

Introduction

In militaries, communications play an important role in determining the success or failure in an army. In ancient times, the use of visual and audio signals in military contexts were exemplified by the bell towers in strategic segments of the Great Wall of China (Turnbull, 2007)—however, these fundamental tools were often limited by environment factors such as visibility, as well as constraints in the message that could be sent. With the evolution of warfare, strategists began to utilise different means of communications between troops, such as using encrypted messages or specific units trained for the purpose of conveying messages. While all of these techniques are no longer used in today’s world, much of it has influenced the way military communications have evolved. For this essay, the military communications, all related technologies and lexicon discussed will mainly be those that are used by the North Atlantic Treaty Organisation (NATO) Countries and its allies in an operational context, due to the availability of information as well as relevance to Singapore’s military linguistic context.

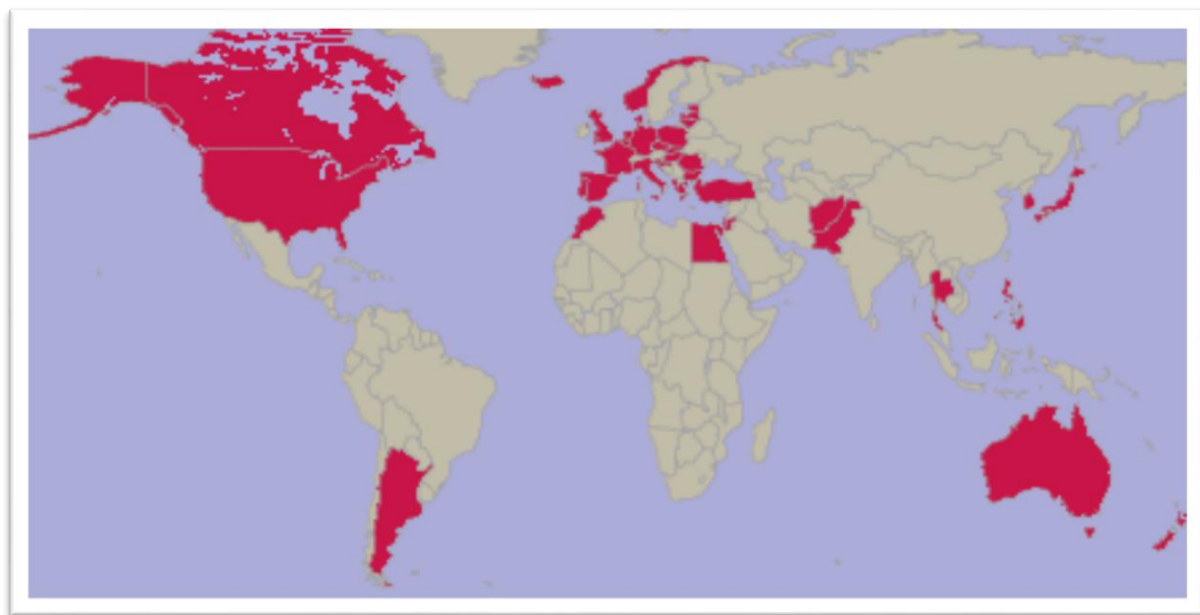


Figure 1. NATO map showing countries that adhere to NATO Communications Procedures. These countries are marked out in red. Image taken from <http://www.foreignpolicyblogs.com>

As seen from the diagram above, it can be seen that NATO defined standards for military communications is one of the most widely accepted and used across the world, although the actual figures are confidential for security purposes. The reasons for this standardisation of protocol and lexicon across so many different countries will be further explained in the next segment.

Literature review

The literature reviewed for this discussion mainly covers papers from NATO and several others discussing the limitations of current technologies. In the first two papers, NATO establishes the common set of ground rules needed by its member nations and allies to adhere by in order to increase interoperability during training and during exercises despite using different equipment, with the origin of this to reduce problems that may arise during a coalition or during joint exercises. NATO further specifies the need for standardization in a research paper by Pigeon et al. (2005) which discusses the current need for a common lexicon and protocols for command and control purposes, as well as the study of possible speech-to-text technology that could be used across different platforms, i.e the use of voice commands in fighter jets. However, the study also lists some of the failure faced during these trials, many of which revolve around the variability of speech across different speakers in different scenarios—therefore making such speech related technologies highly problematic and risky to use at this current day and age. Based on these results, the decision was made to first focus on establishing a strict adherence to common protocols and voice procedures across all participating nations, followed by greater research to improve technologies in this field for future use in warfare.

Beyond NATO agreements and studies, external agencies have also discussed about the limitations that exist in military communications equipment. Given that warfighting often involve mobile elements, two types of communications networks have been developed; the Mobile Ad-Hoc Network (MANET) and the Disruption Tolerant Network (DTN). In Kuldeep et al.'s paper, it is mentioned that the inherent problems of MANET includes security risks and architecture problems, such as the existence of attackers within or from outside of the network that could threaten to disrupt the system, as well as frequent link breakage due to the high degree of mobility of connected units. The same limitations were discussed by Burbank et al. (2006) who proposed solutions by upgrading current network architecture. Other improvements to the current state of military communication technologies suggested by Tozer et al. (2001) discuss the possibility of High Altitude Platforms used to combat the capacity limitation problems of both land-based and satellite platforms.

