Military Operations in Megacities

A Linguistic Perspective

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The challenge of conducting future military operations within megacities (cities with populations over ten million) lies in understanding the dynamic and multidimensional complexities of these urban areas. Military operations in megacities, whether combat-oriented or otherwise, will be similar to those in other urban environments but will be complicated by factors unique to the megacity environment.[1] These factors include geographic sprawl, population volume and density, sociocultural and socioeconomic diversity, governance challenges, varying qualities of infrastructure, and regional and global (inter)connectedness.

The analytical framework proposed by the chief of staff of the Army's Strategic Studies Group (SSG) provides a solid foundation for studying the multiple dimensions of megacities from a military perspective.[2] Accordingly, megacities are complex and dynamic environments that require a holistic view of their interrelated parts. In order to encourage "new thinking" and "focus efforts," the SSG identifies five central components (context, scale, density, connectedness, and flow) that help view megacities as loosely, moderately, or highly integrated systems.

While this approach rightly encourages a holistic approach to the analysis of megacities, one element is notably absent from the suggested framework: language. Although this aspect of the human terrain might be implied in the component of context, the linguistic diversity of megacities will have implications for multiple components in this framework including context, connectedness, scale, and flow. This essay will discuss the dynamic linguistic characteristics of megacities and how an appreciation of this linguistic landscape can help visualize future military operations and apply the suggested framework.

Multilingual Characteristics of Megacities

First and foremost, megacities are largely multilingual. While this can be said of large cities in general, the scale of multilingualism in megacities magnifies its effects. For instance, in New York City (NYC)—a metropolitan megacity of over eighteen million—nine foreign languages are spoken by communities of one hundred thousand or larger.[3] Language also plays a role in determining one's identity and the larger language community in which one decides to live. For example, the majority of Russian speakers in NYC tend to live in south Brooklyn and Staten Island, while Chinese speakers tend to cluster in Manhattan and Sunset Park.[4] In megacities, language, culture, and regional context go hand in hand and often reach beyond ethnic identities.[5]

In order to fully understand the context of a megacity, we must understand the role of the languages used in its communities. How do language communities interact in megacities? What tensions are caused by multiple language communities in urban space? What role does language play in the power structures (government or otherwise) of megacities? What challenges are caused by multilingualism in gathering and disseminating information, providing social assistance, or responding to disasters?

Panoramic view of Mumbai slums, 9 February 2006. (Photo by Joel Newel)

Although this essay can't fully answer all of these questions, it will demonstrate why the linguistic landscape of megacities is an important consideration for decision makers in the military community.

Beyond Language Policy

Implementing an official language policy allows a nation to regulate which language or languages it uses to interact with its constituents. While these policies might provide us with decent insight into the linguistic environment within a country, it is often not enough to fully understand the multilingualism unique to a megacity.

The official languages of India, for example, are Hindi (first) and English (subsidiary).[6] In Mumbai, however, a coastal megacity with a metropolitan population of over twenty-one million spread across 230 sq. miles, Marathi serves as a third official language.[7] For many in Mumbai, Marathi, the indigenous language of the Maharashtra state, is the language spoken at home, while English and Hindi are often taught only as second languages and may or may not be used in official capacities.[8] Moreover, as more and more Indians migrate into Mumbai, they bring their regional languages with them, making Mumbai a microcosm of Indian multilingualism.

Therefore, in India, multilingualism must be embraced not only on an abstract level but also on an administrative one. Figure 1 provides a graphic representation of India's diverse language groups. Responding to the challenge, India's constitution administratively divides India into ethnolinguistic states and gives each state the freedom to add their own regionally significant language to the list of official languages, thereby institutionalizing regional languages into the Indian national identity.[9]

Consideration of Language for Predeployment Preparation

Whether military operations in megacities focus on intelligence gathering, disaster response, or combat, interaction with locals within various regional language communities will be necessary to build the relationships necessary for mission success. Understanding the regional languages within a megacity will have practical implications for creating appropriate predeployment language and culture familiarization training, identifying reach-back capabilities, and building effective military and host-nation interpreter cadre.

(Photo by Hitesh Ashar via Wikimedia Commons)

A typical, crowded street in Mumbai, 31 January 2006. Mumbai is the capital city of the Indian state of Maharashtra and is the most populous city in India, having an estimated population of 18.4 million. Though the official language of Mumbai is Marathi, sixteen major languages are used throughout the city together with multiple dialects and pidgin derivatives (mixtures of languages).

Language and Power Structures

Language also plays a role in the power structures that operate and hold influence within and across language communities in megacities. Analyzing how those power structures (e.g., government, educational, religious, tribal, or social organizations) operate and interact within megacity communities can shed light on the operational challenges the Army might face in those environments.

