

## NOUN TAXONOMY IN LITERARY DISCOURSE: A SYSTEMIC FUNCTIONAL ANALYSIS OF CHILDREN'S VS. ADULT LITERATURE

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### ABSTRACT

*This study explores the distributional patterns and functional importance of noun and its kinds in children's and adult literature, adopting a corpus-based quantitative methodology supported by Systemic Functional Grammar (SFG) analysis. The study Analyzes 99,852 common nouns in children's literature in comparison with 98,597 common nouns in adult literature, beside, systematic differences in concrete, uncountable nouns, compound, collective and, this study finds pedagogically important differentiation in discourse creation. The findings of the research investigate those children's literature possess excessive usage of concrete and collective nouns (38,881 and 24,901 occurrences respectively), supporting intangible convenience and societal learning. On the contrary, adult literature displays high frequency of abstract nouns (12,671) and uncountable noun (3,769), which supports intricate ideational connotation. Systemic Functional Grammar investigation explores that these distributions of noun function evidently within transitivity systems, nominal groups, and theme-rheme structures, encoding different pedagogical rationale. The study is significant for to literacy pedagogy by signifying they way noun categorization constructs discourse registers particular to developmental readiness and cognitive intricacy, with proposition for curriculum planning, text selection, and unambiguous grammar teaching.*

*Keywords: Noun classification, systemic functional grammar, children's corpora, adult corpora, corpus linguistics, discourse analysis, pedagogical proposition*

### 1. INTRODUCTION

The usage of language varies from one form of literature from the other. Among them, a significant example is the selection of nouns. This choice of noun words is for the sake of suitability between children's literature and adult literature. Most of the studies evaluate the vocabulary of children, ignoring the fact that how nouns influence and shape the language. This gap needs to be filled since grammar as well as vocabulary effects how the text will be perceived or conceived between readers of different age. The literature of both ages goes beyond the selection of nouns. There's also a difference of meanings. The children's literature emphasizes on concrete, tangible nouns — nouns that describe persons or places: dog, house, and mother. Whereas the adult literature uses abstract versions — justice, consciousness, ambiguity. Because these versions of nouns usually explain ideas, they require readers to ponder on the carefully. The noun difference is considered a feature because it distinguishes between a children's literature and an adult literature. They may also be useful for tutors to curate accurate reading material and enhance instructions on literacy.

Notwithstanding wide-ranging research on vocabulary simplification in children's literature (Nation, 2001; Biber & Reppen, 2002), the structural function of noun categorization—their distributional patterns and functional characteristics found uninvestigated in pedagogical linguistics. This gap is predominantly important specified the growing acknowledgment that grammatical complexity, not only lexical occurrence, differentiates literary registers and

facilities reading comprehension trajectory (Halliday & Matthiessen, 2014). This research offers an inclusive corpus-based investigation of 202,449 Noun tokens across seven grammatical and semantic categories.

### Research Questions:

1. What distributional patterns characterize diverse noun categories in selected children's and adult corpora?
2. How do these distributional patterns show a relationship with principles of discourse recognized in Systemic Functional Grammar?
3. What are the pedagogical impacts of these patterns on reading instruction and text selection?

## 1. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Noun categorization has significant importance in descriptive and pedagogical grammar ever since the traditional division between common and proper nouns (Quirk et al., 1985; Huddleston & Pullum, 2002). Modern corpus linguistics has facilitated more complex exploration of how nouns function varies across discourse situation. Biber (1988) states that frequencies of noun show a relationship with register distinction, with written academic discourse demonstrating higher noun frequency than spoken registers. This preliminary approach encouraged inquiry into whether literary registers in the same way regulate noun selection.

The specificity division in children's literature has been recognized by Hutson (2002) and De Jong & Bus (2004), who documented those early literacy texts, adopt higher density of concrete nouns to create semantic lucidity. Nonetheless, this research emphasizes on lexical frequency rather than grammatical characteristics of nouns. Systemic Functional Grammar (SFG), propounded by Halliday (1994, 2014), provides a theoretical framework for study the ways of selection of noun comprehend experiential (ideational) meaning at the lexico-grammatical level.

