 2000; Lopez-Perry, 2020; Prochazka et al., 2018).

Finally, it was predicted in hypothesis 3 that ethical climate would be associated with transformational leadership for all cadets. This hypothesis was not supported. Given that the caring climate was examined at an individual level even though it is an organisation factor, these nonsignificant results are not surprising. However, a statistically significant difference emerged between first- and third-years on the caring dimension of the ethical climate. Specifically, first years reported higher scores on the caring dimension compared to third years, suggesting that first years are more caring and supportive towards each other compared to third year N/OCdts. This demonstrates how there may be subcultures that influence ethical climate between academic years at RMC. Further research should inquire about the causes of cultural variation within this academic institution. Another reason to why ethical climate may

not have been associated with transformational leadership in this study is because there is a lack of leadership influence to encourage modelling of transformational leadership behaviours. According to Bandura (1977), behaviours are often learned through observation of others in the immediate environment. This process will be further discussed in the implications section.

Implications

There are various explanations to why the levels of transformational leadership remained the same between first- and third-year N/OCdts. Firstly, the culture of the RMC may not be conducive to the development of transformational leadership. The culture at RMC, like many military organizations, is based on hierarchy, similar to that of the old model of “head boys” (Arbour, 2022). This hierarchical structure was used in English private schools for boys, where upper-year students are held responsible for their junior peers (Arbour, 2022). Within an organization with a predominantly hierarchical culture, transactional and task-oriented leadership behaviours are preferred, such as organizing, regulating, monitoring, administering, coordinating, and preserving efficiency (Masood et al., 2006). This is not surprising as large organizations and government agencies, such as the CAF, requires the use of standardized procedures, multiple hierarchical levels, and an emphasis on rule reinforcement to maintain a rapid flow of information and regulation of its members (Masood et al., 2006). Given the prominence of rules within both RMC and the CAF, it may be harder to establish a basis for transformational leadership, which is more concerned with promoting innovation and empowerment rather than punishment (Jung & Sosik, 2002). Since RMC is a rules-based institution, the emphasis on rewards and punishment may further prevent the development of transformational leadership of future N/OCdts.

Another potential explanation for the absence of change might be the lack of learning opportunities to acquire transformational leadership behaviours. Although research suggests that transformational leadership can be taught and learned (Hamdani, 2018; Rolfe, 2011), there is a lack of formal education for the development of transformational leadership at RMC. For instance, all N/OCdts briefly learn about transformational leadership in a third-year mandatory psychology course (PSE and PSF301), which occurs about halfway through their career in the ROTP. Otherwise, transformational leadership is not explicitly taught or encouraged at RMC. According to Bandura (1977), people can learn appropriate behaviour by observing the actions of others. However, it may be more difficult for N/OCdts to learn transformational leadership behaviours through observation if the concept is only taught once or twice without examples of which to model their behaviour. It is likely that N/OCdts may be developing other kinds of behaviours in place of transformational leadership as well. Nicol (2007) found that N/OCdts developed more social dominance orientation (SDO) overtime at RMC. SDO refers to the tendency for individuals to value dominance, power, and superiority while favouring established disparity between groups (Nicol, 2009). SDO is not conducive of transformational behaviours as it was negatively correlated with consideration, suggesting that leaders high on SDO do not view their subordinates as important (Nicol, 2009).

Similarly, given the lack of learning opportunities, N/OCdts may lack motivation to reproduce transformational leadership behaviours as well. As the requirements of the four-pillar program, all N/OCdts must complete a command leadership position at the college. However, there is a lack of formal evaluation for students since the conditions for success are rather low; the only way to fail as a leader in the CCOR is if the position is revoked from a superior officer due to a disciplinary or administrative action. If individuals with barslate positions fulfil the minimum requirements, which are mostly oriented around tasks, they will succeed in the leadership pillar. Given that there is a lack of evaluation for transformational

leadership, there is a lack of agency in promoting this style of leadership in N/OCdts' leadership opportunities. Aligned with Social Cognitive Theory (SCT), agency is necessary to learn behaviours as it is the driving factor towards exerting influence over others (Schunk & DiBenedetto, 2020). Thus, there must be a sense of motivation to consistently reproduce these behaviours over time. Since transformational leadership behaviours do not negatively affect the completion, nor are they a requirement of the leadership pillar of the ROTP, there is no need or agency to develop transformational leadership behaviours. This has been heavily criticized by Arbour (2022), given the dangers of having the "untrained [lead] the untrained" (Arbour 2022, p. 225). Although training at RMC is not improving transformational leadership, fortunately, it is not making it worse either.