For example, in Lagos, Nigeria, another coastal megacity where English is the official language, many Lagosians speak Yoruba, an indigenous language with

strong historical and cultural ties to the region.[10] While English is used in official capacities by governmental and educational organizations, not speaking Yoruba is looked down upon by many.[11] Religious organizations in Lagos also promote the use of indigenous languages with some influence from the primary foreign languages affiliated with each religion (e.g., Arabic in Islamic groups and English in Christian groups).[12]

In many megacities, the contact among multiple languages within the urban space causes unique challenges for power structures. In Lagos and Mumbai, megacities in countries with what might be considered developing economies, much of the growth of megacities is due to migration from within the same country. Because the languages that come in contact within these megacities are similar to one another (often dialects of one or more regional languages), much cross-learning of these languages takes place.[13] In NYC, however, a highly integrated megacity from a country with a well-developed economy, a significantly larger percentage of growth occurs through immigration from foreign countries.[14] This has led to a more diverse multilingualism. As a result, power structures have to work harder to ensure cooperation among and across linguistic groups. Social organizations such as the Shorefront Community Center in Brighton Beach, a large Russian-speaking community in south Brooklyn, or the Chinese Community Center in Manhattan provide access to language-specific services and assistance to those with limited English proficiency.[15]

Additionally, those organizations often serve as vital links between language communities and both local and federal government organizations. FEMA's Recovery Center for South Brooklyn after Hurricane Sandy was located in the Shorefront Community Center and relied on the center's expertise to coordinate their disaster response with the Russian-speaking community.[16]

Another example of partnership between government and public organizations is seen in the New York City Police Department (NYPD), which recently formally recognized the Russian-American Officers Association (RAOA) as a fraternal order within the Department.[17] The NYPD, who has recognized thirty-one such fraternal organizations, relies on the RAOA to reach out to the Russian-speaking community and "promote cooperation with law enforcement."[18]
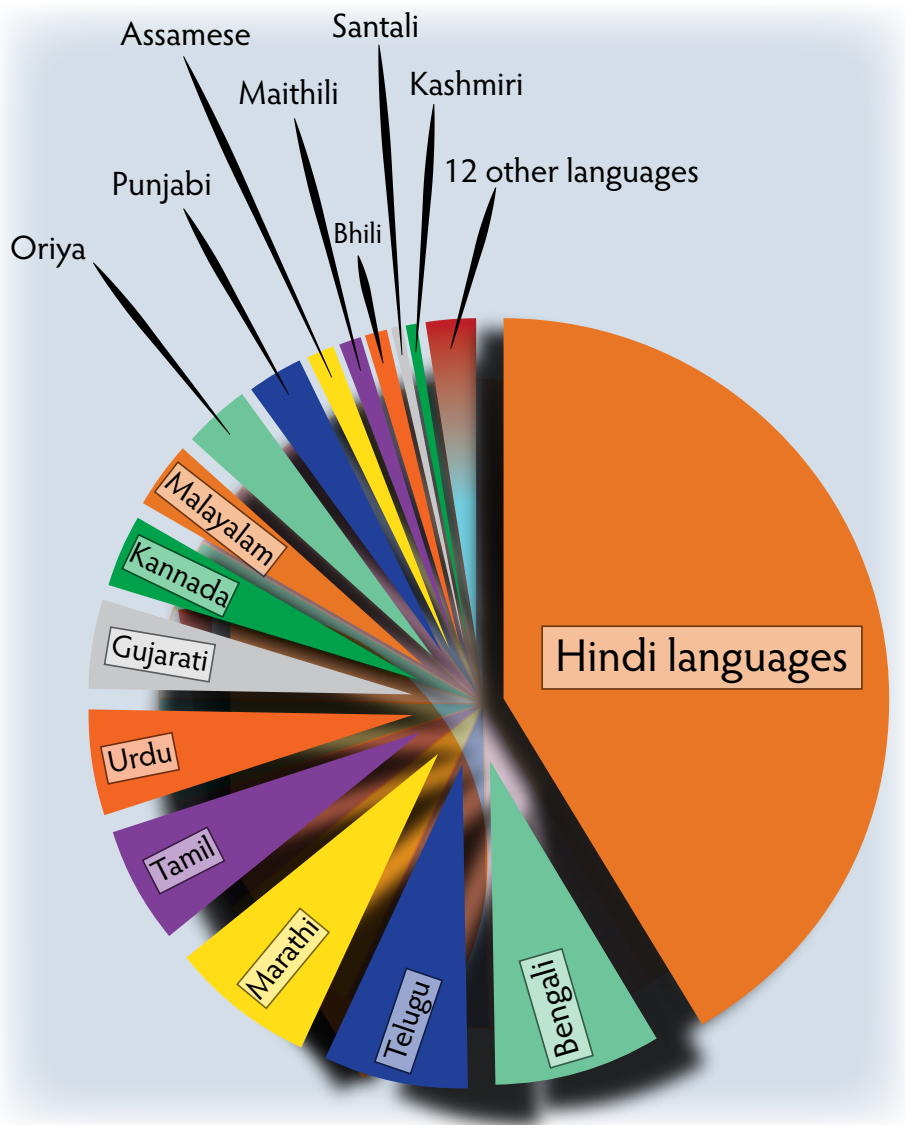
(Data from the Indian National Census (2001) via Mapsofindia.com)