Systemic Functional Grammar says nouns are not mere parts of speech; they significantly help curate a meaning in a sentence (Halliday & Matthiessen, 2014). The usage of abstract nouns — freedom, complexity — provides writers the opportunity to present information-rich content in a compact form (Ravelli, 1988). To present a vivid picture for a child to understand, concrete nouns are utilized because they easily describe people, objects and easily recognizable things. Words like "family", "committee" are collective nouns because they refer to groups or collectivity of discrete things. It's this feature that distinguishes how selection of nouns shape meaning, not simply the words used.

This has been assessed in recent research conducted by Recent work by Macken-Horarik & Isaac (2014) and Christie (2012) on SFG-informed on literacy that is based on Systemic Functional Grammar that not only grammatical selections, but also the selection of abstract nouns and nominalization build meaning that is comprehensive and meaningful for students on awareness of language. It's a pattern, refer the past research that how nouns and their types differ from one literary register to the other and so on, explaining that this difference is a pattern, premeditated, predetermined.

## 3. METHODOLOGY

### 3.1 Research Design and Corpus Composition

This research adopts a mixed-methods design combining quantitative corpus analysis with qualitative SFG elucidation. The corpus encompasses around 1.2 million words distributed across two comparable sub-corpora: (1) children's literature (n=600,000 words) from texts appropriate for ages 6-10, including award-winning narrative fiction; and (2) adult literature

(n=600,000 words) from published novels in realistic and literary fiction genres. Sub-corpora were balanced for genre (narrative fiction) to isolate register effects from genre effects.

### 3.2 Quantitative Methodology: Corpus-Based Analysis

Nouns were selected by means of automatic part-of-speech tagging (Python NLTK with manual verification of 2,000 tokens for precision; Cohen's  $\kappa = 0.94$ ). Seven noun categories were categorized according to semantic and morpho-syntactic properties:

1. Abstract nouns: lacking physical referents (justice, idea, freedom)
2. Collective nouns: denoting bounded groups (family, committee, team)
3. Concrete nouns: physically referential (dog, house, book)
4. Compound nouns: multiword nominal units (school bus, police officer)
5. Collective nouns: set-denoting pluralities (audience, clergy)
6. Possessive nouns: genitive-marked nominals (Mary's, the king's)
7. Uncountable nouns: mass/non-discrete reference (water, information, beauty)

Raw frequencies were normalized to per-10,000-word rates (pmw) to account for subcorpus size differences. Chi-square tests assessed distributional importance ( $\alpha=0.05$ ). Effect sizes (Cramér's V) quantified practical significance.

### 3.3 Qualitative Methodology: Systemic Functional Analysis

The research deals with Stratified purposive sampling chose 150 occurrence lines per class for fine-grained investigation. SFG elucidation investigates: (a) function of Noun within nominal group structure (Halliday & Matthiessen, 2014); (b) function of Noun in transitivity systems as actors, goals, and beneficiaries; (c) status of Noun within theme-rheme information distribution (Bloor & Bloor, 2004). Analysis recognized the way noun classes create real-world examples of registers through their contribution to lexico-grammatical density, nominalization patterns, and ideationally complex clause structures.

## 4. DATA ANALYSIS AND DISTRIBUTIONAL PATTERNS

### 4.1 Overall Distributional Patterns: Comparative Analysis

| Noun Type              | Children's<br>(Freq.) | Lit. | Adult<br>(Freq.) | Lit. | Difference          | $\chi^2 / V$           |
|------------------------|-----------------------|------|------------------|------|---------------------|------------------------|
| Abstract               | 9,036                 |      | 12,671           |      | +3,635<br>(↑40.2%)  | $\chi^2=1,847.3^{***}$ |
| Collective             | 1,277                 |      | 1,151            |      | -126 (↓9.9%)        | $\chi^2=43.2^{***}$    |
| Concrete               | 99,852                |      | 98,597           |      | -1,255 (↓1.3%)      | $\chi^2=8.9^{**}$      |
| Compound               | 24,901                |      | 25,978           |      | +1,077 (↑4.3%)      | $\chi^2=127.4^{***}$   |
| Concrete<br>(repeated) | 38,881                |      | 39,436           |      | +555 (↑1.4%)        | $\chi^2=12.4^{**}$     |
| Possessive             | 1,332                 |      | 2,065            |      | +733 (↑55.0%)       | $\chi^2=342.8^{***}$   |
| Uncountable            | 1,000                 |      | 3,769            |      | +2,769<br>(↑276.9%) | $\chi^2=4,821.6^{***}$ |

Note: \*\*\*  $p<.001$ , \*\*  $p<.01$ . V values range from 0.31-0.48, indicating moderate to strong effect sizes (Cohen, 1988). Data normalized to per-10,000-word rates for comparable analysis.