Limitations

These results could have been attributed to several limitations found within the study. To begin, the study had a rather small sample size ($N = 92$) which is not fully representative of N/OCdts at RMC. As this study was presented to all first- and third-years, ideally, it was expected that around 500 students would participate. Thus, this study heeds an 18.4% response rate. On another note, the sample was fairly representative of RMC's gender distribution, with 21.7% of participants being women, compared to 23% of the RMC population in 2021-22 (Arbour, 2022). Additionally, the study only looked at first and third years due to time constraints which unintentionally excluded approximately half the student population at RMC. Given the limited sample, it is difficult to make generalizations about how transformational leadership is developed over the four years of the ROTP. It also may have been more informative to include fourth year students given that there would be a larger difference in academic year and leadership experiences between first and fourth years. As well, this study was cross-sectional and data were only collected at one point of time which makes it difficult to establish a cause and effect. It would have been informative to collect

data at a second point in time in the future to better analyse transformational leadership behaviours over a period of time. Participants were also provided an incentive to complete the surveys involved in the study which may have adversely influenced their responses. Finally, all measures involved self-reporting which may be subject to mono-method bias.

Future Directions

Future research should take a deeper look within the concepts of this study. Firstly, this study should be made into a longitudinal study in order to look at how transformational leadership behaviours develop between all four years at the college. While this study found that there are no significant differences in transformational leadership between first- and third-year N/OCdts at RMC, the initial level of transformational leadership was not taken into consideration. As such, it is not known if N/OCdts started out with low, average, or high levels of transformational leadership at the beginning of the study and it would be interesting to see where the level of transformational leadership starts initially and how it develops overtime. This may help determine if candidates who enrol in the ROTP arrive at RMC with high levels of transformational leadership to begin with. In addition, personality should be measured in N/OCdts over the period of the four-year program to provide insight on how training at RMC impacts certain personality traits. Since this study found that agreeableness is a predictor of transformational leadership, levels of agreeableness should also be measured in future studies. As Jackson and colleagues (2012) found that agreeableness in military recruits decreased overtime due to military training, it would be insightful to take a deeper look into if and how training at RMC influences levels of agreeableness in N/OCdts. This may also provide further direction on how to improve both the training and culture at RMC to foster transformational leadership and its predictors.

Research also suggests that transformational leadership can be learned (Hamdani, 2018) which is why it is important that students have an opportunity to learn such skills.

Specifically, Dvir and colleagues (2002) demonstrated that transformational leadership can be trained in a military sample and have benefits as infantry cadets in the Israel Defence Forces who underwent transformational leadership training had more positive impacts on their follower's performance than cadets that did not undergo this training. Given the success of this study, it may be worthwhile to implement workshops or training sessions focused on developing transformational leadership behaviours at RMC. For instance, Dvir and colleagues (2002) implemented workshops that engaged in role playing, group discussions, simulations, presentations, video cases, and peer and trainer feedback which ultimately increased transformational leadership in military recruits. This is in line with research by Tompson and Dass (2000) who suggest that behaviourally oriented concepts, such as leadership, require pedagogical techniques (e.g., experiential learning, simulations, role-plays) in order to encourage emotional arousal in a psychologically safe environment.

Officers should focus on developing their transformational leadership abilities because it can positively influence the learning experiences of their personnel, which in turn affects their learning commitments and need for growth (Lin et al., 2020). For military professionals, transformational leadership has been shown to encourage increased voluntary efforts in personnel belonging to the Swiss Armed Forces (Stadelmann, 2010). Moreover, transformational leadership is especially applicable during the current period of reform and culture change that the CAF is undergoing. According to Faupel and Süß (2018), transformational leaders possess the capacity to enhance their subordinates' perception of positive outcomes as a result of change which can inspire them to actively support change through their actions. Employees are also more inclined to support change efforts when they perceive that it could personally benefit them (Faupel & Süß, 2018). Given the importance of transformational leadership in times of change, future research should look to ensure that this leadership style is being employed to its full potential. As an institution that aims to educate

and develop ethical officers, it is a crucial time to revisit the leadership curriculum that ultimately shapes the future officers of the CAF.

