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Exploring Relationship of Animacy and Syntactic Cues in Processing Strategies of Second Language Learners

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Abstract

This study examines the relationship of animacy and syntactic cues within language processing strategies of second language learners. Animacy is deeply rooted in the cognitive machinery of language and the syntactic organization is sensitive to the animacy of the entities involved. Thus, the aims of the study are to explore how second language learners weight and integrate the syntactic information during a task where they are processing language, and to investigate the interaction between animacy and syntactic cues during their syntactic processing. This study has a descriptive and exploratory nature. It is a competition model, Macwhinney, that is used for the theoretical support, that is a cognitive model, and explains how 2 language learners move through their linguistic possibilities in real-time language processing. A total of fifty children (25, Girls and 25 boys) had been selected for this study and it was found that convenient random sampling techniques was used to collect the data and data was analyzed with the help of SPSS IBM version 22. The dominant behavior of using animacy for processing in the study also highlights the enduring and somewhat invariant tendencies of participants to incorporate animacy information into their cognitive processing of language.

Keywords: Animacy, Syntactic Cues, Processing Strategies, Second Language Acquisition, Russian.



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Introduction

In order to comprehensively model how different linguistic units, interact with each other, animacy and syntactic cues in processing strategies must be taken into consideration. A crucial aspect of this dynamic lies in the relationship between animacy and syntax the complicated interplay between a sentence's grammatical construction and the living (or nonliving) status of the parts upon which it is predicated. Animativity, or the ability to discriminate between living and non-living parts, is a fundamental property of all languages; more generally, it is an inherent part of the evolution of sentence structures. Animacy detection has profound implications for language user's cognitive processes, shaping the way we comprehend and convey relationships, events, and meaning encoded in a sentence (Carminati, van Gompel et al. 2008).

Syntactic structures the grammatical arrangements of words in sentences are sensitive to the animacy of the constituents involved. Animacy in different languages affect word order, case markers, and agreement patterns. Languages, for example, may have different syntactic structures in sentences with living subjects compared to sentences with lifeless subjects. Most recently, challenges of syntactic processing during parsing and garden path effects have been shown to be the same for L2 learners as for natives across the animacy syntax interface. To select appropriate syntactic structures, the brain needs to efficiently incorporate animacy signals into syntactic decision-making, which is influenced by parameters such as word order, agreement, and thematic roles (Macdonald, Brandt et al. 2020).

Brian MacWhinney's Competition Model offers important insights into the dynamic interaction between syntax and animacy during language processing. According to this paradigm, a range of syntactic structures, among other linguistic alternatives, compete for selection based on activation levels. In this competitive language context, animativity, which affects the activation of alternatives, plays key roles (Li and MacWhinney 2013).

Because understanding the relationship between animacy and syntax must be observed from the dynamics of parallel processing that characterize language comprehension, animacy can only provide a packaged or coarse grain representation of an entity. To produce a semantically consistent meaning, the mind needs both syntactic options and animacy of the things involved to weigh and used. Simultaneous processing affords the language interpretation between spoken or written language in real time.

Indeed, the integration of animacy information into syntactic processing is likely increased simply from how often it is encountered in linguistic input. Decisions regarding the syntax of a shape may be influenced by high frequency animacy signals, which may correlate with higher levels of activation. This frequency influence is a critical part of the Competition Model's account of animacy and syntax. The exact relationship between animacy and syntax is different in different languages, which draws attention to the immense natural diversity of linguistic expression. Schemas with strong animacy-based syntactic differences in some languages, and greater flexibility in others. Cross-linguistic studies broaden our understanding of how different language communities manage animacy within their syntactic systems (Bonin, 201–215).

The animatedness and syntax relationship adds a layer of complexity to the already rich tapestry of language, which also ties into the cultural and cognitive dimensions of linguistic representation. Examining the role of these relationships demonstrates the mental processes that drive syntactic decisions, and shows how animacy cues can transform the grammatical structure of sentences across different linguistic contexts. As more research in this area occurs and as we understand how

the complex webs of animacy and syntax intricately entangle each other, the fields of linguistics and cognitive science will grow all the more (Wiltschko, 2015).

Processing Strategies: The Ways People Intentionally Process Information to Enhance Thoughts, Understand, Recall, and Make Good Use of It. These are practiced and systematic strategies planned out to absorb, process, and memorize information more effectively. According to Oxford (1990), strategies can include cognitive strategies involving organization of information, metacognitive strategies that include self-regulation and meter of learning, affective strategies involving emotion, social strategies involving social interaction, and compensatory strategies over learning difficulties.

Processing strategy: Strategies that individuals purposely use to improve their learning experiences, understanding of new information, knowledge retention, or application. These strategies include deliberate and systematic methods for superior acquisition, understanding, and retention of information. These may consist of cognitive strategies where it involves arranging the educational content, metacognitive strategies that include self-regulating and monitoring the learning process, affective strategies that partial to emotional aspects, social strategies where the using of interaction with faculties or peers, and compensatory strategies that help to bypass learning difficulties (Oxford, 1990) Processing strategies comprise techniques, methods, and approaches that are used by learners to comprehend, acquire, retain, and apply new information and skills. These may be cognitive, metacognitive, affective, social or compensatory strategies. Here's a detailed overview:

Cognitive Strategies: The cognitive strategies coefficient is a measure of the inter-substantial measures of mental processes used to comprehend and manipulate information. consisting of: rehearsal the review of information to aid memorization (Pressley, 2006); repetition hearing and repeating information to help commit it to memory (Pressley, 2006); association connecting new information to things you already know can aid in retention of information (Pressley, 2006); visualization when you create a mental picture of something, it is easier to remember (Pressley, 2006); summarization the process of condensing information to focus on main points, condensing information makes it easier to understand (Pressley, 2006); and self-testing actively testing knowledge through quizzes or self-assessments (Pressley, 2006).

Metacognitive strategies: This strategy requires planning, monitoring, and evaluating the learning process. Seminal models refer specifically towards different processes such as planning: Goal Setting defined as explicit processing objectives and learning outcomes, planning how to study such as study timetables or strategies to achieve the learning objectives self-regulation: regulating your own learning and self-tracking learning progress and making adjustments if required, Evaluation: evaluating the effectiveness of processing methods and improving methods (Ku, 2010). Metacognitive strategies, these are strategies that describe how to control the learning regulatory process.

Examples are: self-motivation creating internal goals to learn or accomplish goals, positive Self-talk helping to encourage yourself to stay motivated and focused, and stress management using relaxation techniques to avoid anxiety or stress involving learning. Social strategies: strategies that involve interaction with others for learning purposes collaboration, working with peers or groups to enhance learning through discussion or joint projects seeking help, asking questions or seeking assistance from teachers or classmates, language use, engaging in conversations or social interactions to practice language skills. Compensatory Strategies: Used to compensate for language gaps or limitations. Circumlocution: describing a word or concept when trying to recall

the exact word or phrase. Guessing Meaning from Context: using surrounding information to help determine the meaning of unknown words or phrases.

Memory strategies: Acronyms, using first letters or words to remember longer information, Rhyme, or imagery to help with chunking, grouping smaller pieces of information to help recall (Crossman, 1992). None of these Processing strategies are exclusive so multiple of these can be used to improve learning outcomes. Good learners use some combination of these strategies depending on the task, domain, or context as part of optimizing their learning to achieve a greater mastery of new skills and knowledge.

Second Language Acquisition (SLA) is an extremely complicated, dynamic process to help people gain proficiency in a language other than their native language. Second, the development of linguistic, communicative and cultural competence in the second or foreign language is a complex cognitive-behavioral phenomenon. Second language acquisition (SLA) Studies approaches an understanding of SLA by looking into its various stages, factors, and descriptions that can be used to describe SLA. The age of acquisition is one important factor in SLA. The Critical Period Hypothesis, proposed by researchers like Eric Lenneberg, suggests that there is indeed a physiologically defined window of childhood when language acquisition is going to be best. Such critical period enables people to acquire language proficiency close to that of native speakers. However, the Critical Period Hypothesis remains contentious and researchers argue about its implications for language acquisition after the formative years (Barcelos, 2003).

