

Research on the Relationship Between Language, Natural Environment and Mode of Production

—Taking Thai as an Example

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Abstract: Language acquisition is a challenging endeavor that is influenced by environmental, historical, and industrial factors. This research is done to investigate the interconnection between these components of language development. Thailand offers a suitable opportunity to discover the role these factors play. This paper combined the research of Caleb Everett, Pinkerton J, and Moran S, applying those theories to a more local context in Thailand. By interviewing professional Thai language practitioners, people can get a more reliable and realistic sense of the internationalization of the Thai language. The globalization trend has an effect on the absorption of English-originated words. Furthermore, because the terrain and the plantation patterns in Thailand are unique, language as a communication tool is shaped by them. Moreover, the shape of the nose has the potential to affect the vocalization of language. This leads to the degree of use of nasal sounds in their ethnically used language.

Keywords: the relativity theory of language globalization, language diffusion, language development, Thai

1. Introduction

Language has never consistently developed at an increasing rate like today with globalization, modernization, and migration. All these factors make the language people speak today more diverse. However, despite the fact that development of language sometimes seems to be independent of other social elements, it is actually a complex process that integrates ethnicity and social interaction, which is a highly sophisticated process. However, not much research has been done on Thailand. Thus, this research is intended to investigate the relations between environmental, historical, and industrial factors and the development of language. This could encourage further research that tightly focuses on the Thai language.

2. Analysis of the Relationship Between Thai Language, Natural Environment, and Production Mode

Research on the influence of language on cognition and thinking dates back to the 1930s with the “Relativity of Language” theory, which states that language is not only a basic expression of thought

but also an important part of our cognition and even our worldview. Thailand is a country that has had close commercial and population exchanges since ancient times. Thailand, on the other hand, has always maintained an unusually high degree of cultural independence, in contrast to other nations in the region, such as Japan and Korea, which have been greatly influenced by China. However, due to the different natural environment distribution and various production methods in Thailand, the Thai language is influenced by multiple languages, thus forming a contrast in language and personality between the two countries.

However, from the perspective of globalization, Thailand's language and culture have absorbed a great deal of Western customs in its nearly 40 years of active interaction with the international community. The north of Thailand is close to China and has rugged, mountainous, and foggy terrain. The environment is harsher compared to southern Thailand. As a result, the northern Thai industry constitutes a number of primary industries and border transactions [1]. In contrast, Southern Thailand has a large amount of coastline and it is recorded that the present-day Bangkok dynasty (Chakri) [2] has maintained frequent import and export trade with neighboring countries since the 18th century. The difference in geographic location and industrial composition has led directly to different urban development processes. A large number of areas in northern Thailand still have a lot of the qualities of an agrarian civilization, where people work at sunrise and rest at sunset. According to Nation Thailand 2022, the flattest and poorest region in the country is Isan, which belongs to the northern region of Thailand [3]. Differences in the development of urban industrialization have certainly led to different degrees of globalization. South-central Thailand, with Bangkok as a typical example. Bangkok is extremely internationalized and has absorbed a lot of English in terms of language. For example, the English word corresponding to the Thai words shown in Figure 1 (taksi) is taxi, and the Thai vocabulary shown in Figure 2 (cumpude) corresponds to computer, as does the vocabulary shown in Figure 3 (Diesel fuel). The vocabulary shown in Figure 4 (Hār dwær). Such foreign words are even words that appear in official documents. The historical reasons for the surprising ease with which such foreign words in English have been Thaiized are worth considering. During the reign of Rama 5, between 1868 and 1910, a comprehensive reform of the entire Thai social structure was carried out. The reforms were basically modeled on the British constitutional monarchy, as well as the entire social order, even in terms of street reform, which followed the British system exactly. As a result, Thailand and Thai society were actively integrated with Western society in the pre-World War I period [4]. Moreover, during World War II, the southern part of Thailand, such as Phuket, served as a U.S. military base, and a large number of people began to have living contact with American soldiers. As a result, modern Thai society is mainly in the south-central part of the country, with the capital city Bangkok as the main typical city, which is named in English in terms of urban construction. A major symbol is the BTS (Bangkok Mass Transit System). Bangkok uses the English abbreviation of the name of the Sky train as a direct way of referring to it. These foreign words are not all specialized words, such as biology, chemistry, and so on. Rather, it is a large number of words related to people's lives. Therefore, the actual Thai people live with a large number of Englishized Thai words every day. This everyday, colloquial vocabulary has a greater cognitive impact on the perception and character of people than the official vocabulary. Therefore, while absorbing a large amount of language, the proportion of its original Thai attributes in society is gradually decreasing. The difference in perception is often accompanied by a change in personality. In Bangkok, people are more critical and challenging in their approach to social class and authority. This is directly related to the immersion in Western language and culture. In the north of Thailand, because of its agrarian civilization for generations, there is a clear sense of class. In the more cosmopolitan cities, people are exposed to Westernized vocabulary and culture on a daily basis, which makes them more challenging to authority. An important example of this is the anti-royalty movement that emerged in 2020. Countless people took to the streets to oppose the kingship that has been in place for millennia.