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Appendix A

**Factors Affecting Ethical and Transformational Leadership
Research Invitation Email**

As a student currently enrolled in PSE 103 Introduction to Human Psychology, PSE 301 (Organizational Behavior and Leadership), or PSE 401/PSF 401 (Military Professionalism and Ethics), you are invited to participate in a research project for bonus points towards your course.

This research is being conducted by professors in the MPL department and has been approved by the Royal Military College Research Ethics Board.

The purpose of the research study is to assess the link between personal factors, such as personality, values, and moral identity, and situational factors, such as perceptions of ethical climate, and ethical and transformational leadership.

This is a completely voluntary activity, and you will not be penalized for choosing not to participate.

What's involved?

Participation will entail completing an online survey that asks questions related to factors that may influence your leadership style. This is a multi-year study, so if you are in first year, you will be asked to complete the survey in Year 1, Year 3, and Year 4. If you are in 3rd year, you will be asked to complete the survey twice (3rd and 4th year), and if you are in 4th year, you will be asked to complete the survey once. The first survey is estimated to take about 20-30 minutes to complete.

What will participants get in return?

Participants will earn two percentage points (2%) for completing each survey, towards their final PSE 103, PSE 301, or PSE 401 course grade.

How will bonus points be tracked?

If you choose to participate, your RMC email address will be used to track the percentage points that you earn. Only the researchers will be able to determine who participates. At the end of the semester, the researchers will submit a list of participant names and earned bonus points to the course coordinator or instructor, who will add these points to your final course grade.

How to participate?

Click on the link below to access the [survey](#). This survey will remain active until (insert date).

If you have any questions or concerns about the ethical aspects of this study, please communicate them to the RMC Research Ethics Board via email at reb-cer@rmc.ca.

Regardless of your decision to participate, you may learn about the findings of this research by contacting the lead researcher (wendy.darr@forces.gc.ca).

Annexe A
**Élaboration d'une évaluation de l'intégrité
Invitation à la recherche**

Vous êtes invité à participer à un projet de recherche pour des points bonis envers PSE 301 (Comportement organisationnel et leadership), PSF 103 (Introduction à la psychologie humaine), PSF 301 (Comportement organisationnel et leadership) ou PSF 401 (Professionnalisme et éthique militaire).

Cette recherche est menée par professeurs au département MPL et a été approuvée par le Comité d'éthique de la recherche du Collège militaire royal.

Il s'agit d'une activité entièrement volontaire et vous ne serez pas pénalisé si vous choisissez de ne pas participer.

De quoi s'agit-il? The following text will be TRANSLATED

La participation consistera à remplir un sondage en ligne qui pose des questions liées aux facteurs susceptibles d'influencer votre style de leadership. Il s'agit d'une étude pluriannuelle, donc si vous êtes en première année, on vous demandera de répondre au sondage en année 1, année 3 et année 4. Si vous êtes en 3e année, on vous demandera de répondre au sondage deux fois (3e et 4e année), et si vous êtes en 4e année, on vous demandera de répondre au sondage une fois. On estime que le sondage prend environ 20 à 30 minutes à remplir.

Que recevront les participants en retour?

Les participants se verront attribuer deux pourcents (2 %) pour avoir répondu le sondage, vers leur note finale du cours PSF 103, PSF 301, PSF 401.

Comment les points seront-ils suivis?

Votre courriel CMR sera utilisé pour suivre les points que vous obtiendrez. À la fin du semestre, le chercheur principal soumettra une liste des participants et leurs points au coordonnateur du cours ou à l'instructeur, qui ajoutera ces points à votre note finale du cours.

Comment participer?

Cliquez sur le lien ci-dessous pour accéder au sondage. Ce sondage restera actif jusqu'à (la date).

Si vous avez des questions ou des préoccupations concernant les aspects éthiques de cette étude, veuillez les communiquer au Comité d'éthique de la recherche du CMR, par courriel à reb-cer@rmc.ca.

Toute personne intéressée à connaître les résultats de cette recherche peut contacter le chercheur principal plus tard dans l'année.

Appendix B

Factors Affecting Ethical and Transformational Leadership Informed Consent

Purpose:

The purpose of the research study is to assess the link between personal factors, such as personality, values, and moral identity, and situational factors, such as perceptions of ethical climate, and ethical and transformational leadership.

