©EIJEAS 2018 Volume: 4, Issue: 9, 91-110, Ohio, USA
Electronic International Journal of Education, Arts, and Science
http://www.eijeas.com

Transformational Leadership, Organizational Climate and Individual Creativity from a Military Culture Perspective

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Abstract

The goal of the current study was to advance understanding of the relationship between transformational leadership and follower creativity in a military context. We examined how followers' individual perceptions of transformational leadership are related to their individual creativity under the boundary condition of organizational innovative climate in a military context. As a typical military culture is characterized with features like high hierarchy, formal management structures, conservatism, emphasis on status quo, and high formalization; leadership, climate and creativity variables seem a good avenue of research for such contexts. The results suggested that transformational leadership was significantly associated with individual creativity and the strength of this relationship was contingent upon innovative climate. The study extends the prior work on creativity in several ways. First, this study made a contribution toward a better understanding of the relationship between transformational leadership and creativity in a military context, which is not always expected to favor creativity. Second, the study examined an important moderator that has been neglected in previous research in military contexts: organizational innovative climate.

Keywords: transformational leadership, creativity, climate, military culture

Introduction

The term creativity is usually associated with scientific, artistic or business fields. Almost everybody knows Albert Einstein, Michelangelo, or Steve Jobs, but definitely not military examples. It is rather interesting that being creative is often not a characteristic attributed to military leaders.

However, it is quite certain that creativity and innovation is crucial not only for civilian but also for military organizations. In a war, it is not usually possible to overwhelm an adversary with already known and tested doctrines and techniques i.e. with *uncreative* means. Furthermore, it would not be an exaggeration to state that the complexity of the future operational environment will require military leaders to find creative solutions to complex problems. As the creative leadership has been defined as "deliberately engaging one's imagination to define and guide a group toward a novel goal—a direction that is new for the group" (Puccio, Murdock & Mance, 2011, p. 40), it deserves more attention in military contexts.

The field of industrial and organizational psychology has witnessed a growing interest in understanding factors that foster employee creativity. Previous research indicates that these factors can be attributed to personal and contextual factors. In that sense, as one of the important contextual factors, the role of leadership as an important driver for employees' creativity has been examined in a growing trend by the researchers (Mumford, Scott, Gaddis, & Strange, 2002; Shin & Zhou, 2003; Gumusluoglu & Ilsev, 2007).

Although transformational leadership is expected to be related to follower creativity, the previous studies yield inconsistent results and meta-analytic findings indicated a high variation in the relationship between transformational leadership and creativity (Rosing, Frese, & Bausch, 2011; Vessey, Barrett, Mumford, Johnson, & Litwiller, 2014; Qu, Janssen, & Shi, 2015; Tarman, 2018). Due to these inconclusive findings, researchers have begun to examine the transformational leadership–follower creativity relationship in order to consider through what explanatory mechanisms (via what mediators) and under what boundary conditions (in the presence of what moderators) transformational leaders might promote followers to engage in creativity (Qu, Janssen, & Shi, 2015). The purpose of the present study was to contribute to addressing this important yet relatively unclear issue with one possible moderator that has been neglected in previous military research: organizational climate (i.e. innovative climate). As the military organizations differ significantly with civilian

organizations in terms of culture and climate, organizational climate seems a good avenue of research for such contexts.

Theoretical Model and Hypotheses

Creativity

The creativity is defined as the production of ideas, products, or procedures that are (a) novel and (b) potentially useful or practical (Amabile, 1996). Considerable empirical evidence suggests that individual level creativity makes a significant contribution to organizational effectiveness. Because of this need for creativity, organizational researchers have increasingly put much effort into understanding factors that affect individual creativity in the workplace.

The literature indicates that creativity has been operationalized as a relatively enduring and largely stable personality trait (Hennessey & Amabile, 2010). Based on this premise, researchers compromises on the fact that creativity is a complex psychological construct influenced by personal, contextual and environmental characteristics. Current literature on creativity indicates that individual creativity in the workplace is influenced by individual differences such as personality (e.g., Zhou & George, 2003); intrinsic motivation (e.g., Oldham & Cummings, 1996); intelligence (e.g., Vincent, Decker, & Mumford, 2002), polychronicity (Kayaalp, 2014); and attitudes (e.g., Basadur, Runco, & Vega, 2000). Creativity is also affected by organizational factors such as climate (Amabile & Gryskiewicz, 1989), team composition (Scott & Bruce, 1994), and leadership (Wang & Zhu, 2011).

