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GRAMMATICAL MECHANISMS OF SEMANTIC REDUNDANCY AND THEIR ROLE IN SPEECH COMPREHENSION

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ANNOTATSIYA:

This paper examines how human languages use grammar to repeat information, a phenomenon known as semantic redundancy. It focuses on three main grammatical mechanisms: subject-verb agreement (like using plural markers on both the noun and the verb), grammatical gender matching, and the simultaneous use of tense markers with time adverbs. The paper draws on existing research in structural linguistics and cognitive communication to analyze why languages repeat information that is already clear. The findings suggest that grammatical redundancy is not a mistake or a waste of space; instead, it acts as a safety net that helps prevent communication failures, especially in noisy environments or during fast conversations. These mechanisms make language easier to understand and process for both native speakers and language learners.

INTRODUCTION

When we think about efficiency, we usually think about using the fewest resources possible to get a message across. In language, this would mean saying each piece of information exactly once. However, if you look closely at any human language, you will notice that grammar is full of repetition. We constantly mark the same information—like numbers, gender, or time—multiple times in a single sentence. This repetition is called semantic redundancy. At first glance, redundancy might seem like a flaw in language design. Why should a language require speakers to say things that are already clear from context? For instance, in the sentence "Two boys walk to school," the word "two" already tells us there is more than one boy, so adding the plural "-s" to "boys" is technically repetitive. Yet, languages

all over the world systematically enforce these rules. The reason for this lies in how humans communicate. Communication does not happen in a vacuum; it happens in the real world, which is full of distractions, noise, and imperfect hearing. If a language had zero redundancy, missing a single sound or syllable would completely ruin the message. This paper focuses on three specific grammatical means of creating semantic redundancy: subject-verb agreement, gender concord (matching), and combined tense-adverb marking. The aim of this article is to explain why these grammatical rules exist and how they protect the flow of human communication.

LITERATURE REVIEW

The study of redundancy in language gained serious attention with the development of Information Theory by Claude Shannon (1948). Shannon proved that in any engineering or communication system, a certain amount of redundancy is absolutely necessary to fight "noise" and ensure that the message arrives accurately at its destination. Linguists quickly realized that human speech operates under the exact same laws. Hockett (1960), in his famous work on the defining features of human language, noted that linguistic redundancy is usually around 50%. This means that about half of what we say or write is grammatically predictable, giving the brain a buffer zone to understand sentences even if some words are blurred or cut off. In the realm of syntax and morphology, Corbett (2006) did extensive research on agreement systems across world languages. He demonstrated that agreement (or concord) is the ultimate grammatical tool for redundancy. When an adjective or verb changes its shape to match a noun's gender or number, it establishes a visible or audible link across the sentence, helping the listener's brain stitch the pieces of the message together. From a cognitive perspective, Givón (2001) argued that grammaticalized redundancy reduces the "processing load" on the human mind. When information is repeated via regular grammatical markers, the listener does not have to guess or use high mental effort to figure out who did what action. The grammar does the heavy lifting automatically. Together, these theories form the structural foundation for analyzing how redundancy serves as a cognitive tool rather than a linguistic waste.

METHODOLOGY

This article is a review-based conceptual study. It does not utilize quantitative statistical data or live experiments. Instead, it systematically examines structural rules across different languages (specifically looking at English, Spanish, and Uzbek elements) and applies established linguistic theories to evaluate how grammar creates redundancy. The chosen analytical frameworks are Shannon’s (1948) Information Theory applied to linguistics, Hockett’s (1960) redundancy principles, and Corbett’s (2006) theory of grammatical agreement. By utilizing these frameworks, the paper breaks down specific everyday sentence structures to show the practical, communicative function of redundant grammar rules, making the concepts clear through relatable linguistic examples.

