

## Commentary

# Why Native Language Secrecy No Longer Works in Modern Warfare: The Case of North Koreans in the Russo-Ukrainian War

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The historical use of native languages for secure military communication, often referred to as code talking, has provided tactical advantages in warfare. However, this paper argues that such methods, like those employed by the Navajo code talkers of World War II, are no longer effective in modern warfare. A recent case is Russia's deployment of North Korean soldiers in the Russo-Ukrainian War, which raised the question of whether their language could provide a linguistic advantage. This paper examines why native language secrecy, including the potential use of North Korean as a code language, has lost its effectiveness. Factors such as advancements in AI-driven linguistic analysis, extensive international intelligence monitoring, and the well-documented nature of the North Korean language have significantly reduced the viability of native language ciphers. Additionally, the logistical challenges associated with deploying large numbers of North Korean soldiers without sufficient language support have further undermined their strategic value. While such methods may still hold limited utility in small-scale operations, reinforcing psychological cohesion, and confusing the enemy, they are no longer a significant asset in the modern, highly interconnected intelligence landscape.

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## 1. Introduction

The utilization of native languages for secure military communication, known as code talking, has historically provided strategic advantages in warfare. One of the most notable examples is the Navajo code talkers of World War II, whose language-based cipher was indecipherable to Axis intelligence. Apart

from Navajo, United States during the world wars had recruited speakers of other tribal languages as well such as Hopi, Comanche, and Meskwaki<sup>[1]</sup>.

More recently, reports suggest that North Korean soldiers were deployed by Russia in October 2024 as part of the ongoing Russo-Ukraine War<sup>[2]</sup>. This development raised questions about whether North Korean troops could serve as modern-day code talkers, potentially giving Russia a linguistic advantage. Serrano and Kubecka<sup>[3]</sup> explored this intriguing possibility in an article on ResearchGate, arguing that both Ukraine and Russia were utilizing code talkers in their military strategies. According to reports, Ukraine incorporated Hungarian-Ukrainian soldiers for secure communications, while Russia not only benefitted from increased manpower but also from the linguistic advantage of recruiting North Korean personnel.

However, in this paper, I argue that while the initial analysis of North Korean involvement as code talkers seemed plausible, their deployment has ultimately proven ineffective. Over time, reports have indicated high casualty rates among North Korean troops, with some even being captured by the Ukrainian army. In reality, integrating North Korean soldiers into Russia's military strategy appears to have backfired. This paper examines why code talking and native language secrecy are no longer viable large-scale tactics in modern warfare. While such methods may still be useful in limited, localized operations and provide psychological benefits—reinforcing in-group cohesion among soldiers while creating an out-group perception among enemy forces—they can also lead to operational confusion. Ultimately, these tactics are insufficient to influence the broader course of war in the contemporary warfare.

The decline of native language secrecy in warfare can be attributed to several factors, including AI-driven linguistic analysis, extensive intelligence monitoring of North Korea and thus the potential study of North Korean language-related information by South Korea and other foreign entities and the potentiality of sharing this information in an interconnected web of intelligence between America, Ukraine and South Korea (in the case of Russo-Ukrainian war). As a result, the effectiveness of code talking has significantly diminished in the contemporary era. This paper argues that while code talking proved effective in past conflicts (and may still have uses on a small scale), it is no longer a viable strategy in modern warfare.

## 2. The Evolution of Code Talking

Code talkers were service members of the United States Army during the World Wars who used Indigenous languages to transmit secret messages. Originally, the term referred specifically to Native American soldiers who relayed classified communications in languages such as Navajo, Hopi, and Cherokee. Over time, the term has come to describe the broader practice of using under-resourced or lesser-known languages for secure military communication. While Navajo code talkers are the most well-known—receiving formal recognition from the U.S. Congress in 2001—many other Indigenous languages were also used. In fact, more than twenty other tribes played a significant role in code talking for the U.S. Army during both World Wars<sup>[4]</sup>.

The Navajo code talkers, though crucial in World War II, were not the first to serve in this role. The earliest known experiment in code talking involved Choctaw speakers, who transmitted secret messages during World War I<sup>[5]</sup>. The success of this experiment led the U.S. military to establish a specialized program for recruiting Indigenous soldiers who were fluent in both their native language and English.