As stated in the introduction, although creativity is not usually associated with military, the creativity of military personnel is not unimportant when compared with that of civilian personnel.

Military Creativity

Different from the civilian jobs, military is renowned with its uniqueness in that employment is more than just a simple job choice, maybe a way of life. Although civil and military cultures share numerous common aspects, they differ in many ways as well. For example; while civil culture underlines liberty and individuality (Kotluk & Kocakaya, 2018; Damgaci & Aydin, 2014), military culture understandably emphasizes values such as discipline, self sacrifice and collectivity that stem from the imperative of military effectiveness and success on the battlefield (CSIS Report, 2000). Similarly, Bowen (1989) underlined that civilian organizations, unlike military ones, do not expect such a dedicated

obligation from their employees. It is a unique profession in that its personnel are expected to sacrifice their lives for the country when and where necessary.

Due to these unique features, the military has developed a culture that is quite distinct from society as a whole (Vego, 2013). It is quite understandable that the most distinct feature of this culture is its centralized and hierarchical command structure. It is rather hard to say that this culture always favors creativity. In military, straight solutions and approaches are usually more preferable to drastic solutions to new challenges. Besides, it is widely accepted that the concepts, doctrines, standard operating procedures and numerous regulations have been written with the light of accumulation of thousands of years of experience. They all, understandably, aim to ensure conformity, which might have the potential to prevent creativity. However, military history indicates that success in combat come mostly with creativity. Military history is replete with vey well known creativity examples, which clearly indicate that out-of-the-box or *out-of-the-doctrine* acts and decisions should not be regarded as unacceptable taboos. Vego (2013) underlined that creativity of military leaders actually means their ability to find workable, novel solutions to problems they encounter. Sternberg (2005) cites four key factors that appear to inspire creativity for civilian organizations: turbulence, pull forces, exploitation potential, and competitive pressure. The term *turbulence* refers to instability or the change in the environment, which are also the well-known characteristics of combat field. The operational environment requires that military leaders be skilled in finding creative solutions to problems in the uncertain and complex environment. The need for such leadership will definitely be more crucial in the future as it is in the past. According to the US Army Human Dimension Concept (2014), the future operational environment will challenge Army leaders with complexity in which threats of regular, irregular, terrorist, and criminal elements will be widespread. Such an environment will definitely force army leaders to find creative solutions to solve multiple dilemmas in shorter periods (Kayaalp, 2015a). Because; if the commanders decide and act in a conventional and traditional manner, the chance of success lowers significantly as the enemy will probably guess the act. As one of the principles of war, surprise requires striking the enemy at a time, at a place, or a manner for which he is unprepared. It would not be an exaggeration to state that only creative acts could achieve such a surprise effect.

Creativity is not only important in war times but also in peace times (Kayaalp, 2015b). As a matter of fact, the military is experiencing similar processes and dynamics as civilian

organizations. For instance, due to the negative impact of economic crisis on defense budgets, the militaries of the world are undergoing downsizing and restructuring. (Jordan, Schraeder, Feild, & Armenakis, 2007). The armies that do not keep up with the pace of external change run the risk of losing their ability to survive and not accomplishing their missions. So, not different from civilian organizations, they must take the necessary steps to tap personnel's creativity and channel it towards organizational innovation in both peace and war times.

As the individual creativity is relatively untouched topic for military, there is an urgent need for understanding of creativity that takes the contextual differences into consideration.

Leadership and Creativity

In view of the dominant role of leadership in the workplace, one key contextual aspect that may have considerable influence on creativity is leadership. Given the dynamic environment of today's organizations, "a hallmark of contemporary leadership is the capacity to foster employee creativity" (Tierney, 2008). Basadur (2004) argues that leadership has less to do with matching the "right" traits or behaviours to the "right" situation and more to do with how leaders involve others in thinking together in innovative ways. Creative thought is a complex form of high-level cognition (Finke, Ward, & Smith, 1992), in which affect and motivation will be important. Of course, leadership is one of the most significant factors to influence affect and motivation of subordinates. Mumford et al. (2002) defined leader's role in fostering creativity as "the exercise of influence to increase the likelihood of idea generation by followers and the subsequent development of these ideas into useful product" (p. 706).