Therefore, the invasion of Western civilization and the social reforms in Thailand have had a profound and far-reaching impact on the Thai language.

แท็กซี่

Figure 1: Taxi in Thai.

คอมพิวเตอร์

Figure 2: Computer in Thai.

ดีเซล

Figure 3: Diesel fuel in Thai.

ฮาร์ดแวร์

Figure 4: Hardware in Thai.

Geographically, there is a potential causal relationship between climate, environment and language. According to Caleb Everett in the Journal of Language Evolution, different modes of production have different effects on language according to geographic location, population density, and migration patterns. As shown in Figure 5, the creation of language is influenced by a variety of factors. Different regions and climates with different vegetation and natural environments have an impact on the formation of their languages [5]. Thailand has a tropical monsoon climate with rich vegetation and tall trees. Northern Thailand is mostly evergreen forests, mixed deciduous forests, deciduous bamboo forests, deciduous loblolly forests, and pine forests, with a high mountain rainforest cover of about 40% [6]. The southern part of Thailand is mostly tropical rainforest with even more lush vegetation. Therefore, its language necessarily needs to be very penetrating. Hence the long trailing coda common in Thai. The flatter language makes the sound more penetrating. However, Chinese, for example, is based on the dialects of Hebei and Beijing. Northern China (around Hebei) has less vegetation than Thailand, and its vegetation cover is less dense than Thailand's, with only 3.4% of the area covered by forests until 1949 [7]. Therefore, there are fewer barriers to its communication, and the language has developed a more direct, short, and dry pronunciation. In addition, according to Wichmann and Moran, the influence of climate as well as air fitness on the shape and structure of the

nose leads to the degree of use of nasal sounds in their ethnically used language [8]. According to Pinkerton's study, it appears that there is a direct link between climate and the degree of articulatory oral opening and closing. People in cold regions, influenced by cold currents and temperature, will have much fewer open-mouth sounds than people in hot regions [9]. In Thai, the "W" replaces the "V" in Chinese, the "R" changes to "L", etc. Thai has more and more exaggerated open-ended sounds, compared to Mandarin, which has fewer exaggerated sounds because of its cold climate in the north. The relationship between humidity and language has been analyzed in studies on laryngology. These studies clearly show that ambient air with low humidity can have various effects on human vocalization. These include increases in vocal threshold pressure, "perceived phonation effort, as well as increases in jitter and shimmer" [10]. At least part of the effect of dry air is due to the evaporation of fluid covering the vocal folds and other parts of the vocal tract. The evaporation causes a decrease in the viscosity of the vocal fold surface fluid. Severe ambient dryness produces dry, relatively inelastic vocal folds that are more difficult to control and therefore less likely to have complex syllables. The air in northern China is dry, so one word is usually one syllable in Mandarin, and complex syllables rarely occur. Thai, on the other hand, has a number of bends and turns. In summary, Mandarin is more direct and straightforward, a quality that makes Chinese characters more straightforward than Thai speakers. Within China, however, there is still a north-south divide. In the north, due to its geographical location, the climate varies greatly and is harsh. Since ancient times, agriculture as well as animal husbandry have been the main sources of livelihood in the north. Most people in the north do not like to talk in a roundabout way and are more frank, simple, and unpretentious. Because of the harsh climate, the northern dialects are more pronounced and more direct. The South has been a commercial area since ancient times, with industry and commerce redundant with farming, and the climate and geography are better than the North, so the tone is slower. Their economy is more developed than that of the north, and people are also very business-minded. Therefore, the character is more euphemistic. For the latter, in daily life, Thai speakers are more casual and inflexible, while Mandarin speakers are more straightforward.