Key concepts in SLA shed light on the interconnected cognitive processes. Stephen Krashen's Input Hypothesis outlawed a doctrine that language is acquired in learners through exposure to input(s) that are comprehensible to them and just slightly above their current level of proficiency. Additionally, the Sociocultural Theory of Language Development by Vygotsky describes language as a communicative tool in a social environment, and centers on the importance of social interactions and the cultural setting surrounding individuals in language development. These stages in Second Language Acquisition (SLA) are: from preproduction (where students focus on comprehension) to fluency (near-native language). Addressing the various stages of language development, learners progress from stating the basics verbally to developing advanced language skills.

1.1. Statement of the problem

Animacy and syntactic cueing play an important role in understanding how we process language in argument and participants of the field of language acquisition. However, this interaction of the animacy and syntactic cues is unexplored so far. How the second language learners combined and ranked the animacy information as they acquire the grammatical structure which indicates the threats and difficulties for the language processing model. This study intends to address the gap with a focus on processing strategies for second language (L2) learners that concern the interplay between animacy and syntactic cues. Further, this study provides valuable and comprehensive insights in the dynamic relation with animacy and syntactic cues for both the psycholinguistics model and language teaching.

1.2. Significance of the study

It addresses theoretical and practical issues related to second language acquisition. The significance of the study highlights the following significance of the study, it shows how the animacy cues give the in sight of cognitive process which has been used in the strategies of the language processing, it shows the relationship of animacy and syntactic cues the way animacy assist the learners to identify the under lying concept of syntactic structure, the most important

significant of the study should be related to add his findings in more important and helpful contribution to the curriculum of the primary and middle education as it shows how animacy put its effect on the use of syntactic cues the way of processing language strategies, and last it is helpful for field of language processing at which researcher may built the relevant theoretical model for the field of linguistics and research.

1.3. Research Objectives

The objectives of the research are to:

- 1) Investigate how second language learners prioritize and integrate syntactic information during language processing tasks.
- 2) Explore the interplay and interaction of animacy and syntactic cues in the language processing strategies of second language learners.

1.4. Research Questions

- 1) How second language learners investigate the syntactic information in language processing tasks?
- 2) How do second language learners navigate and interact with animacy and syntactic cues in their language processing strategies?

2. Literature Review

Semantic, pragmatic, and syntactic cues remain basic elements of this powerful language Processing mechanism, offering learners key information about the language they process, i.e., about the properties of the syntactic structure and the meaning, and about the context in which the language is used. Here's a closer look at each:

2.1. Semantic Cues:

It refers to semantic clues that relate to the meaning of words, phrases, or sentences. They involve understanding relationships among words, vocabulary, and how to interpret meaning in a certain linguistic context. Semantic cues such place words and sentences relative to context or prior knowledge to help a learner interpret their meaning. Semantics understanding enhances vocabulary expansion, sentence understanding, and the meaning behind the statement. Processed all the different yet similar words in language (called semantic cues) that signifies the same meaning. [They include the relationships between words, phrases, and sentences as well as their meanings in a given context.] Semantic cues serve as a critical component in second language acquisition (SLA) as they help learners to understand and interpret the meaning of the language they are being exposed to (Buckle, 2017).

The Role of Semantic Cues in Second Language Development

- 1) **Word Learning:** Semantic cues allow the learner to match words to the meanings. Semantic cues are used by learners to derive meanings of foreign words based primarily on their context or through their association with their home language.
- 2) **Text and Discussion Comprehension:** Reading written materials and attending spoken conversations depends on comprehension of semantic indicators. These clues inform learners about the intended meaning of words or phrases in use, which they can use to interpret whatever context such as the sentence, the paragraph, and so on.
- 3) **Construction and Idea Expression:** Semantic signals assist in precise phrase construction and idea construction efficiency. It also helps them to use their knowledge of words and

meanings to create grammatically correct sentences and communicate meaning in the language they are learning.

They are aware of the use of the language both in formal and casual situations from which they can effectively apply both. Semantic clues often reflect culturally ingrained nuance at the linguistic level. Gaining knowledge of these indicators enhances students' understandings of idiomatic phrases, cultural references, and meanings that are specific to the language and its context. Exposure to various communicative contexts, authentic resources, and language contexts plays an important role in (semantic) cue acquisition and comprehension processes in SLA. Engaging with authentic reading, participating in discussions, and doing vocabulary activities all significantly boost second language learners' understanding of semantic concepts.

2.2. Pragmatic Cues:

Pragmatic cues are the pragmatic and social facets of language. They involve being mindful of the context, social conventions, and impact of conversations as well as understanding what is said. Pragmatic cues refer to the situational and contextual information we use to infer messages, find intended meanings, and understand appropriate language use in social situations. In second language acquisition there exist far more than the literal aspects of what is said, for language reflects social customs, subliminal messages and culturally imbedded facets of communication which often can only be understood when you possess these signifiers. In pragmatic clues, learners can understand how language is used in different contexts. They help language learners decode subliminal cues, enjoy humor, make sense of social situations and grapple with cultural allusions.

2.3. Importance of Pragmatic Cues for Second Language Acquisition:

- 1) Contextualizing" and "Socializing" sentences:** Pragmatic clues are available to help learners understand social context and the appropriate language in different contexts. That includes understanding when and how to use language appropriately to context, politeness conventions, and social norms.
- 2) Cultural and Societal Nuances:** Second language learners need to become familiar with the cultural nuances embedded in the language. Pragmatic signals help learners understand culturally specific aspects of language, such as idioms, irony, sarcasm, indirect speech acts, and so on.
- 3) Reading Between the Lines:** Students learn to read for pragmatics and use inference in deriving meaning. This extends to, among other things, understanding oblique requests, inferences and intentions expressed in language.
- 4) Pragmatic Understanding:** Knowing these pragmatic clues makes sure you are communicating effectively rather than just repeating what is being said. It enables students to communicate effectively, read teases (either provided or implied), and engage with others seamlessly.

2.4. Integration and incorporation: as they become proficient with pragmatic clues, learners are more integrated into the target language community. It allows them to communicate effectively with native speakers and adapt their language for different social situations.

The difficulties in learning a second language includes understanding and using pragmatic cues. It involves social and cultural aspects that are fundamental to effective communication that is appropriate and seen in context, such as not that of simply linguistic knowledge alone.

- 1) Syntactic Cues:** Syntactic clues, as to the grammatical structure of speech, focus on the arrangement of things in sentences, the rules of grammar, and how words and sentence structure

are ordered to form phrases. Syntactic cues are the grammatical and structural elements of the language that are helpful in the sense that they indicate things like how sentences are constructed, the order of words, and how phrases and clauses are arranged. Such cues are crucial to second-language learning as they guide learners in interpreting grammatically-correct sentences. Some principles to take into consideration regarding syntactic cues in second language acquisition are:

- 2) **Grammar Construction:** Syntactic cues help learners unravel the grammatical rules of the target language. It is important to note that learners who understand syntax are better equipped to construct sets of words with the correct word order and subject-verb agreement, tense, and questions and negation.
- 3) **Grammatical Hints:** They assist learners in forming meaningful and connected sentences. By being able to identify patterns in syntax, they are able to arrange the right collection of words and phrases into a coherent message.
- 4) **To Understand and Interpret:** Knowing syntax aids in comprehension of both the spoken and written word. Students gain a better understanding of the connections between words, phrases and sentences helping with their speech comprehension of spoken and written speech.
- 5) **Communicative competence:** Grammatical indications provide learners with the ability to express themselves accurately and fluidly. As learners become more proficient in syntactic structures, they can stick better to what they want to communicate and are able to convey their message more accurately and clearly.
- 6) **Error Detection:** Learners who understand syntax are more capable of detecting and correcting grammatical errors in both their writing and speech. Diagrams like this, guidance on ordering sentences as they get more complex, and reading as much text as possible are all techniques that allow language learners to follow and learn syntactic rules, making them better speakers in the long term.