The Navajo code talkers became especially crucial after the Japanese Empire attacked Pearl Harbor in Hawaii in 1941, prompting the U.S. to declare war on Japan. In 1942, the U.S. military began recruiting Navajo speakers to develop a Navajo-language-based code to confuse the Japanese<sup>[6]</sup>. This strategy proved highly effective, as Navajo was an unwritten language at the time and had been studied by very few researchers such as Robert Young, William Morgan and Edward Sapir.

Navajo itself is a complex language, and since it lacked a written script, even the code talkers had to undergo rigorous training and drills to master the system<sup>[7]</sup>. In addition to using the language itself, they developed a Navajo-based coding system in which each letter of the English alphabet was assigned a Navajo word whose meaning corresponded to an English word starting with that letter. For example, to represent the letter "D," a code talker would say CHINDI, which literally means "Devil" in English—since "Devil" starts with "D," the word CHINDI signified the letter "D." Additionally, there were alternative codes for the letter "D," such as BE (meaning "Deer") and LHA-CHA-EH (meaning "Dog"). To say "Land the plane!" in Navajo code talking, one would transmit: AH-JAD / WOL-LA-CHEE / TSAH / CHINDI – D-AH / LIN / DZEH – NE-ZHONI / AH-JAD / WOL-LA-CHEE / TSAH / CHUO.

To further confuse the enemy, the code talkers constructed a dictionary based on Navajo words to represent military ranks, country names, weapons, ships, airplanes, and more. Even for a native Navajo speaker, decoding these messages without training would have been challenging due to the unique

assignments of meanings. For instance, in Navajo code talking, the word for "Tank" was CHAY-A-GAHI, which translates to "Tortoise" or "Turtle."

The most prominent examples of code talking come from the use of Native American languages by the U.S. military during the First and Second World Wars. Other instances include the use of Basque by the U.S., Nubian by Egypt, and Oujiang in southeastern China during China's war against Vietnam. More recently, reports suggest that Ukraine has utilized its native Hungarian-speaking personnel in the military to use their language as a code in the war against Russia<sup>[3]</sup>. However, such examples are sparsely documented in the literature, and there is little detailed description of their use, efficacy, or evidence of a dedicated program comparable to that of the U.S. Army. Hence, there remains little known about other militaries systematically employing lesser-known languages in the way the U.S. did with Navajo and other Indigenous American languages.

Thus, the use of Navajo—and other Indigenous tribal languages—remains a unique historical example of language being actively employed as a wartime code for secure communication between military units and to deceive the enemy.

### **3. North Korean Troops in the Russo-Ukraine War**

Reports emerged in October 2024 that Russia had integrated North Korean personnel into frontline combat units. The motivations behind this decision likely included addressing manpower shortages to avoid full mobilization, repelling the Ukrainian incursion in Kursk Oblast, and preventing the weakening of other fronts, given that Russia had already redeployed nearly 50,000 personnel to Kursk from other areas<sup>[2]</sup>. Even while it's still unclear how much North Korea is involved in Ukraine, footage of detained North Korean soldiers in Ukrainian detention gives the allegations credibility<sup>[8]</sup>.

With the initial reports of North Korean troop deployments, Serrano and Kubecka<sup>[3]</sup> speculated that, beyond the abovementioned strategic motivations, Russia might also benefit linguistically from utilizing North Korean forces. They suggested that the North Korean language could serve as a form of "natural encryption" due to the country's isolation and the long-standing division between North and South Korea, which have led their languages to evolve significantly apart. Additionally, the introduction of new vocabulary over time, along with the existence of distinct dialects—some of which are on the far end of the intelligibility spectrum—could add layers of complexity. As a result, they argued that this linguistic

barrier would secure Russian communications against Ukrainian forces, making signal interception more difficult.

While their argument presents an intriguing perspective, the notion that North Korean troops provide Russia with a significant linguistic advantage is ultimately flawed. The assumption that Ukrainian forces would be entirely unable to decipher North Korean communications overlooks the reality of international intelligence-sharing. From the outset of reports linking North Korea to Russia's frontline efforts against Ukraine, President Zelensky and then-President Yoon Suk Yeol agreed in a phone call to cooperate by sharing intelligence and expertise<sup>[9]</sup>. Furthermore, South Korea's National Intelligence Service (NIS) later confirmed both Ukraine's government reports and intelligence claims regarding the capture of North Korean soldiers<sup>[10]</sup>. As a key ally and intelligence-sharing partner, South Korea is well-equipped to help mitigate any potential advantage Russia might gain from North Korean linguistic secrecy.