Transformational leadership, in particular, has been studied intensively by leadership researchers in recent years (Avolio, Bass, & Jung, 1999; Judge & Bono, 2000). The concept of transformational leadership was first developed by James McGregor Burns in 1978 during his study of political leadership. With a more philosophical approach, he defined leadership as "leaders inducing followers to act for certain goals that represent the values and the motivations – the wants and needs, the aspirations and expectations – of both leaders and followers" (Burns, 1978, p. 19).

Bass and Avolio (1989) explained the transformational leadership with four dimensions, referred to as the "Four I's: *idealized influence*, behaviors that results in follower admiration, respect, and trust in the leader; *inspirational motivation*, behaviors that provide meaning and challenge to work and task; *intellectual stimulation*, behaviors that encourage

followers to challenge the status quo and promote and reformulate problem; *individualized consideration*, behaviors that address individual employee needs.

Research indicates that transformational leadership fosters creativity, both with a direct relationship and an indirect relationship mediated or moderated by contextual factors. For example, Gumusluoglu and Ilsev (2007), in their study examining the effects of transformational leadership on employee creativity and organizational innovation on Turkish entrepreneurial software development companies, found a significant positive relationship between creativity and transformational leadership. Similarly; Sosik, Kahai, and Avolio (1998) found that groups led by higher transformational leadership generated more idea elaborations and original solutions than groups led by lower transformational leadership. In a study on groups, Jung (2001) suggested that participants who were in the transformational leadership condition generated ideas of higher creativity than those in the transactional leadership condition. In a study completed in Australia, Reuvers, van Engen, Vinkenburg, & Wilson-Evered (2008) found that teams who were led by more transformational leaders rated themselves as being more innovative than teams who were led by leaders who were less transformational. Besides the main effects, some researchers have also explored potential moderating and mediating variables of the relationship between transformational leadership on creativity such as follower intrinsic motivation (Shin & Zhou, 2003) and educational specialization heterogeneity (Shin & Zhou, 2007).

Wang and Zhu (2011) suggested several possible mechanisms on why transformational leadership may enhance employee individual creativity: They underlined that transformational leaders with intellectual stimulation inspire followers to challenge the assumptions and come up with new and different approaches to their work; Transformational leaders with individual consideration create new learning opportunities for followers to grow, give followers discretion to act, and show appreciation and support of followers' individual initiatives and viewpoints. Additionally, they suggested that transformational leaders with inspirational motivation often emphasize the importance of subordinate contributions to the organization, which presumably motivates subordinates to develop and offer more ideas to facilitate organizational success. Besides, transformational leaders with idealized influence serve as a role model and build trust and respect among followers. In spite of these logical arguments, Wang & Zhu (2011) asserted that this relationship is not fully understood; and a much better understanding is critical to cultivating creativity for an organization.

In a more recent study, Qu, Janssen, & Shi (2015) examined follower relational identification with the leader as a mediator and follower perceptions of leader creativity expectations as a moderator in the relationship between transformational leadership and follower creativity. They found that follower relational identification with the leader mediates the transformational leadership–follower creativity relationship, and this mediating relationship is conditional on the moderator variable of follower perceptions of leader creativity expectations for the path from follower relational identification to follower creativity.

Accordingly, in this study, we responded to Wang and Zhou (2011)'s call by examining this relationship with a contextual moderator. Although it seems clear that leadership does make a difference with respect to creativity, it is also clear that we do not fully understand the conditions that make it possible for transformational leaders to positively influence their followers' creativity (West & Sacramento, 2012), which suggests that contextual factors are to be examined to broaden our understanding of this relationship. Organizational climate seems to be one of these conditions in military contexts.

Organizational Innovative Climate and Creativity

Climate perceptions arise from an individual's interpretation of the meaning inherent in organizational policies, practices, and procedures (Kozlowski & Farr, 1988). Quite naturally, the working atmosphere in an organization is expected to have important influences on the behaviors, attitudes, moods, and of course, the *creativity,* of the employees. Hence, organizations increasingly come to understand that to remain competitive, they need to create a proper climate, which can encourage their employees to be creative. Mumford and Gustafson (1988) argued that even when employees have the capacity to be creative, their willingness to do so depends on the organizational climate.