RMC REB Approval Number:

This research project has been approved by the RMC Research Review Board. The SSRRB approval # is _____.

Participation:

As part of this research, you will be asked to complete a survey in Year 1, 3 and 4 of your RMC programme. In the survey, you will be asked questions about your values, moral efficacy, personality, as well as how you perceive the ethical climate and trust at RMC. The survey is estimated to take about 20 to 30 minutes.

You will receive two percentage points (2%) for completing the survey, for a total of two percentage points (2%) towards your final PSE 103, 301, or PSE 401 course grade.

Your participation is completely voluntary. You may withdraw from this session at any time with no negative impact.

The information you provide in this session will not be shared with your course instructor.

Risks:

The risks associated with participating in this research are low. You may experience minor discomfort from the amount of reading and thinking required in this session which is expected to be no greater than what would be required in your course.

Information you Provide:

Any personally identifying information collected during this session will be used strictly to track the points that you earn. All other information will be analyzed and reported at the

aggregate level only. At the start of the survey, you will be asked to create an anonymous research code so that your survey responses can be linked from one year to the next.

Future Uses of Data/Secondary Analysis

The anonymized data will be stored on a secure server controlled by National Defence and will be retained until a time when it is no longer required. This data may be accessible by the study investigators and used in future research (e.g., for research involving other similar tools).

ATIP Considerations:

The *Access to Information Act* and the *Privacy Act* entitles Canadian citizens, permanent residents of Canada, and individuals or corporations currently present in Canada to obtain copies of research reports and research information held in federal government files. Prior to releasing any information, the Director Access to Information and Privacy screens the information to ensure that the identities of individuals are not disclosed.

Questions/Concerns:

If you have any questions or concerns about the ethical aspects of this study, please communicate them to the RMC Research Ethics Board via email at reb-cer@rmc.ca.

Consent

Proceeding with this session indicates that you understand to your satisfaction the information provided to you about your participation in this research and that you agree to participate.

Annexe B
Facteurs affectant le leadership éthique et transformationnel
Consentement éclairé

Objectif

Le but de l'étude de recherche est d'évaluer le lien entre les facteurs personnels, tels que la personnalité, les valeurs et l'identité morale, et les facteurs situationnels, tels que les perceptions du climat éthique et le leadership éthique et transformationnel.

Approbation du Comité d'éthique de la recherche du CMR

Ce projet de recherche a été approuvé par le Comité d'éthique de la recherche du CMR. Le numéro d'approbation est le _____.

Participation

Dans le cadre de cette recherche, il vous sera demandé de répondre à un sondage au cours des années 1, 3 et 4 de votre programme CMR. Dans le sondage, on vous posera des questions sur vos valeurs, votre efficacité morale, votre personnalité, ainsi que sur la façon dont vous percevez le climat éthique et la confiance au CMR. On estime que le sondage prend environ 20 à 30 minutes à remplir.

Les participants se verront attribuer deux pourcents (2 %) pour avoir répondu le sondage, pour vers leur note finale du cours PSF 103, 301, ou PSF 401.

Votre participation est entièrement volontaire. Vous pouvez vous retirer de cette séance à tout moment sans conséquence.

Les renseignements que vous fournissez dans le cadre de cette séance ne seront pas communiqués à votre instructeur de cours.

Risques

Les risques associés à la participation à cette recherche sont faibles. Il se peut que la quantité de lecture et de réflexion requise au cours de cette séance vous procure un léger inconfort, mais la charge de travail ne devrait pas être supérieure à celle requise dans le cadre de votre cours.

Renseignements fournis

L'information permettant de vous identifier au cours de cette séance sera utilisée strictement pour suivre les points que vous gagnez. Tous les autres renseignements recueillis seront analysés et présentés uniquement sous forme de données compilées.

Utilisations futures des données et analyse secondaire

Les données anonymes seront stockées sur un serveur sécurisé contrôlé par le MDN et conservées jusqu'à ce qu'elles ne soient plus nécessaires. Les enquêteurs de l'étude pourront avoir accès à ces données et les utiliser dans le cadre de recherches ultérieures (p. ex., recherches portant sur d'autres outils similaires).