It is safe to assume that South Korea's National Intelligence Service (NIS) has closely monitored and gathered extensive information about North Korea. In fact, North Korean defectors in South Korea undergo a rigorous resettlement program that includes thorough interrogation<sup>[11]</sup>. Given this, it is reasonable to assume that the NIS has extensively studied North Korean dialects and potential language barriers, significantly diminishing any linguistic advantage that Russia might hope to gain.

Furthermore, comparing Navajo code talkers to modern North Korean "code talkers" is misleading. During World War II, Navajo was not widely studied, lacked a standardized writing system, and was virtually unknown outside its native speakers. In contrast, the North Korean language is well-documented, with extensive literature on both North and South Korean dialects<sup>[12][13][14]</sup>. Additionally, North Korean television channels are accessible, allowing for continuous language study. In fact, consistent monitoring of North Korean broadcasts has led to widespread analysis and speculation, such as attempts to assess Kim Jong Un's health based on his apparent weight fluctuations seen on television. This level of linguistic exposure further weakens the argument that North Korean troops offer Russia any meaningful secrecy advantage in military communications.

Another challenge facing North Korean troops in Russia is the shortage of interpreters. Reports indicate that approximately 12,000 North Korean soldiers have been deployed to Russia, with one interpreter and three Russian soldiers assigned for every 30 troops (as cited in <sup>[2]</sup>). This means nearly 400 interpreters are required to support the deployed forces. This issue is further complicated by the fact that interpreters are not necessarily trained for combat, making them more vulnerable in conflict zones. Additionally, the

loss of an interpreter would exacerbate the shortage, further disrupting coordination between North Korean and Russian troops. As a result, their forces risk becoming even more disjointed and disoriented compared to the Ukrainians.

Furthermore, as of January 2025, reports suggest that around 3,000 North Korean soldiers have been killed or injured. Around the same time, there were indications that North Korean deployments may have been withdrawn—possibly temporarily—for further retraining<sup>[15]</sup>. These reports suggest that Russia has not gained a linguistic advantage from the presence of North Korean troops. In fact, if they had instead employed 400 Korean-Russian interpreters, they could have developed a code-talking system rather than relying on costly North Korean soldiers. Notably, the number of Navajo code talkers during World War II is estimated to have been roughly the same as the number of interpreters currently utilized. If one of Russia's main goals was to use these troops as code machines, it was a miscalculation and a strategic failure.

Another point to consider is that Russia did not originally intend to use these troops for code talking—or if it did, the project was poorly executed. The comparison between North Korean troops and Navajo code talkers, as Serrano and Kubecka<sup>[3]</sup> suggest, is not quite accurate. For one, the Navajo code-talking program was a highly classified U.S. military initiative that remained unknown until it was declassified in the 1950s. It was a meticulously organized program in which Navajo code talkers underwent rigorous training, and the code system they developed was unintelligible even to native Navajo speakers. In contrast, there have been no reports or evidence suggesting that the North Korean deployment to Russia shares any of these characteristics.

Additionally, the Navajo and other Native American code talkers were highly proficient in both English and their indigenous languages. This meant they did not require translators. They served as both the transmitters of the coded messages and the interpreters who conveyed the information to English-speaking soldiers. As a result, the primary concern was protecting the code talkers themselves, rather than both the code talkers and interpreters who may have lacked combat experience.

## **4. Factors Contributing to the Decline of Native Language Secrecy**

Several factors, ranging from sociopolitical changes to technological advancements, have contributed to the decline of native language secrecy in military contexts. Today's world is more interconnected than ever. For example, during World War II, Japan faced a severe linguistic disadvantage against the U.S.

because it had only Japanese-English-speaking personnel and no Navajo or other Native American tribal language speakers to intercept U.S. Army communications. However, in the modern era, speakers of various native languages are widely dispersed and can easily connect through digital networks. Additionally, extensive language databases and academic research exist for nearly every language. When combined with advancements in artificial intelligence (AI), particularly in machine learning and natural language processing (NLP), these developments have significantly reduced the strategic role of code talkers in warfare.