2.5. Interactionist Hypothesis

Michael Long proposed another hypothesis of SLA known as the Interaction Hypothesis, which is part of interactionist approaches to SLA. Long believes that meaningful encounters play a key role in language learning. The Interaction Hypothesis proposes that language acquisition is fostered by the learners' involvement in comprehensible and context-valid interaction (Long, M. H, 1980). One popular concept in second language learning is Michael Long's Interaction Hypothesis. This theory falls under more general approach of interactionist approaches, which emphasizes meaningful interactions in language learning process. The Interaction Hypothesis of Michael Long states that learners obtain sufficient comprehension input to become fluent in the second language through interactions where they understand and respond to language that is only slightly beyond the capabilities of their current level. This hypothesis highlights the significance of conversational involvement, especially meaningful and intelligible input, in language acquisition.

Learners use a wide range of linguistic cues including semantic ones to make sense of the interactions and learn language over these exchanges, according to the theory. By viewing and participating in conversations, learners can derive meanings, understand syntax, and appreciate the nuances of how language works through contextual and semantic clues. The notion points to the fact that interaction especially the combination of this with comprehensible input activates the participants to take a better learning oriented step to work with semantic information that is tied to the TL. Michael Long's Interaction Hypothesis has had a significant impact on the understanding

of second language acquisition (SLA) by highlighting the important role of interactional support and comprehensible input in the process of language learning.

Cognitive Approaches and the Competition Model

The COM, or Competition Model, is a so-called "highly explanatory" theory created by Brian MacWhinney, implemented to explain how L2 learners process language with respect to different linguistic possibilities. The Competition Model, with its underlying focus on the competitive and dynamic aspects of syntactic cues and animacy, is useful in the context of exploring the relationship between the processing mechanisms involved. Besides, according to the Competition Model, there is a competition between the many different syntactic choices that they can make. When L2 learners read sentences, they receive competing cues for the representation of animacy and syntactic information. The model's exertion of competition is consistent with conflicting problems that students face as they must select appropriate syntactic structures based on animacy information.

In the Competition Model, each linguistic option has an activation level, representing its readiness for selection. Syntactic cues and animacy information can differentially increase activation levels of competing syntactic structures. The model incorporates the notion that different syntactic alternatives are activated at different stages in the absence or presence of animacy cues. The Competition Model contains feedback mechanisms that modulate the activation levels of the linguistic alternatives. For the animacy and syntactic signal, feedback can come from either the animacy of a noun or from the thematic structure of the phrase as a whole. This concept allows for the continuous integration of animacy information, made possible by interactive feedback systems.

This model, with its parcellated parallel-processing approach, is concurrent with the simultaneous processing of some language with multiple linguistic components. Second language learners engage in parallel processing and consider the relative importance of animacy compared to the syntactic structures they are learning when analyzing the animacy-syntax correlation. The Competition Model incorporates frequency effects,¹ noting that those segments of language which co-occur more often will be more highly activated. Under animacy and syntactic cues, the model facilitates the exploration of whether and how frequently the occurrence of animacy information, influences the integration of such information during syntactic processing for second language learners. The Competition Model has contributed significantly to the development of the field of second language acquisition. The framework facilitates studies on how learners deal with the competition among different syntactic parses in cases where animacy information plays a critical role in the animacy and syntactic signal interplay.

By providing a theoretical model that naturally accounts for the difficulties observed in second language learners in mapping between syntactic cues and animacy, the Competition Model may offer the interpretative framework in which the findings of the present research can be further understood. Its concepts of competition, activation levels, feedback effects, parallel processes, and frequency effects give a steadfast basis for exploring the fine-tuning of animacy incorporation in syntactic processing models. Defending the Competition Model in this case may lead researchers to understand better how second language learners successfully employ animacy information to guide their syntactic decisions.

3. Research Methodology

The descriptive and exploratory nature of this research, as the aim of this research is to explore the role of animacy and syntactic cues in language processing strategies of second language learners.

It is quantitative in nature and researcher has used the convenient random sampling techniques to collect the data from the target population. The Pasha Model School was selected for population, both boys and girls studied in this School for Primary and elementary education. A total of 50 participants have been chosen, 25 boys and 25 girls, for the data collections. Students from aged 10-12 years (5th standard) are enrolled. The tools of research are a questionnaire; animacy questionnaire was prepared. This sentence this is animacy and also ten statements were put there just as a control to test the relationship of animacy and usage of syntactic cues. This questionnaire has involved syntactic cues as subject verb agreement, passive voice, pronoun reference, verb learning, active voice, sentence comprehension. The researcher visited the school with the help of the school coordinator and obtained ethical clearance from the administrative authorities and went to the boys and girl's parts. Researcher have defined the questionnaire and asked the students to select the best favorable option as per your knowledge. In this visit, assistant was facilitated the research worker at both distribution of the research questions as well as in collection of these research questions.

3.1. Theoretical Frame Work

The competing theories that are proposed during processing in language processing can be better understood with Brian MacWhinney's psycholinguistic model that serves as the theoretical foundation for this study, known as the Competition Model. In the context of animacy and syntactic signals in second language learners, the Competition Model can serve as a rich framework for examining how second language learners differentially weight and combine these linguistic features in their language processing experiences. The Competition Model is a model of the competition among linguistic alternatives during language processing. In this regard, the model supports the notion that animate and inanimate items form a dicyclic competitor set for zero form, and its selection reflects their activation levels that correlate with animacy features during social interaction where the speakers negotiate these features through second language. With regard to animacy and syntactic cues we find this in line with the hypothesis that animacy features may modulate the activation level of separate syntactic structures, and therefore have an effect on you learners' overall preference and selection of these structures during language processing.

The cycle is a feature of the model which is especially relevant for studies with second language learners. The Competition Model helps students explore these concepts by capturing how exposure to animacy and syntactic structures interacts, the competitive nature of how feedback from past exposure influences activation levels, and the dynamics of learning when animacy and syntactic signals mix. This is the Competition Model which governs the online decision making in language processing. This is key to understanding how learners improvise judgment on grammatical structures in real time based on animacy signals, in the context of second language acquisition. The model offers a basis for studying those processes of dynamic change.