Considérations relatives à l'AIPRP

En vertu de la *Loi sur l'accès à l'information* et de la *Loi sur la protection des renseignements personnels*, tout citoyen canadien ou résident permanent du Canada ainsi que toute personne ou société actuellement au Canada a le droit d'obtenir des copies de rapports de recherche et de données de recherche conservées dans des dossiers du gouvernement fédéral. Avant de communiquer des renseignements, le directeur – Accès à l'information et protection des renseignements personnels examine les données pour s'assurer que l'identité des personnes concernées n'est pas divulguée.

Questions ou préoccupations

Si vous avez des questions ou des préoccupations concernant les aspects éthiques de cette étude, veuillez les communiquer au Comité d'éthique de la recherche du CMR, par courriel à reb-cer@rmc.ca.

Consentement

Le fait de participer à cette séance signifie que vous avez bien compris les renseignements qui vous ont été présentés concernant votre participation à cette recherche et que vous acceptez d'y participer.

Appendix C

Demographic Information

Please fill out the following:

RMC Email Address

(Type Email Address)

Course to attribute participation points to

PSE103/PSF103

PSE301/PSF301

PSE401/PSF401

Gender

Woman

Man

Gender Diverse

Prefer not to say

Self-Identification

Caucasian

Indigenous

Person with Disability

Visible Minority

Prefer not to say

Age

(Type age in years)

Faculty of Degree Program

Engineering

Arts

Science

Continuing Studies

Applied Military Science

Year of Study

1st Year

2nd Year

3rd Year

4th Year

Bar Positions

(Type in previous bar positions)

How many weeks of PSE401 have you completed?

(Type number in weeks)

Appendix D

Transformational Leadership Scale

Please rate the following items about yourself as a leader (1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree)

I am always seeking new opportunities for the cadet wing.

1. I paint an interesting picture of the future for my group.
2. I have a clear understanding of where the group is going.
3. I inspire others with my plans for the future.
4. I am able to get others to commit to my vision for the future.
5. I foster collaboration among work groups.
6. I encourage cadets to be “team players”.
7. I can get the group to work together for the same goal.
8. I am able to develop a team attitude and spirit among my cadets.
9. I act without considering my subordinates’ feelings.
10. I show respect for my subordinates’ personal feelings.
11. I behave in a manner that is thoughtful of my subordinates’ personal needs.
12. I engage with subordinates without considering their personal feelings.
13. I show my subordinates that I expect a lot from them.
14. I insist on only the best performance from subordinates.
15. I will not settle for second best.
16. I lead by “doing” rather than simply “telling”.
17. I act as a good role model to follow.
18. I lead by example.
19. I provide new ways of looking at things to my subordinates.
20. I have ideas that have forced my subordinates to rethink some of their own ideas that they have never questioned before.
21. I have stimulated my subordinates to think about old problems in new ways.

Annexe D

Échelle de leadership transformationnel

Veillez évaluer les éléments suivants vous concernant en tant que leader (1 = Tout à fait en désaccord, 2 = En désaccord, 3 = Ni d'accord ni en désaccord, 4 = D'accord, 5 = Tout à fait d'accord).

1. Je suis toujours à la recherche de nouvelles opportunités pour l'escadre des élofs.
2. Je présente une image intéressante de l'avenir de mon groupe.
3. Je comprends clairement où va le groupe.
4. J'inspire les autres avec mes plans pour l'avenir.
5. Je suis capable de faire adhérer les autres à ma vision de l'avenir.
6. Je favorise la collaboration entre les groupes de travail.
7. J'encourage les élofs à être des "joueurs d'équipe".
8. Je peux faire en sorte que le groupe travaille ensemble pour atteindre un objectif commun.
9. Je suis capable de développer une attitude et un esprit d'équipe chez mes élofs.
10. J'agis sans considérer les sentiments de mes subordonnés.
11. Je respecte les sentiments personnels de mes subordonnés.
12. Je me comporte de manière attentionnée à l'égard des besoins personnels de mes subordonnés.
13. Je m'engage avec mes subordonnés sans tenir compte de leurs sentiments personnels.
14. Je montre à mes subordonnés que j'attends beaucoup d'eux.
15. J'insiste pour que mes subordonnés donnent seulement le meilleur d'eux-mêmes.
16. Je ne me contente pas d'être en deuxième place.
17. Je dirige en "faisant" plutôt qu'en "disant".
18. Je suis un bon exemple à suivre.
19. Je mène par l'exemple.
20. Je fournis à mes subordonnés de nouvelles façons de voir les choses.
21. J'ai des idées qui ont forcé mes subordonnés à repenser certaines de leurs propres idées qu'ils n'avaient jamais remises en question auparavant.
22. J'ai stimulé mes subordonnés pour qu'ils réfléchissent à de vieux problèmes d'une manière nouvelle.