Analysis

To begin analysing the key differences between Military Communications in both conventional speech and text, we would be using David Crystal's seven features to establish the baseline differences.

Speech like

Text like

time bound	space bound
Spontaneous*	contrived
face-to-face*	visually decontextualized*
loosely structured*	elaborately structured
socially interactive*	factually communicative
immediately revisable	repeatedly revisable
prosodically rich*	graphically rich*

Figure 2. David Crystal's seven features—the features marked with an asterisk * denote differences with military communications.

Spontaneity

Normal speech is highly spontaneous-- there is no pause between the production and reception of the audio signals or any clear boundaries between the speech segments, with the contents of the speech unlikely to be extremely technical. However, within military communications, there are several technological limitations that cause most of its content to follow a highly rigid system. Firstly, the use of two way radios or walkie-talkies only allow one person to speak at any one time due to limited frequency channels available. This causes a sizeable lag time between the production of a speech segment and its reception by the intended recipient, which may be further hampered following atmospheric conditions. Compared to speech, spoken military communications have a clearly defined boundary, similar to how a full-stop works in text, when spoken over communicative devices. For example, one would use “over” to denote that one is done talking and is awaiting a reply from the intended recipient; while “out” would usually mean that one is done talking and does not expect any further replies.

Structure

On a similar note, given the vast amounts of protocol that one has to abide by before speaking, military communications is unlike conventional speech, whereby there are little or no rules in governing how a message is conveyed. While profanities are somewhat common in both mediums (though not encouraged in official military communications), the use of specialised vocabulary and formal terms is very common in the military and most of the speech or text is kept as short as possible. One example is illustrated below:

Normal Speech: *Duty Pier Officer, can you please come over to my ship, ninety eight as soon as possible?*

Military Comms: *DPO, request your presence onboard niner eight.*

The key differences lie in the fact that military communications equipment have severe limitations in terms of mobility and capacity, therefore effort is needed to reduce the size of the data package as much as possible, be it through speech or through text. This is designed to allow maximum retention and clarity when received by the other party to prevent any confusion or any hogging of the communication channels.

Socially interactive

As much of the of military communications is to convey an important message or an instruction, both spoken and written military communications behave more similarly to conventional texts, in which more facts are communicated in a manner that can be easily understood by the reader. Since conventional speech is more often used for the building or maintaining of social relationships, the use of prosody and non verbal cues and gestures is not uncommon. This varies greatly with that of spoken military communications which emphasizes on efficiency and speed to achieve a particular set of goals.

Prosody/ Graphics

While it is highly impossible for military personnel to not display any emotion in the face of combat or stress, as proven in Pigeon et al's (2007) study; it is a requirement for users of spoken military communications to adhere to strict guidelines to remain as calm and clear as possible in any scenario so as to get the message across and to prevent confusion. In this case, the volume or the speech segment must be maintained at a level that do not cause irritation to other users; the rate at which words are spoken, as well as the length of the speech segment must be carefully controlled. Similarly, for written military communications, there is an emphasis on the strict usage of block letters to prevent any ambiguity in the message caused by changes in upper or lowercase alphabets. There should also not be changes in colour or font, unlike in conventional texts whereby the writer has full autonomy over what he writes, depending on context. For both written and spoken military communications, it is important to recognise that these restrictions are put in place mainly due to technological limitations of the equipment on the ground as well as the confusion on the battlefield.

Face to face/ Visually decontextualised

As compared to conventional speech, spoken military communications vary in the aspect that one does not get to see extra-linguistic cues such as gestures or facial cues when conversing, mainly due to the physical distance between both speakers. Comparatively, although feedback can be received

from the other party, it often is not immediate due to lag times in the frequency channel or other environmental factors. With regards to conventional text in which extra-linguistic cues can be expressed through a change in font size and colour, military communications often lack this feature. This can be mainly attributed to the fact that the encryption software does not recognise any variations in font, type size or colour when the data is fed through it and scrambled (to make it unreadable for the enemy). Similarly on the recipient's end, the decryption device lacks the ability to produce any variations in text style.

In summary, the differences between military communications and both conventional speech and text mainly stem from the key reasons of equipment limitations, the need for speed and clarity in confusing scenarios as well as standardization across different nations. With all these factors in mind, the key trademarks of military communications that set it apart include its brevity, the high levels of protocol and rigidity required, as well as large amounts of acronyms and jargon. This also explains why most armies have a dedicated unit to maintain the communications equipment and the network architecture used, as well as proper training schools dedicated to enforcing the proper usage of military communications as a language medium recognised by fellow practitioners across the world.