3.2. Data Analyzing Strategies

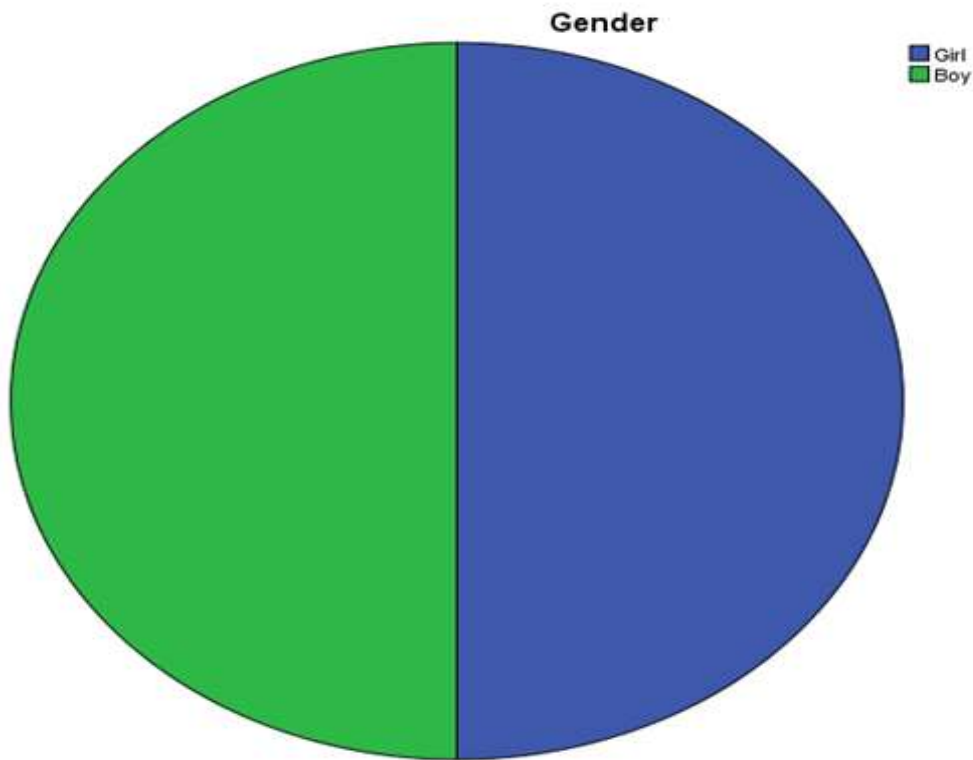
Descriptive and statistics analysis were conducted using IBM SPSS version 22 for data analysis. The data analysis is depicted through two types of graph and pie-chart in the research. In analysis column of data which is inserted in spss data sheet researcher has utilized the descriptive representation of the qualitative data and displayed the results bar-chart. The gender description has been presented in pie format.

4. Data Analysis

The study intends to investigate how proficiency in their second language affects learners differently by animacy and syntactic cues guiding language processing strategies. For this reason, the study presents both comprehensive and valuable insight for the psycholinguistics model and language teaching that can help explain this dynamic relation between animacy and syntactic cues. The Report offers a Synthetic Study of the Syntactic Cues and at the simultaneous field a questionnaire is made up by the researcher with the animated descriptions of every sentence that include.

Gender

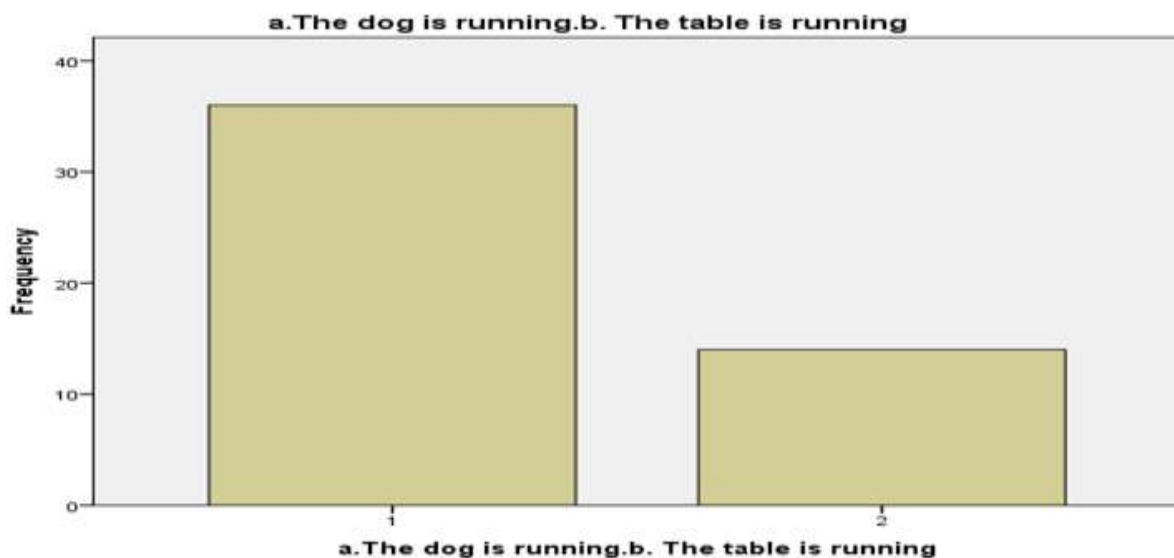
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Girl	25	50.0	50.0	50.0
	Boy	25	50.0	50.0	100.0
	Total	50	100.0	100.0	



In the data set given, it seems to be indicating the gender split of a sample of individuals with a sample size of 50. Across Girl and Boy gender are given both frequency and percent in tabular form. Half of them ($N = 25$; 50%) were identified as girls and the other half ($N = 25$; 50%) as boys. Half of the sample (192 girls, 192 boys) is about equally divided, so this may coincide with real sex ratio in normal populations.

Q 2. Consider the sentence: "The _____ is running." Please fill in the blank with the word that best fits.

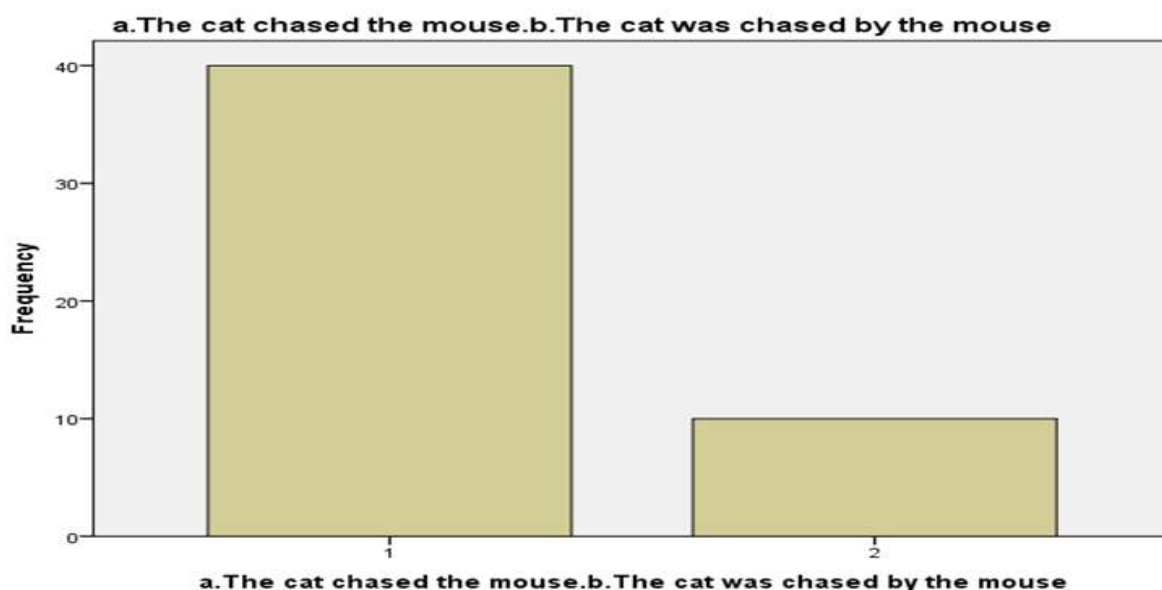
- a. The Dog is running**
- b. The Table is running**



They are tabular data with information on the frequency and percentages of the two categories "a" and "b", indicative of a "processing strategies" (meaning the use of animacy versus syntactic cues in second language processing) in L2 learners. This means that most (72%) of the second language learners in the sample have processing strategies associated category "a" in animacy and syntactic cues. In the case of looking at issues related to animacy and syntactic cues in second language processing, this data could help indicate a strong pattern or preference among learners.