Employing code-talking strategies in contemporary warfare might have brief and temporary effectiveness, particularly in small-scale military tactics, whether organized or unorganized. Troops could use their native languages on the battlefield depending on the situation and their decisions. However, in an AI- and technology-driven modern warfare landscape, such efforts would ultimately not provide the long-term strategic advantages they once did, as seen with the Navajo code talkers in the 1940s.

One reason North Korean troops have been ineffective in the Russo-Ukrainian war is their lack of knowledge in drone warfare<sup>[16]</sup>. Their insufficient training in modern warfare and military technology presents a significant disadvantage, regardless of any potential advantage their language might offer due to its unfamiliarity to Ukrainians. As such, advancements in security and encryption technologies are among the key factors rendering code talking ineffective in contemporary warfare, even if personnel capable of utilizing such strategies were available.

To preliminarily test the potential of AI in decoding a language-based code similar to that used by the Navajo code talkers, I conducted a brief experiment. My aim was to evaluate whether publicly accessible AI models—available to everyone—could decipher such a code. (It is reasonable to assume that military AI systems would be much more advanced.) For this experiment, nonetheless, I created a Navajo-like language-based code and presented it as a prompt to *Google AI Studio Gemini 2.0 Pro Experimental*, asking it to decode the message. (The full conversation took place on February 19, 2025, and is available in Appendix 1.) However, I did not disclose that the code was based on my native language, Kurdish Sorani. The following was the prompt provided for the AI:

This hypothetical scenario seeks to determine if an AI can decipher contemporary code-talking attempts. Imagine that the US army utilizes speakers of the language to transmit secret information during a battle. The following text is a language-based code created

employing a native language. Are you able to decipher this intercepted code as an AI? The code is:

دریژ - مپرووله - چتر - خاندان - پشیلہ - مریوئیسہ لہ

This code was intended to convey the message: "Launch the missile at the tank." Each Kurdish word was assigned to represent an English letter; for example, دریژ (drezh) was used for "L," and so on. Particles such as بو, which translates to "at the" or "to... at," remained unchanged. Similar to the Navajo codebook, the Kurdish word for turtle, کيسل (kisel), was used to represent "tank," with the definite affix -اکا (-aka) attached to it.

Of course, this is a simplified example, but this experiment aimed to assess whether AI could effectively decipher a contemporary attempt at code-talking, similar to the Navajo Code Talkers of World War II. The AI followed a systematic approach, breaking down the message step by step. The AI recognized that identifying the source language was crucial before attempting any decipherment. It noted the lack of familiarity with major global language families (e.g., Indo-European, Sino-Tibetan) and focused on linguistic structures such as hyphenation patterns and the script used. Based on these clues, it hypothesized that the language was Kurdish (Kurmanji or Sorani), a significant key to decipher what is said.

Once the language was identified as Kurdish, the AI attempted a direct word-for-word substitution and other language analyses. It analyzed the individual words in the code, compared them to known Kurdish vocabulary, and then suggested potential meanings based on interpretation and assumptions. These assumptions and hypothetical interpretations were subsequently employed by the AI. Finally, the AI arrived at four possible decryptions (and I am quoting):

Possible Decryptions (Several, based on different interpretations):

Option 1 (Attack Order): "Long-range artillery, support infantry, attack the command post of the armored unit." (Long = Artillery, Ant = Infantry, Umbrella = Support, Noble = Command Post, Cat = Attack, Chicken=Target, Turtle = Armored Unit)

Option 2 (Movement Order): "Extend the defensive line, reconnaissance unit to the vulnerable point, for the armored unit." (Long = Extend, Ant = Defensive Line, Umbrella = Protection, Noble = Specific Place, Cat = Recon, Chicken = Vulnerable Point, Turtle = Armored Unit).



Option 3 (Status Report): "Long road is under air cover, command post is secure, reconnaissance unit is observing the enemy's slow advance." (Long = Road, Ant = Small unit/slow, Umbrella = Air Cover, Noble = Command Post, Cat = Recon, Chicken = Enemy/Vulnerable, Turtle = Slow Advance).

Option 4 (Simplest Meaning): "Request long range air support for tank unit".

In real-life scenarios, this approach and its findings can be continually refined through trial and error, eventually leading to the breaking of the code or bringing it closer to being cracked.