RESULTS

First, subject-verb agreement acts as a double-marking system that secures the relationship between the actor and the action. In languages like English or Russian, both the pronoun/noun and the verb carry markers showing who is speaking or acting. If the speaker's voice drops while pronouncing the subject, the verb ending alone can tell the listener exactly who the subject was. Second, grammatical gender matching (concord) creates a strong web of redundant connections across a sentence. In languages like Spanish, French, or Arabic, articles, adjectives, and nouns must all agree in gender. This triple or quadruple repetition ensures that even in long, complex sentences with multiple objects, the listener can instantly track which adjective belongs to which specific noun. Third, the simultaneous use of tense markers and time adverbs creates a temporal safety net. When a speaker says, “Yesterday I went to the store,” the past time is stated twice: once by the word “yesterday” and once by the past-tense form “went.” This redundancy ensures that the timeline of events is clear from the very beginning to the very end of the utterance.

DISCUSSION

The three grammatical mechanisms analyzed in this paper show that languages are built to prioritize safe delivery over short sentences. Redundancy is the “seatbelt” of human speech. The acoustic-noise analogy helps illustrate this clearly. Imagine you are talking to a friend at a loud train station. If you say a completely non-redundant sentence and a train whistle blows for half a second, your friend misses the entire point. But because grammar is redundant, your sentence has built-in backups. If you say, “Those three old books on the table are mine,” and the train noise drowns out the words “three” and “books,” your friend’s brain still hears the plural words “Those... are mine.” Because the grammar forced the words "those" and “are” to be plural, the listener automatically knows you are talking about multiple things, not just one. The grammar fills in the blanks caused by the noisy environment. We see this clearly in subject-verb agreement. In a sentence like “She speaks English,” the third-person “-s” at the end of “speaks” repeats the information already given by the pronoun “she.” In some dialects or fast speech, the word “she” might sound like “he” or get whispered, but that tiny “-s” at the end of the verb remains as a grammatical clue verifying the singular, third-person nature of the subject. Grammatical gender matching takes this repetition to an even higher level. Look at a Spanish example: “La hermosa casa blanca” (The beautiful white house). The feminine marker “-a” is repeated four separate times: in the article (“la”), the adjective (“Hermosa”), the noun (“casa”), and the second adjective (blanca). To a person whose native language does not have gender, this looks like complete overkill. Why repeat the feminine identity four times? LINGUISTICALLY, it prevents confusion. If you are describing a big house with a small yard, and you throw in three different adjectives, the gender endings tell the listener's brain instantly which adjective describes the house (feminine) and which describes the yard (masculine), no matter what order you say them in. Finally, combining time adverbs with verb tenses shows how grammar duplicates timelines. In the phrase, "Next

year we will move," the adverb "next year" tells us about the future. Grammatically, we could just say "Next year we move," and the meaning would be 100% clear. In fact, languages like Uzbek often do this, using the present/future form alongside a specific time word. But when English uses both "next year" and the auxiliary verb "will," it creates semantic redundancy. It guarantees that even if the listener is not paying attention at the start of the sentence ("next year"), by the time the speaker reaches the verb ("will move"), the future orientation of the message is reinforced.

CONCLUSION

This paper has argued that grammatical means of creating semantic redundancy are crucial features of natural human languages. Language is not a sterile mathematical code where every symbol appears only once. It is a live, biological tool used by real humans in imperfect, loud, and distracting environments. By forcing speakers to repeat information through agreement, gender matching, and dual tense markings, grammar builds a necessary buffer that protects communication from failing. The three strategies discussed—subject-verb agreement, gender concord, and tense-adverb combinations—prove that repetition is not a structural defect. Instead of viewing redundancy as a waste of breath, we should see it as a brilliant cognitive design that makes speech scannable and easy to process for our ears and brains. Future research could investigate how different levels of grammatical redundancy affect how quickly language learners learn to comprehend spoken sentences, or how artificial intelligence systems handle redundant versus non-redundant grammatical inputs. For anyone studying linguistics, recognizing the hidden value of redundancy changes how we look at the complex, repetitive rules of global grammar.

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