The basic quantitative results are summarized in Table 1. In uncountable nouns, the contrasts are the most prominent: in 276.9% of the tokens, uncountable nouns are used more in adult

literature (3769 tokens as compared to 1000 tokens). This dramatic contrast is due to the adult discourse's use of mass reference categories such as "information," "technology," "evidence," "time," "experience. This distribution is very different from the chance distribution and the results of a chi-square analysis confirm that, with a Cramér's  $V=0.48$  this is a strong effect size ( $\chi^2=4,821.6$ ,  $p<.001$ ). Yet abstract nouns, which are actually more common in texts for adults, do not follow such a proportional pattern with respect to their number; adults use 40.2% more abstract nouns for every 100 texts than children do but that is still a relatively lesser increase than the uncountable increase.

Possessive nouns were also more common in registers in adult literature of narratives, with an increase of 55.0% (2 065 vs. 1 332), in keeping with increased use of genitive syntax in adult literature to stand for an ownership relation, it is common to see, gentle/family ascendant (the king's authority) and genealogy (society's needs). Children's texts, on the other hand, emphasize the concrete nouns (99,852 children's, 98,597 adult), while the functional differences lie in a lack of focus in the children's texts (Section 4.2). The distribution in the horizontal frequency shows procedures specific to the different registers; the children's literature is associated with a participative and concrete nominal reference, relating the narrator to the characters in the text, while the adult's literature is related to a denotable and nominalized nominal reference, in which the narrator is abstract and seen as an authority on the world.

This is a test comparing the performance of two different types of neural network architectures: Category 4.2: Semantic and Functional Patterns.

## **4.2 Category-Specific Analysis: Semantic and Functional Patterns**

### **4.2.1 Abstract Nouns and Ideational Complexity**

#### **4.1 Abstract Nouns and Ideational Complexity: II Abstract nouns occur in closer collocations with the verbs form and become.**

In SFG terms scale of the noun is different: Abstract noun is Process-nominalization and Quality-nominalization in which experiential meaning is packaged in to the nominal structures shifted to rank (Halliday & Matthiessen, 2014). We analyzed 150 concordance lines from adult literature that reveals three functional subtypes:

The mental process nominalizations (realization, understanding, belief): 47 examples. Such nominalizations make the internal roles of the clause sense and Phenomenon into objectified roles, as in the example "Her belief that the universe held purpose..." where the internal roles "she believed" become felt as the one role "belief".

Material Process nominalizations (construction, creation, destruction): 56. These are doing into nominals (agent-action compression): The destruction of the city compresses the idea of They destroyed the city to a single process-nominal that corresponds to the participant of the sentence, in this case, the destruction.

There were 47 nominalizations for the concept of quality/value (e.g., justice, freedom, complexity). These evoke abstract features as a social act that could be discussed or even judged apart from a clause.

These subtypes (12 Mental Process, 18 Material Process, and 11 Quality nominalizations) were found in significantly smaller proportions in children's literature (in comparison, the sample of language in children's literature in similar proportions). SFG analysis shows that adult discourse exemplifies greater ideational density (Halliday, 1989), the latter having nominalizations to form nominal group structures tightly packed as they add qualifiers (premodifiers and postmodifiers), while the former shows less flatter nominal structures with fewer qualifiers.



#### 4.2.2 Concrete Nouns and Referential Transparency

Concrete nouns distribute differently in their domains, although their frequencies seem quite similar, 99,852 children's and 98,597 adults. A qualitative analysis of 150 concordances showed that the children literature focuses on objects from the immediate environment and from the household domain of children ("house", "door", "table", "school") and on human and animal agents ("boy", "girl", "dog", "cat"). The type-token ratio of concrete nouns in children's writings was 1:47; and 1:19 for adult writings suggesting high level of repeated reference to concrete nouns and high level of diverse reference and reference diversity in adults' writings.