However, there are several limitations in this experiment and the role of AI systems in decoding similar coded messages. First, the experiment utilized a simplified language-based code, which may not fully capture the complexity of real-world military code-talking systems. In actual military operations, codes can be much more intricate and layered, often incorporating multiple levels of encryption, misdirection, and contextual variation. While AI is capable of analyzing linguistic structures, it lacks the adaptive thinking that human code talkers possess. Human code talkers can modify language in real-time, adjusting it to changing circumstances and evolving needs on the battlefield.

Secondly, although Kurdish language faced historical discrimination, it is now widely spoken and increasingly supported by AI systems. There are even Kurdish AI researchers who are actively working to enhance AI's ability to support the language. As such, the Kurdish language used in this experiment was not unfamiliar to Google AI or other advanced AI models. The availability of Kurdish-language resources and AI support makes it easier for AI systems to interpret and decode Kurdish-based messages. Therefore, while this experiment was designed to test AI's potential to break language-based codes, it does not fully reflect the challenge posed by less-supported languages or more sophisticated, layered codes.

In conclusion, this brief experiment serves primarily to demonstrate that advanced AI systems have the potential to decode language-based codes in principle. The rise of encryption technologies and security measures in modern warfare further diminishes the relevance of language-based codes as effective strategies for military secrecy.

## 5. Conclusion

Ultimately, the deployment of North Korean troops in the Russo-Ukraine War appears to be more of a manpower reinforcement effort rather than a strategic attempt to exploit linguistic encryption. While the idea of using North Korean forces as a form of natural code talking is an interesting hypothesis, it lacks

substantial support. The accessibility of North Korean linguistic resources, the intelligence-sharing capabilities of South Korea and its allies, and the significant interpreter shortages all point to the inefficacy of this approach.

Due to various factors, such as technological advancements and AI-driven progress, code talking, as employed by Navajo code talkers during the world wars, is no longer effective in modern warfare. In the current landscape, where encryption and cyber warfare play a far more significant role, the traditional concept of linguistic encryption becomes increasingly outdated. While the concept of using linguistic resources, like those from North Korean forces, as a strategic tool in modern warfare is intriguing, it is ultimately impractical and inefficient in the face of contemporary technological advancements.

## Appendix

This hypothetical scenario seeks to determine if an AI can decipher contemporary code-talking attempts. Imagine that the US army utilizes speakers of the language to transmit secret information during a battle. The following text is a language-based code created employing a native language. Are you able to decipher this intercepted code as an AI? The code is:

در پژ-میر و له-چتر-خاندان-پشیلہ-میری پندہ آہ

Okay, this is a fun and challenging scenario. Here's my attempt to decipher the code, along with my reasoning and the assumptions I'm making:

### *Assumptions and Approach*

- 1. Language Identification is Key:** The single most crucial step is identifying the source language. Without that, we're stuck. The structure and lack of familiar Indo-European, Sino-Tibetan, or other major language family elements suggest a less commonly used language. The presence of hyphens strongly suggests a language that uses compound words extensively, and one that uses Latin script (even if a modified form). This is different than the typical Navajo Code Talker approach, suggesting a modern, perhaps ad-hoc system.
- 2. Word-for-Word Substitution (Initially):** I'll start by assuming a relatively simple substitution cipher, where each hyphenated word represents a single concept, letter, number, or short phrase. This is a good starting point, but we may need to adjust.
- 3. "/B3/" and "پندہ آہ" are Special:** The presence of a slash, and what looks like distinct words/phrases after the first long string, suggests these have a different function. They might be:

- **"/Bṣ/":** A separator, indicator of message type, target recipient, or a key word. The "Bṣ" could be phonetic and important, or it could be a visual marker. It *might* represent "to" or "for," based on context, IF we identify the source language.

- **"یسەڵەدە":** This is likely a noun, possibly a callsign, a target location, or a key word within the message itself. The -ە ending looks like a definite article (the) in some languages.

**4. Context is Crucial (But Limited):** We know this is a *battlefield* message. That limits the likely meanings to military terms: orders, locations, requests, reports, etc.

**5. Iterative Approach:** I will use a combination of educated guesses, pattern recognition, and (if possible) external tools to test hypotheses and refine the decipherment.