Military communications and its impact on language

Military communications have created a large impact on linguistics, not only due to the addition of various lexical items termed under the umbrella of “Military lingo/slang”, but also due to the fact that it is a form of contact language that reinvents itself when two forces come into contact with one another, or with a local culture (Ioana, 2008). Touching firstly on the idea of adding new lexical items, it is important to recognise that any war, traditionally, will lead to a great degree of innovation and inventions by scientists (Chaloupský, 2005). These inventions would therefore lead to newer additions in the respective semantic fields, for example, work in the field of aircraft detection led to a Electro-magnetic wave based system known as RADAR; and similar works in the field of submarine detection led to a soundwave based system known as SONAR. Beyond these innovations alone, the alliances that were formed during most major wars put soldiers from different countries together, resulting in a need to create commonly understood terms for a shared understanding of strategic and tactical terminologies, with examples such as camouflage, civvy (short for civilian clothing) etc (McCrum et al., 1986) created by the coalition of both American and British soldiers during the first World War.

On a similar but less formal note, it was also not uncommon for military slangs to be created when soldiers came into contact with different cultures and coined terms that could be understood by them and the native speakers.

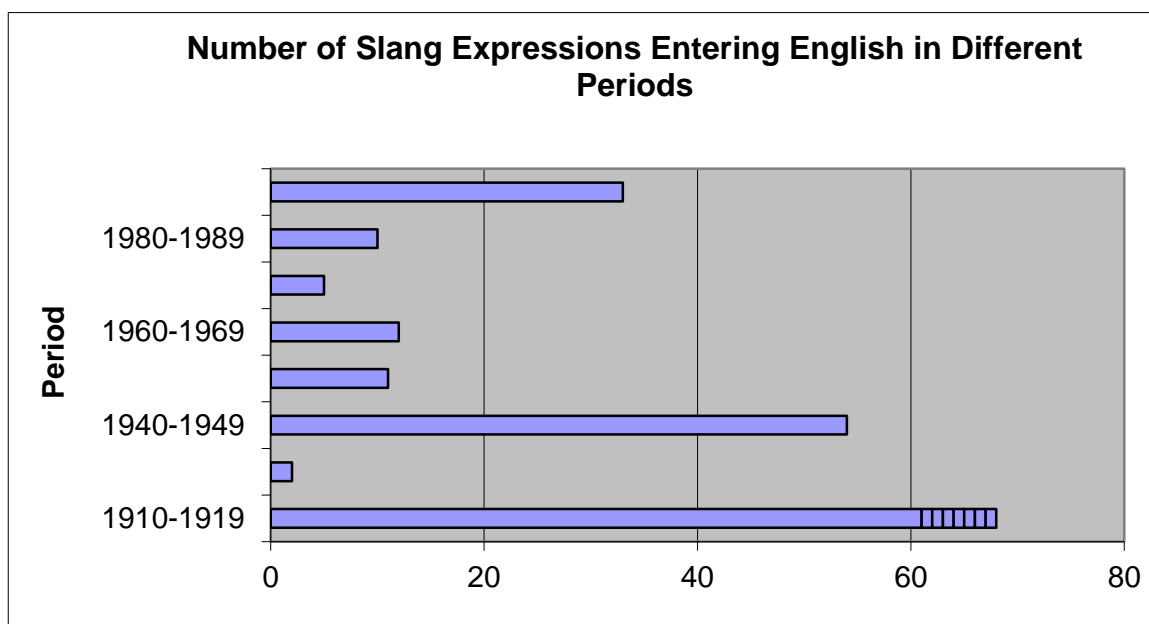


Figure 3. A table showing the amount of slang expressions. Taken from Chaloupský, 2005

As seen from the table above, there is a significant increase in military slangs during the time period of the first World War, the Second World War as well as the Gulf War, all of which can be attributed to the linguistic contact that was experienced not only within the coalition troops, but also due to linguistic environment of the region they were fighting in. Taking the word “Bleu” as an example, it was first used by the French as a culinary term for a raw steak, but it began to take hold as a term coined to describe a recruit or someone “raw” on the battlefield (No battle experience)—a clear example of how a region’s language can influence the type of military slang used (Ioana, 2008).

Military communications and its sociolinguistic impact

As previously mentioned, military communication, as a linguistic medium, has contributed largely to the English language by adding a large number of semantic and colloquial terms into its English lexicon. However, it is also important to note that military communications and all its related creations play an equally large role in the sociolinguistics domain by forging a united identity among those who have made use of it either in combat or in training. This can be seen by Amanda Laugesen’s (2002) cataloguing of Australian military slangs in the First World War, in which the choice to use certain obscenities, engage in dark humour and even discriminatory language against other nationalities was justified to create an unified identity among the Australians fighting on the

frontline; thereafter which allowed them to fight better and cope better with the stresses brought on by the war. Looking at Singapore which has a large conscript force, most males above the age of 18 are able to find common ground amid their National Service (NS) experience, and have no problem accepting the usage of “military lingo” in everyday life, however dissatisfied they can be with the two years they have spent in the conscript force. This therefore shows the potential “military lingo” has as a bonding tool and as an identity marker across Singaporean men from all walks of life (Quek, 2014).

Conclusion

In conclusion, while military communication was created as a language medium intended to be vastly different from normal speech and text in order to adapt to the different needs of the battlefield, its jargon and vocabulary have largely influenced normal speech in everyday life. Not only is military slang used for convenience, its status has now evolved to become a shared identity to all military personnel, past and present.

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