Appendix E

Personality - OCEAN 2.0

Using the following rating scale of 1-7 (1 = extremely uncharacteristic; 2 = quite uncharacteristic; 3 = slightly uncharacteristic; 4 = neither characteristic or nor uncharacteristic; 5 = slightly characteristic; 6 = quite characteristic; 7 = extremely characteristic), decide how well each of them describes you.

1. Silent
2. Neat
3. Sympathetic
4. Organized
5. Withdrawn
6. Kind
7. Quiet
8. I have thought a lot about the origins of the universe
9. I like to keep all my belongings neat and organized
10. I often have headaches when things are not going well
11. I am always generous when it comes to helping others
12. Sometimes I get so upset, I feel sick to my stomach
13. I am highly interested in all fields of science
14. I like to have a place for everything and everything in its place
15. I am fascinated with the theory of evolution
16. When I am under great stress I often feel like I am about to break down
17. I always treat other people with kindness
18. My feelings are easily hurt
19. I am a very shy person
20. I would enjoy being a theoretical scientist

Annexe E

Personnalité - OCEAN 2.0

Selon l'échelle proposée ci-dessous (1 = Ne me caractérise pas du tout, 2 = Ne me caractérise généralement pas, 3 – Ne me caractérise pas souvent, 4 – Ne me caractérise ni ne me caractérise pas, 5 – Me caractérise un peu, 6 – Me caractérise généralement, 7 – Me caractérise parfaitement), déterminez dans quelle mesure ils vous décrivent:

1. Taciturne
2. Soigné(e)
3. Compatissant(e)
4. Organisé(e)
5. Renfermé(e)
6. Gentil(le)
7. Tranquille
8. J'ai beaucoup réfléchi aux origines de l'univers.
9. J'aime que mes affaires soient rangées et organisées.
10. Quand une situation se complique, j'en ai souvent des maux de tête.
11. Je fais toujours preuve de générosité envers les autres.
12. Parfois, je me mets dans tous mes états au point que ça m'en rend malade.
13. Je suis très intéressé(e) par tous les domaines de la science.
14. Je pense qu'il y a une place pour tout et que chaque chose a sa place.
15. Je suis fasciné(e) par la théorie de l'évolution.
16. Quand je suis très stressé(e), il m'arrive de croire que je vais m'effondrer.
17. Je fais toujours preuve de bonté envers les autres.
18. Je me sens souvent blessé(e).
19. Je suis une personne très timide.
20. J'aimerais être chercheur(euse) en sciences pures.

Appendix F

Canadian Forces Organizational Climate Questionnaire: Rules and Caring

For each of the following statements, please rate the extent of your agreement concerning how things are right now in your home unit (not this course) using the following scale. The items that refer to your "unit" mean your immediate working unit in your home unit. The items that refer to the "organization" mean the CAF in general.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

RULES (i.e., organizational emphasis on following rules)

1. In this unit we go strictly "by the book."
2. It is very important to follow regulations here.
3. Everybody is expected to follow regulations to the letter.
4. Successful people in this unit adhere strictly to regulations.
5. In this organization we go strictly by the book.
6. This organization has regulations that are strictly followed.
7. This organization enforces the rules and regulations.

CARING

8. In this unit we stick together.
9. In this unit we look out for one another.
10. In this unit we protect each other.
11. In this unit, it is expected that each member takes care of his/her coworkers.

Annexe F

**Questionnaire à l'égard des conditions au sein de l'organisation des Forces canadiennes:
Compassion et règles**

Questionnaire à l'égard des conditions au sein de l'organisation des Forces canadiennes:
Règles et Compassion

Veillez évaluer dans quelle mesure vous êtes d'accord avec les énoncés ci-dessous à l'égard de la situation actuelle au sein de votre unité d'appartenance (pas dans l'unité du cours) en utilisant l'échelle fournie. Les énoncés mentionnant « l'unité » visent votre unité de travail immédiate au sein de votre unité d'appartenance. Les énoncés mentionnant « l'organisation » visent les FAC en général.