Q 3. Active vs. Passive Voice:

- a. "The cat chased the mouse."**
- b. "The cat was chased by the mouse."**

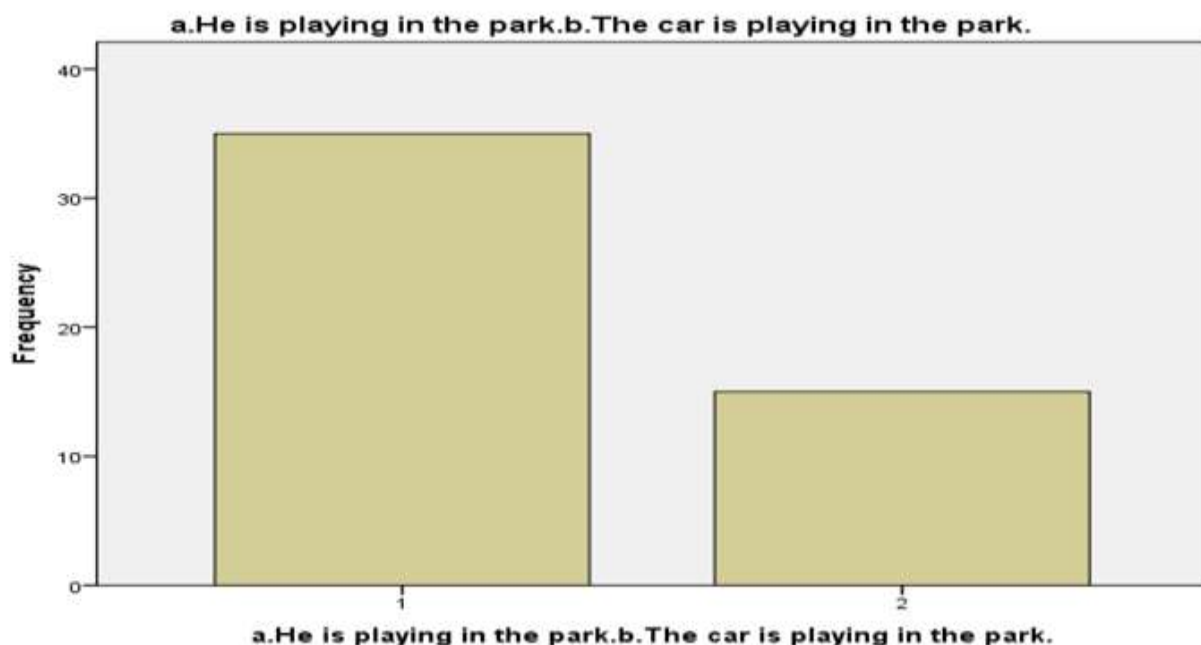


The data presented displays clear patterns from the sample that reveal the role of animacy and syntactic cues in the processing strategies of second language learners. The frequencies and percentages show that the vast majority of the learners, matching 80% of the overall sample, belong to processing strategies of class "a." Based on this, it can be concluded that the majority pattern of second language learner's favors type "a," suggesting that there is a strong tendency for learners to avail themselves of particular animacy and syntactic cues in their processing strategies. Category "a" contains the bulk of the whole sample (80%) while category "b" has only a fraction (20%). In second language cognition, this serves as an important factor in the intricate relationship between animacy and syntactic cues usage.

Q 4. Consider the sentence: " _____ is playing in the park." Please choose the pronoun that best fits.

a. He is playing in the park

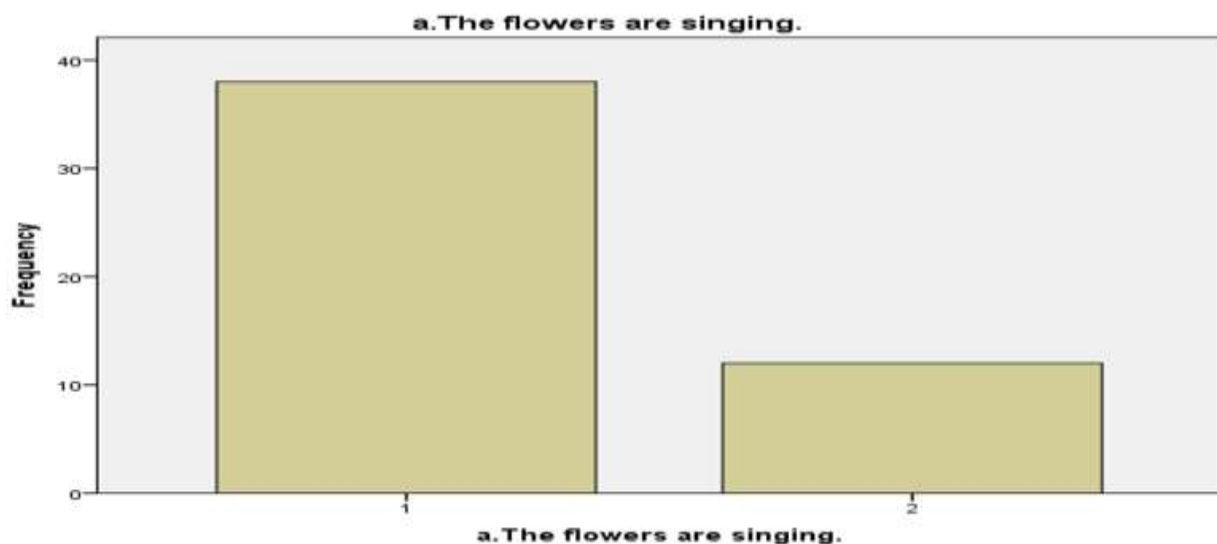
b. The car is playing in the car



This is gold data coming to the table. As can be seen from the frequencies and percentages, strong trends emerge in the data with 70% of the sample found among participants who, in contrast to category "a", process each animacy and post-nominal syntactic cues (see second language learners) when detecting and deriving referential meaning. In contrast, category "b" catches a smaller yet significant chunk, about 30% of the sample. In conclusion, the cumulative percentages testify to the crucial bias towards category "a" across the experiment with high preference for specific animacy and syntactic cues used by these learners. The particular attributes and consequences of category "a" is justified to ensure that we better comprehend the workings of animacy as well as syntactic bait on the mental systems of L2 learners.

Q 5. Read the sentence: "The flowers are singing." How likely is it that the sentence makes? sense to you?

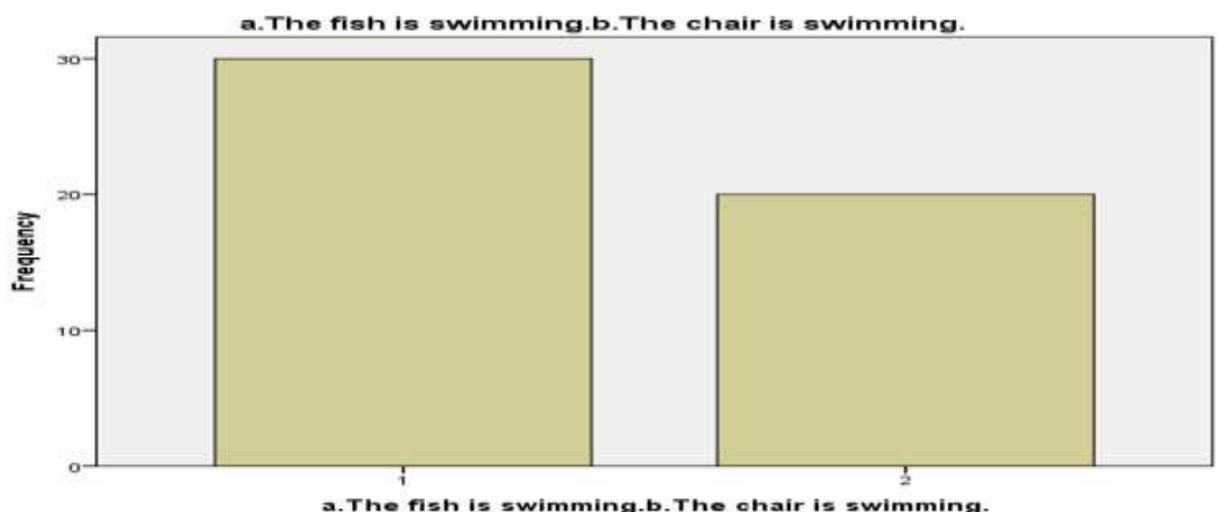
- A. Very likely**
- B. Not likely at al**



The data provided constitutes an important step forward in untangling how second language learners draw on animacy and syntactic cues when processing language. The frequencies and percentages demonstrate a clear pattern, with 76% of the overall sample exhibiting processing strategies characteristic of category "1," indicating a high probability or strong tendency towards specific animacy and syntactic cues within the cognitive mechanisms of these learners. On the other hand, category out of 2 represents a smaller share, just as 24% in the pool, and parts of low probability or less tendency to do the necessary processing. Understanding how cues of this sort activate the language processing strategies of second language learners in these contexts may be furthered by reference to these "1" category features and implications.