### *Initial Breakdown and Guesses (Before Language ID)*

Let's look at the long hyphenated string:

درێژ-مێروولە-چەتر-خانەدان-پیشە-مری

- **درێژ (Drêj):** Could mean "long," "tall," "extend," or a related concept.
- **مێروولە (Mêrwule):** This looks like it might relate to "ant" or a similar small insect.
- **چەتر (Çetr):** "Umbrella," "parachute," or something providing cover.
- **خانەدان (Xanedan):** This one is tougher, but could relate to "house," "family," "lineage," "noble," or a specific place name.
- **پیشە (Pişîle):** Likely "cat" or a related feline.
- **مری (Mirişk):** Probably "chicken," "hen," or a related bird.

### *The Big Leap: Language Identification*

The script, use of hyphens, and word structure strongly suggest **Kurdish (Kurmanji)**. Many of the words have clear matches:

- **درێژ (Drêj):** Long
- **مێروولە (Mêrwule):** Ant
- **چەتر (Çetr):** Umbrella
- **خانەدان (Xanedan):** Dynasty/Noble
- **پیشە (Pişîle):** Cat
- **مری (Mirişk):** Chicken
- **بۆ (Bo):** For

- كيشل (Kîsel): Turtle, tortoise

### *Refined Interpretation (Knowing it's Kurdish)*

Now that we have a likely language, we can refine our approach.

#### 1. The Code: Long-Ant-Umbrella-Noble-Cat-Chicken /For/ Turtle

#### 2. Hypotheses:

- **Letter/Number Code:** Each word *could* represent a letter or number. This is unlikely, given the military context. A longer message would be needed to test this.
- **Keyword Substitution:** Each word represents a pre-agreed keyword:
  - Long: Could be a range, a road, a type of unit ("long-range artillery").
  - Ant: Could be a small, numerous unit (infantry), a code name for a specific unit, or a slow-moving vehicle.
  - Umbrella: Air cover, air support, protection, or a defensive position.
  - Noble: A high-ranking officer, a command post, a valuable target.
  - Cat: Fast, stealthy, a reconnaissance unit, or a specific type of vehicle.
  - Chicken: A vulnerable target, a distraction, a decoy, or a supply unit (food).
  - For: Indicates the intended recipient or purpose.
  - Turtle: A heavily armored unit (tank), a slow-moving unit, a defensive position, or a specific callsign.

#### 3. Possible Decryptions (Several, based on different interpretations):

- **Option 1 (Attack Order):** "Long-range artillery, support infantry, attack the command post of the armored unit." (Long = Artillery, Ant = Infantry, Umbrella = Support, Noble = Command Post, Cat = Attack, Chicken=Target, Turtle = Armored Unit)
- **Option 2 (Movement Order):** "Extend the defensive line, reconnaissance unit to the vulnerable point, for the armored unit." (Long = Extend, Ant = Defensive Line, Umbrella = Protection, Noble = Specific Place, Cat = Recon, Chicken = Vulnerable Point, Turtle = Armored Unit).
- **Option 3 (Status Report):** "Long road is under air cover, command post is secure, reconnaissance unit is observing the enemy's slow advance." (Long = Road, Ant = Small unit/slow, Umbrella = Air Cover, Noble = Command Post, Cat = Recon, Chicken = Enemy/Vulnerable, Turtle = Slow Advance).
- **Option 4 (Simplest Meaning):** "Request long range air support for tank unit".

## Conclusion

Without more context or a larger sample of coded messages, a *definitive* decipherment is impossible. However, by identifying the language as Kurdish (Kurmanji), we've made significant progress. The most likely interpretations involve military actions, with "Turtle" representing a heavily armored unit or a slow-moving target, and the hyphenated words representing either specific units, actions, or locations. Option 4 is the most concise, and therefore perhaps the most probable.

### *Next Steps (If this were a real scenario)*

1. **Gather More Intercepts:** More coded messages are essential to identify patterns and confirm/refute hypotheses.
2. **Contextual Information:** Any intelligence about the specific battle, units involved, and likely objectives would be invaluable.
3. **Kurdish Linguist Consultation:** A native Kurmanji speaker with military experience would be critical for confirming the language, nuances of word choice, and potential slang/jargon.
4. **Computational Analysis:** I'd look for statistical frequency of words and word combinations, if more data were available.
5. **Look for Repetition:** If "Long-Ant-Umbrella-Noble-Cat-Chicken" appears in multiple messages with different endings, that strongly suggests a codebook approach.

This demonstrates the challenges and the process of code-breaking, even with a relatively simple code. The language identification was the key breakthrough.

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