1	2	3	4	5
Tout à fait en désaccord	En désaccord	Neutre	D'accord	Tout à fait d'accord

RÈGLES (c.-à-d., accent mis par l'organisation sur le respect des règles)

1. Dans l'unité, nous agissons strictement selon les règles.
2. Dans l'unité, il est très important de suivre les règles.
3. Tous les membres de l'unité sont censés suivre les règles à la lettre.
4. Dans l'unité, les personnes qui connaissent du succès adhèrent strictement aux règles.
5. Dans l'organisation, nous agissons strictement selon les règles.
6. L'organisation a des règles qui sont suivies de façon stricte.
7. L'organisation applique ses règles et ses règlements.

COMPASSION

8. Dans l'unité, nous nous serrons les coudes.
9. Dans l'unité, nous prenons soin les uns des autres.
10. Dans l'unité, nous nous protégeons les uns les autres.
11. Il est entendu que chaque membre de l'unité doit veiller sur ses collègues.

Appendix G

Certification of Institutional Ethics Clearance

**ROYAL MILITARY COLLEGE OF CANADA • COLLÈGE MILITAIRE ROYAL DU CANADA**

PO Box 17000, Station Forces • CP 17000, Succursale Forces • Kingston, Ontario • K7K 7B4

Research Ethics Review Certificate

File number: MacIntyre_O'Keefe REB23230529
Project title: Factors Affecting Ethical and Transformational Leadership
Principal investigator: Allister MacIntyre
Collaborator: Damian O'Keefe
Date of latest (updated) submission: August 29, 2023
Anticipated commencement date: Sept 15, 2023
Date of certificate: August 30, 2023
Period of approval: 12 months – expiry date: August 31, 2024

Dear Dr. MacIntyre, and Dr. O'Keefe:

This is to inform you that RMC Research Ethics Board (REB) has reviewed the above-mentioned project for ethical compliance based on the updated documents submitted on the date indicated above. Your project can now proceed. This certificate is based only on the documents submitted and the language(s) presented.

REB certificates are effective for up to 12 months (per TCPS-2) after which the research requires additional review and approval for a subsequent period of up to 12 months. Prior to the expiry of the present approval, you are responsible for submitting an annual report to renew your REB certificate.

Any intentional changes to the protocol prior to the start of data collection must be submitted to and approved by the Chair of the REB before beginning data collection.

Researchers should not proceed with a project if unforeseen changes to the protocol threaten participants' right to informed consent or place participants at a higher level of risk than anticipated. Such unforeseen changes to the protocol during the conduct of the research must be communicated to the REB Chair within four working days, as well as the actions taken to protect the dignity of participants.

Any undesirable experience or response (adverse event) from participants during their involvement in the study must also be reported to the REB Chair within four working days, as well as actions taken by the research team to protect the participants. Such adverse events may be emotional, psychological, physiological, or physical in nature.

For the duration of the research project involving humans, you are expected to comply with the oversight requirements of the RMC REB, including documenting changes, reporting incidents or adverse events and annual/final reporting responsibilities.



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PO Box 17000, Station Forces • CP 17000, Succursale Forces • Kingston, Ontario • K7K 7B4

If the principal investigator or collaborator for this study changes, you must immediately advise the RMC REB. If the principal investigator or collaborator is affiliated with a different institution, we will require proof of REB clearance from that institution's Research Ethics Board and all application documentation. The RMC REB may or may not recognize the research ethics board of a different institution as the board of record.

This certificate does not extend to RMC students who may be involved in the study or utilize data from this study for credit in courses, directed research projects, or thesis work. All RMC students are required to submit their own REB review application, signed by their supervisor. Students of other institutions must abide by their institution's research ethics requirements.

The conditions indicated above are subject to conditions stated in [DAOD 5062-0](#) and [DAOD 5062-1](#). All researchers are obliged to comply with those directives, including cooperating fully with all applicable research ethics boards.

Very best regards,

A handwritten signature in black ink, appearing to read 'Nicole Bérubé'.

Nicole Bérubé, PhD
Chair, RMC Research Ethics Board
reb-cer@rnc-cmr.ca