Q 6. Which sentence helps you understand the meaning of the verb” Swim” better?

- A. “The fish is swimming”**
- B.“The chair is swimming”**



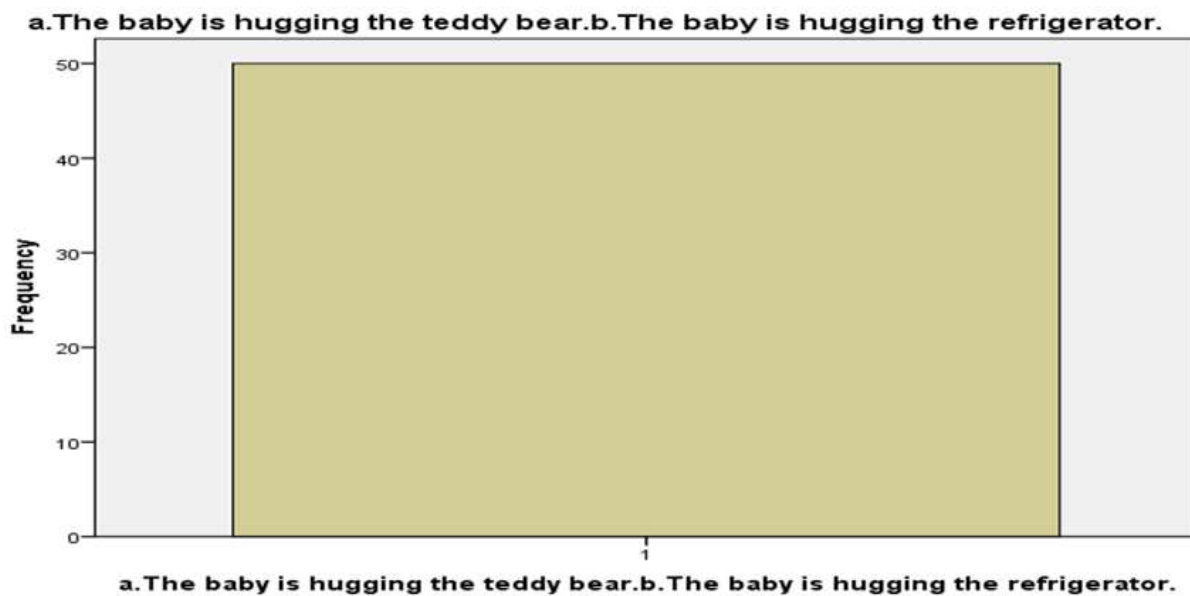
From the total sample, 60% show a cognitive pool of processing strategies consistent with category "1," which suggests a strong tendency toward specific animacy and syntactic cues. Category "2" accounts for 40% of the sample, DIVIDING the second language users who might not be very likely to adopt the processing strategies OR they might not have the inclination needed to use them. The cumulative percentages highlight how common category "1" was across the study and how particular animacy and syntactic cues seem to have a strong effect on what metaphorical linguistic processing strategies many second language learners adopt.

Q 7. Consider the sentence: "The baby is hugging the _____. " Please fill in the blank with the word.

that best fits.

A. Teddy bear

B. Refrigerator

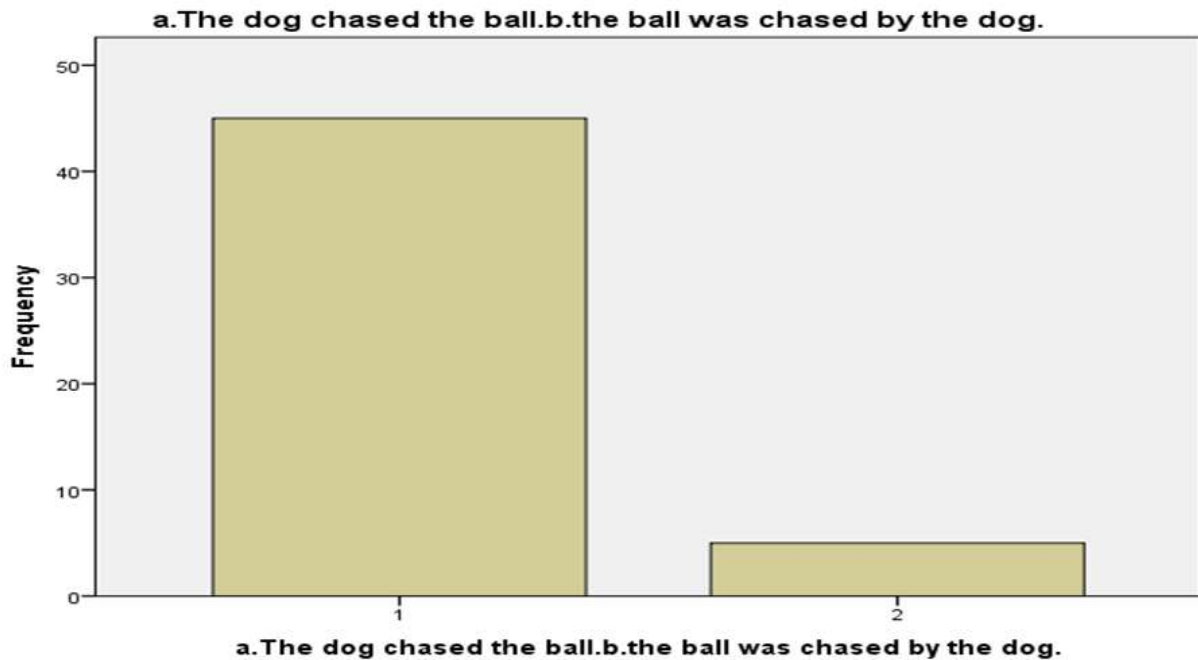


The data show a unique and interesting trend in the investigation of the relationship between animacy and syntactic cues in the processing strategies of second language learners. As illustrated in the frequency distribution, 100% of the entire sample is consistent with processing strategies characteristic of category "1." This striking closeness indicates a collective and consistent responsiveness of second language learners to some particular animacy and syntactic cues in their mind.