Previous research indicates that the organizational climate is an important contextual factor that promotes or inhibits individuals' creativity (Amabile, 1983; Zhou, 2003; Hunter, Bedell, & Mumford, 2007). For example, organizations that allow employees to spend time on thinking creatively tend to have more creativity at work (Hunter et. al., 2007). Zhou and Hoever (2014) concluded that even when organizations have creative employees, if the organizational context is unsupportive, the employees' creative potential will not be realized. Conversely, they underlined that when managers create an environment that supports

creativity, even employees who lack the natural inclination to be creative may become creative.

In terms of the moderating effect of organizational climate on the creativity and leadership relationship, the literature is not so conclusive. While some studies found that a positive organizational climate enhanced this relationship (Sabine, Streit, & Freiherr, 2005; Liao and Chuang, 2007), others have found the opposite (Fay, Luhrmann, & Kohl, 2004; Hui et al., 2007). Thus; Wang and Rode (2010) called for more research on the influence of contextual variables on leadership. Furthermore, as stated earlier, the organizational innovative climate is an unsearched variable in military contexts. In view of the apparent differences with civilian ones in terms of culture and climate, military organizations are arguably not providing an atmosphere that fosters creativity. So, it would be interesting to examine this construct with the eyes of the military personnel.

Having said that, responding to Wang and Rode (2010)'s call with above-mentioned arguments, we assert that organizational innovative climate can attenuate or enhance the effects of transformational leadership on creativity. Stated differently; we argue that individuals with leaders that exhibit transformational leadership behaviors will likely reciprocate with higher levels of creativity in contexts that support creativity.

Based on the arguments and the literature, the following hypotheses are proposed:

Hypothesis 1. Leaders' transformational leadership is positively related to followers' creativity.

Hypothesis 2. Organizational innovative climate moderates the relationship between creativity and transformational leadership such that the relationship is stronger when innovative climate is high.

Method

Participants

Data was collected from a total of 195 postgraduate students (all males) having a 2-year education at a high-level military academic institution in Turkey. In order to increase variance and representativeness of the sample, respondents represented a wide array of positions and ranks. 25 of the scales were eliminated due to extensive missing items. Participation in the study was voluntary and confidentiality of the responses were assured. The average age was 32.82 years (SD = 2.35) and the average organizational tenure was 10.81

years (SD = 2.20). Data were collected by self-report questionnaires. The participants were asked to report personal information (age and tenure), their creativity, their team leader's transformational leadership behaviors, and their perception regarding the organizational innovative climate. Turkish language versions of all measures were used after translation and back translation procedures were carried out as described by Brislin (1970).

Measures

Previously published and validated measures have been used in this study. All the items were rated on a scale that ranged from 1 (strongly disagree) to 5 (strongly agree). Creativity was measured with three items adapted from those developed by Zhou and George (2001). The respondents indicated the extent to which they engage in creativity in the work environment. Sample items include "I suggest many creative ideas that might improve working conditions in my organization" and "I often come up with creative solutions to problems at work." The scores were averaged to form a creativity index. Higher scores reflect more creativity.

Leaders' transformational leadership was measured using 14 items from the Multifactor Leadership Questionnaire (Bass & Avolio, 2000)[1], measuring the four subdimensions: individualized consideration, intellectual stimulation, inspirational motivation, and idealized influence. The respondents indicated how they perceive their leader's behaviors. Sample items include "provides me with assistance in exchange for my efforts" and,"acts in ways that builds my respect". The responses were summed to create a general Transformational Leadership perception score.

Organizational Innovative Climate was measured with 4 items adapted from Amabile et al. (1996). The respondents indicated the extent to which their organizational climate favors and supports creativity. Sample items include " We are encouraged to develop new ideas" and " "Creative work is valued and recognized". With regard to control variables, participants' age and tenure were controlled in the analyses.

1 The Multifactor Leadership Questionnaire (MLQ), Form 5X-Short (copyright 1995 by Bernard Bass and Bruce Avolio), was used with permission of Mind Garden, 1690 Woodside Road, Suite 202, Redwood City, CA 94061. All rights reserved.

Results

We conducted correlational analysis to test the Hypothesis 1. Results of the analysis were all in the expected direction. As expected, employee creativity was found to be significantly correlated with transformational leadership ($r = .40$, $p < .01$) and innovative climate ($r = .30$, $p < .05$). Hence, the Hypothesis 1 was supported. Table 1 summarizes the means, standard deviations, correlations, and reliabilities among the study variables. As can be seen, all the reliabilities are over the 0.70 standard cited by Nunnally (1978) as being acceptable.

