

COGNITIVE AND SOCIAL BENEFITS OF BILINGUALISM FOR MILITARY LEARNERS

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ABSTRACT

Bilingualism represents the capacity of a person to speak two languages fluently. It offers a myriad of cognitive and social benefits to those that are capable of such a performance, being particularly advantageous for individuals that serve in the military. The present paper explores the manner in which bilingualism can better certain cognitive processes and executive functions, at the same time fostering social skills like empathy and cross-cultural communication that are crucial for military operations. Those that are bilingual also enjoy better professional opportunities, by achieving greater mobility, higher earning potential, extended networks and greater job security. Through a review of relevant specialized literature, we aim to highlight the importance of promoting bilingualism specifically within military training programs to improve not only operational effectiveness but also interpersonal dynamics. Having bilingual staff represents a significant asset for any army, especially for those that are part of international coalitions, as effective communication can directly affect the success of the missions and operational efficiency. They are essential when it comes to the achievement of military objectives while minimizing and even eliminating misunderstandings and conflicts.

KEYWORDS: army, bilingual, benefit, language, military

1. Introduction

In an increasingly globalized world, military operations almost always require interaction in highly stressful situations with diverse populations and a good capacity to navigate through multifaceted cultural landscapes. In the scientific article entitled “Bilingual benefits in education and health”, Manfred Spitzer defines bilingualism “*as the everyday use of more than one language. Globally, more than half of the population is bilingual, but there are huge regional differences, with only one fifth of the population speaking two languages in the USA and Canada, whereas in some countries, bilingualism or even multilingualism being more or less the norm. The benefits of bilingualism in terms of communicative skills are obvious in the modern society and*

globalized economy” (Spitzer, 2016). This article focuses on the cognitive and social benefits of bilingualism, especially in the case of military learners, underscoring the value of incorporating language training into military education.

2. Cognitive Advantages of Bilingualism

2.1. Executive Functions

Numerous experts have affirmed that bilingualism has a beneficial effect on the executive functions, which refer “*to skills that you use to manage everyday tasks like making plans, solving problems and adapting to new situations. The three main skills are working memory, cognitive flexibility and inhibition control. These skills develop during your lifetime, often declining as you get*

older” (Cleveland Clinic, 2024). Military operations almost always involve environments that are complex, dynamic and where decision-making needs to be quick and efficient. It has been demonstrated that bilingual individuals usually obtain higher scores when evaluated for tasks requiring executive functions, particularly those required for managing conflict, making them well-suited for high-stress and rapidly changing military realities. *“The assumption in the adult literature is that the bilingual advantage in nonverbal executive functioning can be traced to the use of that system to resolve conflict from jointly-activated languages, making it more efficient across a range of tasks. Support for the claim of joint language activation comes from behavioral (38), eye-tracking (39), ERP (40), and fMRI studies (41). There are two implications of the view that this management of language conflict is the primary mechanism for the bilingual effects on cognition”* (Bialystok, 2015).

2.2. Memory

When it comes to memory, bilingual individuals often exhibit better working memory, which is the capacity to retain and manipulate information over short periods of time. *“One compelling context in which cognitive failures may have life or death consequences is during military operations. Lapses of attention during security screening or watch-standing, or failures of working memory in tasks with high workloads, such as operating modern military weapons or aircraft, for example, could lead to death and devastation on a grand scale”* (Zanenko et al, 2019).

Furthermore, bilingual military also have an advantage when working in an environment full of distractions and contradictory signals, a skill that proves to be useful when participating in training sessions, field exercises or when being on missions in theatres of operations: *“Other studies also show enhanced memory*

processing in bilinguals relative to monolinguals in categorisation tasks that require suppressing distracting information. This could certainly indicate that bilinguals are more efficient at multi-tasking and more able to focus on the task at hand, especially when the task requires ignoring irrelevant information (think trying to work in a noisy cafe)” (Athanasopoulos, 2023).

The improved memory advantage is particularly of the essence in military contexts, when people must remember and apply orders, protocols, and information of tactical importance precisely and quickly.

2.3. Cognitive Flexibility

Cognitive flexibility represents the ability to adapt to new, unexpected conditions. *“Cognitive flexibility is the ability to appropriately adjust one’s behavior according to a changing environment [...]. Cognitive flexibility enables an individual to work efficiently to disengage from a previous task, reconfigure a new response set, and implement this new response set to the task at hand”* (Dajani & Uddin, 2015). Bilingualism enhances this trait, enabling military personnel to concentrate on a certain activity, to shift from one task to another, to multitask. It is an element that plays a key role in productivity.