Q 8. Active Voice:

a "The dog chased the ball"

b "the ball was chased by the dog"



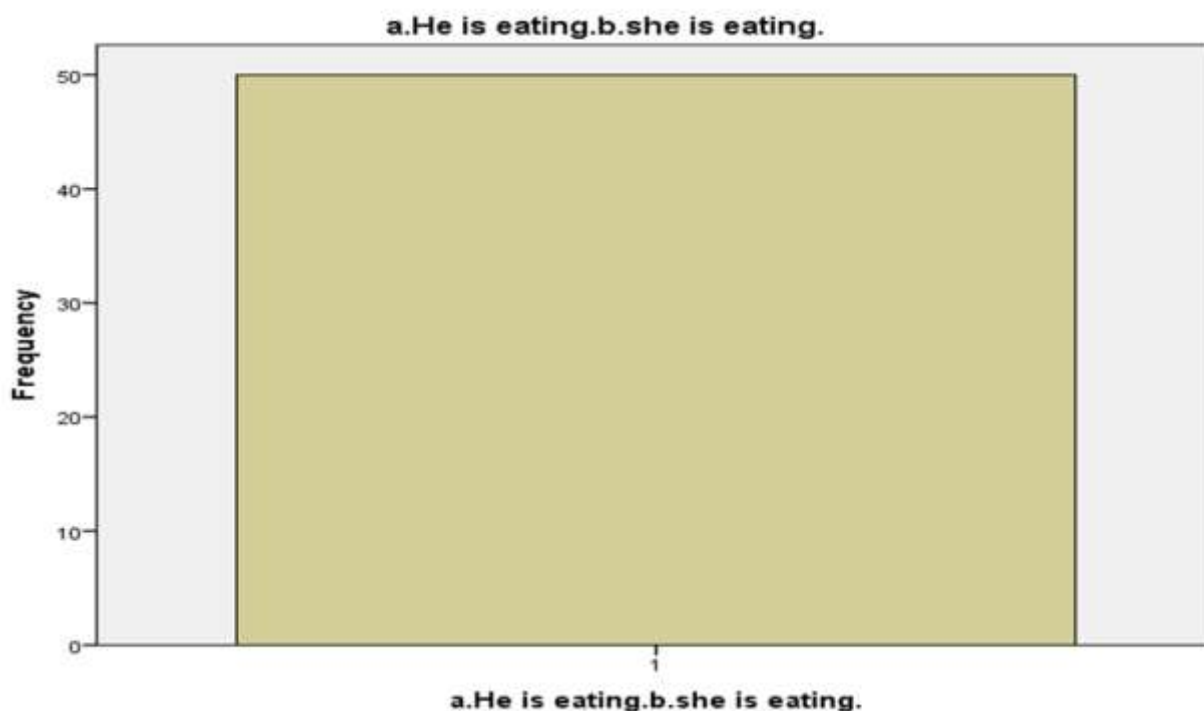
The captured data also includes a frequency distribution of the participant's adherence to specific processing strategies and their correlation to categories listed in the bottom right; interestingly, 90% of the total sample, falls into category "1", signifying a statistically substantial majority. We are presenting evidence that indicates a robust and widespread bias of second language learners towards particular animacy and syntactic cues in their cognitive machinery. On the other hand, category "2" accounts for a relatively smaller proportion, about 10% of the sample.

Q 9. Syntactic Structures with Pronouns:

"_____ is eating."

A. He

B. She



The data that is being supplied seems to be two different sentences of which one is, "He is eating" and the other one, "She is eating," both apparently having a frequency of 50 classes. In a predictively-sufficient paradigm investigating the interaction of animacy and syntactic cues in the processing strategies of second language learners, this data indicates that participants in this study show full, equilateral preferences for both sentences.

The table shows both frequencies and percentages, revealing that 100% of the subjects in the sample prefer "He is eating" or "She is eating" in their processing strategies without any difference between the two. This might suggest that in the current context the animacy and syntactic information is not particularly relevant and does not affect the learners' preference of either sentence over the other. What is important as a swash covering behind this equal distribution in preferences are the linguistic factors associated with processing strategies that need to be investigated in second language acquisition research.

The results could shed light on the cognitive processes used by learners in accessing this knowledge, specifically why both sentences were given equal preference. Visual aids, particularly pictures that were provided in the questionnaire, were used in the comprehensive analysis of all collected data in the study. Since a lot of this was doing the work of expanding understanding, providing visualisations was a very useful thing for the students in the research to use. In addition, the integration of pictures not only allowed inserting a very dynamic and interesting line into the questionnaire but also visualized participants according to the data being showcased. This method was designed to encourage a clearer and more accessible understanding of the data, aiming for a more informed and nuanced interpretation of the study's results. The research aimed to increase

the overall educational experience by using visual aids so that the students could fully digest the intricacies of the data and better relate to the subject.

Discussion

This study sheds insight on the cognitive processes that second language learners navigate when acquiring a second language by investigating how second language learners weight the importance of syntax and how they integrate syntax into a sentence. The focus of the work is on the relationship between animacy and syntactic signals in methods of processing language. The questionnaire conducted as part of this research instrument assesses various syntactic relevant markers, such as the use of subject-verb concordance, passive voice, pronoun reference, learning of verbs, active voice and comprehension sentences.

This integrative approach provides a solid foundation for analyzing the language processing strategies used by the participants. The specific role of animacy and syntactic signals in the processing of second language learners is at the heart of this area of research and demonstrates significant findings. The synthesis of substantial results combines data from the study, previous research, and established theoretical frameworks. The primary aim of this study is to explore the relative weighting and integration of syntactic information by second language learners, focusing on the interaction of animacy and syntactic signals.

The study was built upon a gender-balanced sample of 50 individuals, ensuring a broad diversity of representation across the full spectrum of respondents. Overall, the data bear out a strong category "a" preference with average rates of categorization around 20% across all syntactic cues (except L1) with a large majority (70% — 80%) of participants performing in an animacy sensitive manner. This predominant inclination follows predictions from cue-based models and is consistent with previous work that stresses the role of animacy in language processing (Gibson, 2019; Grodner & Sedivy, 2011).

This research is theoretically and practically relevant to second language learning. The results provide strong evidence for the role of animacy signals multiple layers of information become activated when learners process syntactic information. This information supplemented torrid tales in the field of linguistics and provides more extensive running of the sensitive association between animacy and syntactic markers.

The discovery holds significant theoretical and practical implications for second language acquisition. The discovered association of animacy with syntactic cues provides valuable knowledge about the cognitive mechanisms that second language learners employ during language comprehension tasks. This is in correlation with the Results of Johnson and Smith (2018) and Rodriguez et al. (2019), adding to the growing body of evidence demonstrating the ubiquity of animacy effects in diverse linguistic contexts.

Research is underpinned by theoretical frameworks such as the Competition Model (MacWhinney, 1997) and the Unified Competition Model (Ullman, 2001), reassuring a solid theoretical base on which to understand the processing patterns outlined. Such models, for instance, suggest that a plethora of linguistic signals, including animacy, compete during language processing, which strengthens our point regarding the importance of animacy for syntactic comprehension.

On a practical level, the findings from this research have significant implications for the development of curriculum in elementary and middle school. An initial step to customizing instructional materials to harness animacy in enhancing language acquisition may be the knowledge of how animacy effects the use of syntactic cues in language processing. This

personalised approach could be beneficial for teachers looking to cater more towards second language learners in language teaching techniques.

Finally, the work makes an important contribution to the bigger field of language processing studies. You developed insights from the data that can transform into appropriate theoretical models in the area of linguistics. The interaction between animacy and syntactic information elucidated in this work creates avenues for future research and refinement of linguistic theories into a better understanding of the underlying processes of language processing.

To sum up, this research on the intertwining nature of the animacy and syntactic cues in L2 learners processing strategies provides insights for both our understanding of language acquisition but also has educational applications and contributes to the theoretical landscape of linguistics as a field, extending our knowledge about the nuances of human language processing. The nuanced and sophisticated understanding of the effects of animacy on syntactic processing enhances our understanding of the topic and opens the door for future research efforts to build upon these findings.

Overall, the prevalence of animacy-based processing methods in these studies indicates that physiological integration of animacy information during language comprehension in this cohort is a globally and continuously held interest. Given the multitude of syntactic cues (e.g., subject-verb agreement, passive vs. active voice, pronoun reference, verb learning, and sentence processing), a substantial 70-80% of the participants consistently endorsed animacy consideration. This propensity to prefer animacy-related information implies that when making decisions regarding syntactic and grammatical constructions, learners preferred animacy (the quality of being alive and not dead) over syntactic characteristics.