Hypothesis 2, the moderation of innovative climate on the relationship between transformational leadership and creativity, was tested with moderated hierarchical multiple regressions, using Baron and Kenny's (1986) procedure. To test the hypothesis, creativity was first regressed on control variables (age and tenure; Step 1), then transformational leadership and innovative climate (Step 2), and finally the interaction of these two variables (transformational leadership and innovative climate; Step 3). Table 2 shows that after main effects of transformational leadership and innovative climate were controlled, the moderated interaction term accounted for an additional % 2 of the variance in creativity, which was significant ($\beta = -.154$, $p < .05$). Although that percentage seems trivial, it is yet within the typical range of % 1-3 found in non-experimental studies (Chaplin, 1991). To identify the form of interaction, the total sample was split into high and low groups using the mean of innovative climate (Aiken & West, 1991). As Figure 1 shows, the direction of the interaction supports the initial prediction, that is, employee creativity increased under both high level transformational leadership and organizational innovation climate. Thus, hypothesis 2 was also supported.

Table 1

Means, Standard Deviations, Correlations, and Cronbach's a for the Study Variables

Variables	Mean	SD	1	2	3	4	5
1. Age	32.82	2.35					
2. Tenure	10.81	2.20	.92**				
3. Transf. Leadership	3.85	.87	-.025	.027	**(.96)**		
4. Organizational Climate	3.57	.99	-.013	.008	.61**	**(.90)**	
5. Creativity	3.88	.64	-.115	.050	.40**	.30**	**(.72)**

Note: n = 170; Cronbach's alphas are listed in parentheses on the diagonals;

* p < .05. ** p < .01.

Table 2

Multiple Regression Tests of Moderation

	Creativity		
Variable	Step-1	Step-2	Step-3
Age	-.469	-.343	-.315
Tenure	.383	.258	.232
Transf. Leadership (TFL)	-	.323**	.280**
Organizational Climate (CLM)	-	.100	-.834
TFL X CLM	-	-	-.154*
F	2.968*	9.433**	8.499**
R^2	.035	.187	.207
ΔR^2	.035	.153	.020

Note. Standardized beta coefficients are reported. * p < .05. ** p < .01.

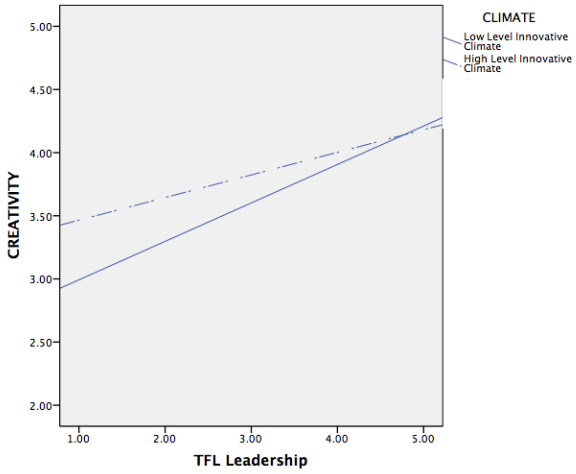

Figure 1. Organizational Innovative Climate as a moderator of the relationship between creativity and leadership.

Discussion

Although transformational leadership is expected to be related to subordinate creativity, the previous studies yield inconsistent results. The purpose of the present study was to contribute to addressing this important yet relatively unclear issue with one possible moderator that has been neglected in previous military research: organizational climate (i.e. innovative climate). We specifically examined how followers' individual perceptions of transformational leadership are related to their individual creativity under the boundary condition of organizational innovative climate.

The research on creativity is scarce within the military context. However, military organizations of today are facing highly complex and dynamic operations and challenges, hence the ability to constantly learn and adapt as well as to think from new perspectives is crucial. In that sense we believe that this study offers an interesting research perspective.