Figure 1. Language Groups in India

New York's Twitter Languages
8.5 million tweets Jan 2010-Feb 2013

English: 8,071,571
Spanish: 228,534
Portuguese: 47,646
Japanese: 28,330
Russian: 21,324
Korean: 20,865
French: 19,034
Arabic: 17,072
Italian: 10,278
Turkish: 8,698

(Map illustration by James Cheshire)

Figure 2. Ten Most Common Languages in New York City Mapped Using Twitter

Understanding how power structures operate within megacities can provide vital information to military decision makers. While it is important to understand the official administrative areas of a megacity (the five boroughs of NYC, the sixteen local government areas of Lagos, or the twenty-three municipal wards of Mumbai), it is just as important to identify where the language communities are located within or across these areas. This will assist in building effective partnerships with relevant power structures (both governmental and otherwise) at various levels of megacity society.[19]

Language, Connectedness, and Information Flow

How energy and materials flow through megacities is an important part of understanding a megacity's metabolism. In addition to these physical commodities, the flow of information can shed light on how connected and integrated a megacity might be. How well does information flow between power structures and their constituencies? How is information shared within and among communities? What is the role of social and mass media? How accessible are communication technologies (e.g., cell phones, computers, Internet)?

At the heart of these questions lie the communication and language practices within a megacity. The multilingual information flow of a megacity can be a difficult data point to analyze, especially remotely. While statistics on mobile telecommunication use and the increase of broadband Internet coverage can be used to discuss general information flow, these data points do not provide much insight into the multilingual nature of flows across

these networks. Language use on television, radio, or news media, as well as the proliferation and use of social media in targeted megacities might prove more insightful.

To illustrate, in Mumbai, print media is published in Hindi, Marathi, English, and other local languages. Readers of news sources in Hindi and other local languages outnumber those of English-language media.[20] Alternatively, in Lagos, print news is largely published in English.[21] Radio and television stations in both cities also broadcast in multiple languages. Interestingly, in Lagos, while print media feature a strong focus on English, radio stations seem to vary their broadcast language with a stronger focus on regional languages.[22]

Additionally, in recent years, Twitter, the popular microblogging social network, has become a powerful sociolinguistic tool for analyzing urban language dynamics and flow. Tweets can be posted to the Twitter network in almost any language and geotagged with a user's geographic location. To date, Twitter language studies have ranged from mapping world languages to identifying dominant languages in urban environments.[23]

According to the market research firm, Semiocast, four of the five most active cities on Twitter are megacities: Jakarta, Tokyo, Sao Paulo, and New York.[24] While this could be due to the large population of the cities, these data might also provide some insight into the connectedness of the megacity (both locally and globally). As neither Mumbai nor Lagos made Semiocast's list of the top twenty, it would be interesting to see the correlation between Twitter activity and Internet or cell phone access in these cities. Furthermore, Twitter's geolocation feature coupled with machine recognition of language can also provide insight into the multilingual communication environment in megacities.[25] According to a study by the Centre for Advanced Spatial Analysis, NYC users tweeted in thirty-six different languages over a three-year period.[26] Using geotags embedded in tweets, researchers overlaid the tweets (the ten most common are color-coded by language) on a map of the city (see figure 2).[27] These data not only show the linguistic geography of NYC but also provide insight into the language density of communication hotspots (e.g., the theater district of Manhattan).

Strategic Considerations of Language Mapping

A clear understanding of the multilingual information flows within a megacity will help military decision makers better understand how language communities prefer to receive and share information. These data will provide insight into how to most effectively communicate with friendly forces or interrupt and manipulate the communication of enemy forces. Intelligence gatherers and analysts can use these data to focus and assess their initiatives. Infrastructure and logistics operators can use these data to better understand other flow data such as energy and supply flows.

Conclusion

The complex and dynamic environment of megacities is further complicated by the equally complex linguistic landscape therein. As part of the cultural and regional context of megacities, language affects multiple components of a holistic approach to studying megacities. In contrast to the multilingual features of other large cities, the scale of multilingualism and its effects in megacities demands particular attention. While the linguistic landscape of each megacity is unique, the overarching processes described in this article can serve as a launch pad for customized study into individual megacities.

From counterinsurgency and intelligence gathering to infrastructure and disaster response, military operations will be affected by the unique multilingual operating environment of megacities. Whether building effective relationships with strategic forces and power structures, mitigating ethnolinguistic tensions among megacity communities, or using existing communication practices to our advantage, the Army will benefit from a deeper understanding of the linguistic landscape of megacities.

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Notes

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