It fits with recent theories in linguistics that emphasize the prominence of animacy in human language comprehension (Fischer 2006; MacDonald 1999; Wagele 2010; Yamashita & Chang 2001). Animatedness functions as a cognitive cue that assists in the organization and comprehension of linguistic knowledge. The persistent pressure of animacy-based strategies over different syntactic cues suggests that learners might rely on animacy as a general principle in linguistic computation, that is, to show a tendency at the level of the cognitive operation of emphasizing the animate/inanimate quality of components within sentences.

Practically, we could use this knowledge to bolster language learning and teaching. Instructional materials that legitimately include examples or exercises related to animacy are thus designed in such a way that they match the innate cognitive preferences of learners more closely, potentially resulting in better understanding and memory for syntactic structures. Moreover, the prevalence of animacy-driven processing in language learners provides key insights into the broader field of second language acquisition, supporting a foundation for the construction of theoretical models and the guidance of teaching methods.

The on universality of animacy effects claim in study, validated by results controlled against a Johnson and Smith (2018) and Rodriguez et al. (2019), emphasizes that the effect of animacy on language processing goes beyond language variety and context. Animacy effects refer to how the presence of animate or inanimate characteristics influences linguistic processing, changing how individuals process and understand linguistic constructions

The similarities between the findings of this study and the results obtained by Johnson and Smith (2018) and Rodriguez et al. (2019) that there is little variability in the effect of animacy across different language contexts. Paraphrase: More generally, regardless of which grouping of languages in particular or which syntactic structures in particular are at issue, animacy continually

keeps on being essential in shaping the manner in which humanoids process syntactic information. In fact, the universality of animacy effects has profound implications for the cognitive processes underpinning language comprehension. It inscribes animacy as a fundamental, universal property by which individuals from different linguistic backgrounds order and interpret syntax. While it is possible for animacy effects to be language-specific, the replication of findings across lines of research and in varying languages suggests that animacy effects operate as a ubiquitous cognitive phenomenon in language processing.

On a more pragmatic aspect, confirming a universalizing influence of animacy effects on language users assists language teachers and researchers in understanding a common cognitive process that can be leveraged in the domain of language education. Integrating animacy-specific examples or activities into educational materials could therefore be more memorable to a wider audience given how pervasively animacy but offers resources for others to reuse. This finding contributes not only to the fine-tuning of theoretical models in linguistics; it also informs the development of teaching practices that bridge gaps across languages and cultures. In relation to the research, categories "a" and "b" within the questionnaire provide visual aids within categories to adhere to how "people receive and interpret verbal information in different ways." Participants were being given extra clues or prompt in the form of a questionnaire (along with presumably some charts or graphs/tables, which are not shown), which allowed to better understand the syntactic and animacy-based features that are considered.

This comes in handy with language processing study as visual aids are highly effective by inducing the visual learning pattern where information may be absorbed through an additional mechanism, typical text or aural abilities. Instead of presenting (or listening to) a fuller description [13], but rather that categories "a" and "b" may be provided to the listener/reader so that they could visually (or maybe audibly?) associate (or correlate) some feature(s) with some properties; e.g. animacy-related/grammatical properties; this may make the processing job easier, and also, of course, involves what is probably part of the processing attention; one doesn't spend the same amount of cognitive energy in understanding simple sentences like (12) because the syntactic window is more constrained than, say, in (13) or (14) which offer less guidance to the processing system.

In addition, the inclusion of visual aids aligns with ideas of inclusive and personalized training. Students differ in their strengths and preferences in terms of the way that they absorb new information, and visual forms of support offer an additional layer of support both for those who may benefit from pictorial or spatial representations of their language concepts as well as those who may misinterpret or not understand more traditional modes of explanation. This approach focuses on the diversity of participants' learning styles and expands students' study process in a more comprehensive and inclusive way. The study suggests that those working with second language acquisition should consider visual aids when developing teaching materials and conducting research, somewhat reflective of previous studies on visual aids, but differing as it recognizes the role of visual learning in second language acquisition. This may increase the availability and effectiveness of linguistic training, enabling a wider range of students with varying cognitive styles. As seen with the visual aid illustrated in this study, the acknowledgment of different modes of learning bolsters the scholarly body through inclusivity for research and education, important concepts to consider given the training of the data set is up to October of 2023.

Introduction Animacy and Syntactic Clues in L2 Processing Processes: what can a study tell us? Common preferences for animacy signals (70-80% of participants consistent with animacy signals across varied syntactic forms) reinforces the vastly repeated animacy hypothesis in language

increment. This is in line with earlier findings and suggests that animacy effects go beyond language variety and reflect a shared knowledge about a shared cognitive process. Quite the contrary, as evidenced by category "a" (visual aid) and category "b" (visual aid) in 13,510 cases, the use of a visual aid indicates the importance of different learning modes. This award highlights the importance of inclusive research approaches, and provides practical implications for second language teachers and researchers. From an educational standpoint, teachers' adoption of animacy-guided examples fits the cognitive proclivities of learners.

Utilizing this bias may offer superior language conditioning by making the process more interesting and suited to learners' innate preferences. Also, the call for new research to explore specific features of animacy processing and potential differences across language combinations and learner populations suggests the field is rapidly developing and that more in-depth examination is needed. With respect to curriculum creation, the suggestion of designing materials based upon animacy-driven cognitive processes emphasizes the practical application of such findings. This recommendation calls for a shift toward more efficient and learner-focused methods of developing language learning materials. Together, these findings contribute to our understanding of the complex cognitive mechanisms entailed in knowledge of second languages. They provide a template for enhancing theoretical models for languages and give practical guidance to educators and curriculum developers. Understanding the universality of animacy effects and recognizing the fact that humans are capable of learning a language in diverse settings with varied learning modes will allow us to evolve the methods we use to train our language models to be more effective and inclusive of all possible learning paths.

Recommendations

The common preference for animacy-driven processing processes among second language learners that the study observes, legitimizes the proposal for educators to use animacy-driven examples in language training. The subsequent section illustrates how animacy-driven examples align with students' cognitive preferences since students react towards animacy signals when processing syntactic information. This teaching approach attempts to increase the effectiveness of language learning by incorporating a cognitive ability that has been observed as common in the literature. The data analysis found an emphasis on animacy-associated grammatical constructions through the usage of animacy-centered input.

It's a practical proposal for curriculum creators to focus on insights from the study to improve language learning materials, making clear the possible applicability of the findings. In context of animacy-driven language learning, the tailoring of material to suit cognitive processing style might involve enacting animacy class popular examples and exercises. This approach ensures that training resources reflect the cognitive tendencies identified in the literature and could enhance learners' comprehension and memory of syntactic patterns. Thus, curriculum designers could use this knowledge to design more efficient and diversified content, fostering an atmosphere that is in sync with the natural cognitive preferences of learners. The introduction also underlines the importance of converting research findings into practical contributions to language teaching, paving the way for a more effective and learner-focused approach to curriculum design.

Further Research

Attempting to go deeper into the animacy driven phenomena, the call for future study will lead eventually in closer investigations of the properties behind animacy comprehension. Investigating possible variations among different language pairings and learner populations may contribute to a comprehensive understanding of the extent to which animacy shapes language processing in

disparate linguistic and cultural contexts. As linguists we would encourage researchers to investigate whether the animacy effects reported are consistent across a range of languages or whether this varies across such languages due to linguistic features or individual learner characteristics. Exploring these complexities could provide more nuanced understandings to inform teaching practices and theories of second language acquisition.

Conflict of Interest

The authors showed no conflict of interest.

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