In a transitivity-based perspective, concrete nouns are the most common elements in children's texts being located in the Actor role in Material processes (81% of sample), allowing the working and fixed agent-action link: "The boy ran." "The dog barked." The distribution of concrete nouns associated with participant roles is more variable across participant roles in the adult texts: 34% of the concrete nouns are Actors, 41% of concrete nouns are Goals, 18% of concrete nouns are Beneficiaries/Locatives, and 7% are in prepositional phrases. This distribution allows for more complicated transitivity systems with concrete nouns that are the focus of action by abstract verbs (Fear seized the man) and/or multi-step action sequences ("Fear gripped the man")

#### 4.2.3 Compound Nouns and Lexico-grammatical Compaction

The further the students advance in their studies, the more often they will be exposed to compound nouns and to lexico-grammatical compaction.

Overall, compound-nouns demonstrate little register variation (24,901 children's vs. 25,978 adult) but some functional differences are clear (32,838 prominent, vs. 6,552 minor). The children's compounds focus on simple semantically compositional combinations of morphemes that have a visually imaginable representation, such as 'bedroom' and 'schoolbus' and 'daytime'. Abstract-anchored and compounds with greater numbers of opaque/metaphoric parts such as "minefield," "stalemate," or "breaking point" constitute larger percentages of adult compounds. In number, children's literature included 127 different transparent compounds (e.g. "kitchen", "backyard") and adult literature had 31 such compounds in like-sized samples, but 156 opaque/abstract-anchored compounds compared to 8 in children's literature.

In the nominal group structure, the children's compounds are generally in the following form: "the bedroom," in which there is little modification of the Head nouns. The adult text use includes compounding as Heads in complex nominals (the "calculated" mind of the prosecutor). This is an important way to attain lexicogrammatical density of compounding in order to retain the noun-centered structure for adults and ensure the preservation of semantic content.

#### 4.2.4 Collective and Uncountable Nouns: Mass vs. Discrete Reference

If anything, there is less register variation for collective nouns than for other terminology (1,277 children's vs 1,151 adult) but an analysis of their functions shows that they are deployed in different ways. Collectives are used to spread participants in the social hierarchy in both registers, but they are more used in establishing experiential aspects of abstract processes with adults, such as "The committees were divided in their opinions" (where the meaning of plural is contrasted with the grammatical form of the singular). Collectives are used mainly for simple reference (i.e. the family ate dinner) in children's texts.

The nouns that have an 'uncountable' form show the greatest register variation (three times as many children's, 1,000, compared with adult, 3,769; 276.9% increase). This is related to the basics of the conceptualization of reality, which, according to the registers, is the same for all

but different for each. The emphasis in children's literature is on the discrete, countable participants in a game to which they refer, which creates 'enumerable boundaries' and 'stable referents'. The mass reference in adult literature is not easily partitioned – access to "information" (available to and by anyone); technological "advancement" (advances occur with no one noticing; "information" is always current); social "pressure" (as "there" in the social stories); the "temporal flow" (as "there" in the stories of time). By observing adult transcripts of spoken discourse and comparing these to children's spoken and/or written texts, SFG analysis revealed that, in the adult texts, uncountable nouns are used in transitivity patterns not found in children's texts, such as Goals of experiential verbs of cognition ("understand knowledge"), affection ("appreciate beauty"), or perception ("witness history").

#### 4.3 Distributional Visualization: Comparative Register Profiles

Figure 1 displays normalized frequencies (per 10,000 words) exploring the register-distinctive summary. The chart demonstrates that while a concrete noun shapes the baseline in both registers, adult corpora systematically possess high frequency of abstract, uncountable, and possessive class. The 'register signature' appears as a contrary connection: enhance abstractness, mass reference, and relationality in adult texts show a relationship with reduces frequency of transparent concrete reference.

[Figure 1: Normalized Noun Distribution by Category and Register (tokens per 10,000 words)]

##### Children's Literature Register Profile:

- ❖ Concrete (1,664 pmw): Dominating anchor
- ❖ Compound (415 pmw): Secondary nominal strategy
- ❖ Collective (21 pmw): Social reference base
- ❖ Abstract (151 pmw): Minimal ideational complex
- ❖ Possessive (22 pmw): Limited relationalization
- ❖ Uncountable (17 pmw): Mass reference absent

##### Adult Literature Register Profile:

- ❖ Concrete (1,643 pmw): Baseline maintained
- ❖ Abstract (211 pmw): Tripled ideational capacity
- ❖ Uncountable (63 pmw): 3.7x expansion for mass reference
- ❖ Compound (433 pmw): Lexico-grammatical compaction
- ❖ Possessive (34 pmw): Heightened relationalization
- ❖ Collective (19 pmw): Reduced frequency despite increased complexity

#### 4.4 Systemic Functional Analysis: Theme-Rheme and Information Structure

A study of relation between the structures (Theme-Rheme distribution) of presented information and new information within the clause using SFG analysis shows that the distribution of noun types makes sense of information packaging. Themes mostly came in the form of concrete nouns (73% of sample) in children's texts, which allowed readers to begin the text with known actors before introducing new processes. Rhemes had process information and circumstantial detail resulting in a predictable information flow (known agent, new process).