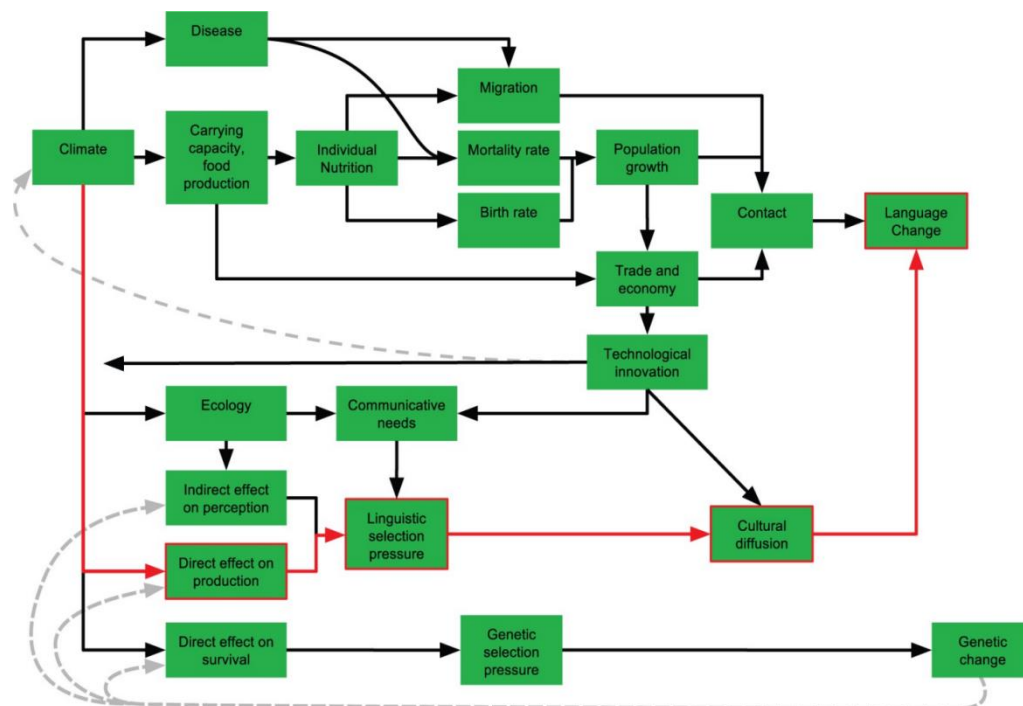


Figure 5: Potential causal connections between climate and language change.

3. Conclusion

This paper briefly discusses the localization of various theories and hypotheses and the application of theories to the Thai context, discovering the developing process of the contemporary Thai language. Contemporary Thai has been greatly affected by the trend of globalization, with a great number of English-origin words localized. Also, with the evolution of humans, the industry that Thai people developed has affected the vocabulary of the Thai language. The pronunciation of the language is shaped by the terrance, plantation, and climate, which structure the shape of the nose, thus, affecting the pronunciation. In short, through the search for language development research materials, there is no complete, in-depth study of language and personality. There is only a partial discussion of the Wolff hypothesis. In the future, the deep discussion regarding the cognition changes corresponding to the language change could be discussed more.

References

- [1] *Regional Investment and Economic Centre 1 Chiang Mai*, Chiang Mai Provincial Business Development Office; Chiang Mai Provincial Comptroller General, Office of Commercial Affairs Chiang Rai. (2017). Home. www.oecd-ilibrary.org. <https://www.oecd-ilibrary.org/sites/e2db5d9a-en/index.html?itemId=/content/component/e2db5d9a-en#tablegrp-d1e815>
- [2] Rungruang, J. (2016a). *The Sino-Siam Tributary Relations*. *Journal of International Studies*, 6(1).
- [3] Nation, T. (2022, February 17). *Provinces with the most and least number of poor people*. *Nationthailand*. <https://www.nationthailand.com/in-focus/40012451>
- [4] Britannica, T. Editors of *Encyclopaedia* (2022, October 19). *Chulalongkorn*. *Encyclopedia Britannica*. <https://www.britannica.com/biography/Chulalongkorn>
- [5] Everett, C., Blasi, D. E., & Roberts, S. G. (2016). *Language evolution and climate: the case of desiccation and tone*. *Journal of Language Evolution*, 1(1), 33–46. <https://doi.org/10.1093/jole/lzv004>
- [6] *Green Trails*. (n.d.). *North Thailand Flora: trees, plants and flowers*. *Green Trails*. Retrieved April 28, 2023, from <https://www.google.com/url?q=https://www.green-trails.com/north-thailand-flora/&sa=D&source=docs&ust=1682689288917344&usq=AOvVaw0jsafiMRJcwPSKrFOeIsmt>
- [7] *Forestry and Grassland Bureau of Hebei* (2023). *Hebei.gov.cn*. <http://lycy.hebei.gov.cn/zhiwu/list.php?t=1&sortid=1>
- [8] Moran, S., McCloy, D., & Wright, R. (2012). *Revisiting population size vs. phoneme inventory size*. *Language*, 877–893.
- [9] Pinkerton J. (1789) *An Enquiry into the History of Scotland Preceding the Reign of Malcolm iii. or the Year 1056: Including the Authentic History of that Period: In Two Volumes*, Vol. 1. London: John Nichols.
- [10] Everett, C., Blasi, D. E., & Roberts, S. G. (2015). *Climate, vocal folds, and tonal languages: Connecting the physiological and geographic dots*. *Proceedings of the National Academy of Sciences*, 112(5), 1322–1327.