Employee creativity is crucial for organizations to succeed (Amabile, 1988; Oldham & Cummings, 1996). However, interestingly, military behavioral scientists, unlike their civilian counterparts, have not shown much interest in this construct (Kayaalp, 2016). In this study, we attempted to understand creativity in terms of its relationship with some contextual factors: namely leaders' transformational leadership and organizational climate. The results

suggested that transformational leadership was significantly associated with individual creativity and the strength of this relationship was contingent upon innovative climate. Stated differently, employee creativity was higher when transformational leadership perception and innovative climate was both high.

Although positive relationship between transformational leadership and employee creativity is not a novel finding, it does provide additional support for previous findings in the literature from a military perspective. As stated in the literature review, a transformational leader is expected to develop a climate where creativity is likely to emerge. For example; such leaders are expected to encourage and stimulate their subordinates to develop novel and useful ideas. They hearten their followers to defy assumptions and come up with new and different solutions to problems, i.e. creativity. They have confidence on their subordinates' abilities. They communicate an attractive vision of what can be accomplished. They attach importance to voice, which presumably encourages individuals to develop and offer more ideas, i.e. to be creative. It is obvious that the results confirm these expectations.

Although the relationship between transformational leadership and follower creativity is established, albeit inconclusive, we believed that it was important to take this analysis to the next level: discovery of the influence of contextual moderators. In other words, there was a need to find out how transformational leadership leads to greater creativity in subordinates. The moderation analysis indicates that subordinates are more creative when they have an inspiring leader and when they perceive that organization's norms favor and encourage creative efforts. The results suggest that individuals with leaders that exhibit transformational leadership behaviors reciprocate with higher levels of creativity in contexts that favors individual creativity.

As stated in the literature review, it is self-evident that creativity is a very important concept, contributing to the efficiency and effectiveness of the organization. The technological advances, globalization and competition make the creativity of employees a necessity for the organizations. Therefore, the military organizations like the civilian ones need to seek ways to foster and support creative behaviors of their employees in order to survive and compete, and more importantly to succeed in a combat. The results indicate that organizations desiring creativity from their employees should have leaders who demonstrate transformational leadership behaviors and create an organizational environment that stimulates individual creativity.

However, a typical military culture with characteristics like high hierarchy, conservatism, emphasis on status quo, formal management structures, and high formalization are among the critical factors having the potential to undermine creativity of individuals. We assert that the organizations and leaders overcoming or balancing these *climatic* impediments are more likely to have creative individuals. However, this should not mean that we ignore the internal dynamics unique to military, we strictly emphasize that there are important differences between civil and military organizations. For example, one crucial difference between the military and most civil organizations is that within the military, soldiers are dealing with dangerous equipment during both training and missions, where one mistake could jeopardize the lives of many. Hence, norms and regulations are essential in these environments, as well as the willingness of soldiers to conform to these. Indeed, many studies indicate that within organizations that operate in milieus where issues of risk and safety are salient, standardized procedures and regulations are necessary. Under normal circumstances, we accept that many problems can be solved or decisions can be made without engaging any creative thought with existing norms and regulations. Mumford and Gustafson (2007) have underlined that creative thought is called for by problems that are novel, complex, and ill-defined, in the sense that they can be construed and solved in multiple ways. As stated in the literature review section, the future operational environment will challenge Army leaders with complexity. Such an environment will definitely force army leaders to find creative solutions to solve multiple dilemmas in shorter periods. Thus, we do not present creativity as the only way for the military to be effective in the future, and we do not see norms and regulations as absolute hindrances for effectiveness.

The results also indicate that to foster creativity, concentrating only on transformational leadership development without taking into account the organizational climate may not generate the desired outcomes.

Our findings should be evaluated in the context of a few limitations, which can also serve as directions for future research. First, this study was conducted with cross-sectional data collection from the same source. That is; the results are based on the self-perceptions of the respondents, and these were not observed or validated by an outside source. Thus, there is potential for common method bias, and it is not possible to infer causality, as empirical support for causality may only be established with experimental and longitudinal studies. We addressed this limitation statistically using techniques recommended by Podsakoff et al.

(2012). The results indicated that common method bias did not constitute a significant threat to the validity.

Second, this study was conducted in a military academic context. Thus, replication studies across time, sample, setting, and variables are needed to generalize the results.

In conclusion, this study extends the prior work on creativity in several ways. First, this study made a contribution toward a better understanding of the relationship between transformational leadership and creativity in a military context, in which leadership plays a significant role. Second, this study examined an important moderator that has been neglected in previous research in military contexts: organizational innovative climate.

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