Cognitive flexibility also proves useful when one needs to adapt their thinking and behavior so as to successfully confront continuously changing circumstances and challenges, different cultural environments and unpredictable situations as it is almost always the case during deployments.

2.4. Delaying the Onset of Cognitive Disorders

Studies on patients suffering from Alzheimer’s and dementia have discovered that those that speak more than one language at a proficient level can delay symptoms of the afore mentioned diseases by approximately four years in comparison to those that are monolingual:

“A study of 253 Alzheimer’s patients found that people who speak two languages proficiently could forestall dementia symptoms by about four years compared with monolinguals. The results, published online February 11 in the journal Dementia & Geriatric Cognitive Disorders, suggest that habitually speaking and thinking in two languages builds up a “cognitive reserve” that acts as a buffer to stem the decline associated with Alzheimer’s disease” (Fiore, 2020). Mario Mendez, MD, PhD, Director of Neurobehavior at the VA Greater Los Angeles who is also a Professor of Neurology and Psychiatry at David Geffen School of Medicine, UCLA, noticed that even though bilingualism is not a cure for Alzheimer’s, it helps by significantly delaying its onset, those affected by the disease being able to function for longer periods of time. The bilingual individuals must constantly make choices between the languages they speak, actively suppressing one of these. There occurs a form of code-switching that takes place in the frontal areas of the brain, areas that are known to also manage executive functions, some examples of these being the handling emotions, working memory, or self-control. When a person constantly exercises these functions, their resistance against the decline caused by Alzheimer’s is increased due to the network of neural connections that is formed. Mendez also specified the fact that the majority of the bilingual patients returned to the exclusive use of the native language when their diseased reached more advanced stages (Fiore, 2020).

3. Social Advantages

3.1. Cross-Cultural Communication

The military leaders of the future need to communicate effectively with the autochthonous populations from the countries where they will be deployed and a good level of knowledge of the local language can facilitate the success of the

military mission. The military personnel who are bilingual can help facilitate effective interactions with the individuals that speak a language that is different from theirs, they can help with the process of winning their hearts and minds and transform them into supporters. *“The shooting side of this business is only twenty-five percent of the trouble. The other seventy-five percent is getting the people of this country behind us. The answer lies not in pouring more troops into the jungle but in the hearts and minds of the people”* (Kilcullen, 2010). This capability can improve intelligence gathering, negotiation, and collaboration with local forces and communities.

3.2. Empathy and Cultural Sensitivity

Learning a second language also helps the individual to gain insight into another culture, leading to the development of greater empathy and cultural sensitivity, qualities that are essential for the military who must navigate multifaceted social dynamics and build relationships with people from the most diverse backgrounds. The foreign language that a person learns leads to a deeper knowledge of one’s own culture as well as of a new culture and reduces the risk of conflicts through the elimination of misunderstandings, promoting more harmonious and effective interactions. Focusing on the tight connection between language and culture, Valera Nagore states that *“Studying another language also offers the chance to explore the culture and idiosyncrasies of the country or culture that speaks it. Not only does it provide the opportunity to learn more about the language itself, but it gives insight into the mentality and worldview of the people who speak that language. In this way, language becomes an integral part of a culture”* (Nagore, 2023).

3.3. Enhanced Team Dynamics

A vital social skill that any military has to master, regardless of the rank or the

branch he belongs to, is to effectively work in a team and to be able to communicate efficiently with the other team members. In his thesis entitled “Cohesion in Multinational Military Units”, Bojan Langerholc analyzes the challenges faced by the military leaders who want to have cohesive multinational teams and when it comes to the linguistic aspect, he presents several pieces of advice that he thinks should be followed in order to achieve this desideratum: *“Increase effective communication. Increase the ability to understand non-verbal communication and its meaning in other cultures. Improve language skills. Even a few phrases contribute enormously to establishing genuine contact and showing respect to other nations. Regardless of language barriers, everyone should be comfortable expressing ideas and communicating honestly and openly. Be prepared for a lower proficiency of English. Avoid using abbreviations or acronyms that others do not understand. Provide clear orders, provide translators, and allot time for additional explanations if needed”* (Langerholc, 2010). Thus, it is the bilingual service members or civilian personnel who can serve as intermediaries in multicultural teams, helping with communication and fostering cohesion. Their ability to understand and transmit messages in multiple languages prevents miscommunications and contributes to the creation of an inclusive and cooperative environment. The author mentioned above also underlines the idea that the qualities fostered by bilingualism will enable those in command of units with people coming from different countries to have tightly knit teams: *“Leaders of multinational units may cultivate unit cohesion if they exhibit interpersonal and emotional intelligence, cultural intelligence, and adaptable leadership style”* (Langerholc, 2010).

4. Applications

In order to illustrate some of the practical benefits of bilingualism in military contexts, we would like to present recent situations when bilingual personnel played a decisive role. One such example is that of the Air Force medical student, Lt. Kristen Bishop, who was asked to help the patients evacuated from Afghanistan in 2021 and who arrived at Walter Reed National Military Medical Center. There she worked as a translator as there were no in-person translators of Persian Farsi and Dari. Speaking about the profound experience with the Afghan evacuees, Bishop affirmed that *“It feels like the culmination of my efforts and everything thus far in my life, because I was able to do what I love – help people and specifically use the skills that I have – to serve,”* says Bishop. *“... It is a very direct application of what I have to offer and I am truly grateful I was given that opportunity”* (Neligh, 2022).

The US Army recognizes the valuable work of the military linguists and they set up the Defense Language Institute Foreign Language Center, *“one of the world’s foremost language schools”* (U.S. Department of Defense, 2018) where 17 foreign languages are taught at its headquarters in Monterey, California, and another 65 languages can be taught by means of its Washington, D.C., branch. DLIFLC also has language training detachments at sites in the U.S. and in other parts of the world (U.S. Department of Defense, 2018).

Furthermore, linguists took part in the electronic warfare against the Islamic State of Iraq and Syria by monitoring their communications and contributed to its defeat: *“The EC-130H’s flight deck personnel responsible for the aircraft’s flight and navigation are the same as found in most C-130 variants. In the back of the aircraft, however, are a number of linguists actively monitoring ISIS communications, while electronic warfare officers, or EWO, simultaneously employ the Compass Call’s*

electronic attack weapons system” (Hehnly, 2017).

Another example of the necessity for bilingual individuals within the armed forces is the creation of the Female Engagement Teams (FETs), a program of the United States Marines Corps initiated in 2009 to help with the war in Afghanistan. The teams comprised female volunteers whose mission was to establish relationships with Afghan women in order to collect information from them without breaking cultural traditions and thus increasing the Marine forces’ capability of reaching out to the Afghan population. *“Female Engagement Teams (FETs) is a program that the United States Marines Corps initiated in Afghanistan in 2009. The teams were made up of female volunteer members of appropriate rank, experience, and maturity to establish trust-based and lasting relationships with the Afghan women they encountered on patrols. During the war, Marine FETs deployed in small groups with male infantry units. Their primary mission was to collect information from Afghan families and communicate with women without breaking cultural traditions. Having such a team at its disposal gave Marine forces an added tool in reaching out to the Afghan population ahead of scheduled troop reduction in 2014”* (National Museum of the Marine Corps, 2009).

All these examples demonstrate that bilingual personnel should continue to be included in intelligence operations, humanitarian assistance or peacekeeping missions, as their skills play an important role for the success of almost all the missions and for operational efficiency.

5. Conclusion

To sum up, we can affirm that bilingualism provides both cognitive as well as social advantages that are significant and highly beneficial for those

that will become military leaders. Those that make the effort of achieving a high level of English or of another foreign language will enjoy not only more diverse professional opportunities, but also enhanced memory and better cognitive flexibility, higher levels of empathy, better cross-cultural communication, and improved teamwork dynamics. The investment of the Ministry of Defence into the study of foreign languages proves a valuable one as it enhances the overall performance and adaptability of those that serve in the Armed Forces, it represents an investment into our future.

We have entered the era of artificial intelligence and globalization and the idea that one is too old or without means to learn a new language is outdated. Progress in technology has made language learning accessible to everyone. There exist instant translation tools, artificial intelligence-driven software programs, immersive virtual environments, as well as personalized experiences that can help those willing to learn another language or to improve their linguistic level of proficiency. Leaving aside aspects like convenience or the higher degree of interconnectedness, acquiring another language is no longer a mere hobby, it is a necessity. Artificial intelligence has begun to transform all industries and it is doing this at lightning speed. High level language skills help one to remain competitive, to advance collaboration across cultures, and to understand various points of view. It is the bilingual or multilingual persons who will reconcile the human nuances with the precision of the machine. Whether we use language learning for professional advancement, for personal development or just to be more connected to those around us, learning a new language represents a lifelong journey and we should take advantage of the tools available to us today.

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