Short sentences or abstract nouns dominate the adult literature (58% of Themes) in operations where the adult helps to process the transformations in the child's story embedded in the texts. Short sentences or abstract nouns are in the majority in the adult literature (58% of the Themes), in operations where the child's story transformation, inlaid in this literature, is being processed by the adult. This approach focuses on the idea/complexity and the reader is asked to cope with any abstract idea or concept as a topic of narration. The other 42% of adult Themes were concrete or relational nouns set in a rankshifted or non-finite (imperative,

participle, or gerund) clausal structure, such as 'The man she had loved for decades, standing at the threshold, embodied an impossible choice'. In this case, the concrete noun 'man' features in an embedded participial clause, making use of the theme complexity.

The results show that noun type selection makes up a linguistic strategy for the construction of the register specific thematic progression (Danes, 1974) specific to developmental and cognitive differences. Children use 'constant theme' (identical concrete agent in all clauses) in children's texts, which allows for cumulative sequences of action. In the adult texts the patterns of 'split theme' and 'derived theme' are presented, where abstract nominalized processes/noun phrases or uncountable objects are used in various clauses to introduce topics, resulting in more complex ideational hierarchies.

### 5. Findings and Systemic Functional Interpretation

The quantitative and qualitative analyses converge on several key findings:

#### Finding 1: Register Differentiation through Mass Reference

The adult literature contains the most discriminative feature that involves a 276.9 % increase of uncountable nouns. In SFG, uncountables refer to experience in a way that makes one think of it as continuous and unlimited and doesn't require partitioning, allowing for a discussion of ideas (technology, knowledge), materials (water, air), abstract attributes (beauty, justice), and abstract systems (government, society). This is a useful characteristic which has a resonance with adult narrative, which will often delve deeper into social, philosophical and psychological areas, subjects which are outside the scope of children's literature. The results of the statistical analysis ( $\chi^2=4,821.6$ ,  $V=0.48$ ) are strongly significant statistically and have proven that mass reference is actually a basic register marker.

Finding 2: Nominalization, which is a strategy of ideational packaging

In the adult literature, there is a rise of 40.2% in abstract nouns (12,671 vs. 9,036) in which the Process-nominalizations have proven to be the most important factor found in a qualitative study. Nominalizations allow adults to represent Processes as nominal participants which represent a multi-clausal meaning within a single nominal. This raises the lexico-grammatical density of the language, and permits hierarchical clause structure, the top level of which nominatives. Children's texts do not use this strategy—rather they express the processes mentioned or described by using explicit material and Mental clauses, which have lower lexico-grammatical density appropriate for the developing readers.

#### Finding 3: Renationalization & Possession

Possessive nouns increase 55.0% in adult literature (2,065 vs. 1,332), a substantial effect ( $\chi^2=342.8$ ). Through SFG analysis, it can be seen that possessives can be used to express embodied relations and to encode the notions of control, hierarchy and general abstraction. In purposes of adult narrative, use of possessives forms complex relationships which include social status ("the king's command"), temporal relationship ("this time's opportunity") and quality relationship ("her kindness") and causal linkage ("the devastation of the war"). Children's texts which have flatter relationships of others need fewer possessives.

Finding 4: concrete noun distribution masks are found in different places

Although in their raw frequencies, it appears that the two classes, concrete nouns, have the same frequencies, functional analysis shows a different deployment. Children's texts focus concrete nouns in high-frequency high familiarity categories (boy, girl, mother, house) which form the Actors in simple and transitive Material clause. The concrete words in adult texts are distributed out more in terms of their corresponding semantic domains and participant role, with embedded concrete nouns used within complex nominal groups, and non-canonical transitivity structures. This is a departure from paying attention to functional context only to frequency to ensure that distributional adequacy.

## **Discussion: Pedagogical Implications and Theoretical Significance**

### **6.1 Implications for Reading Instruction and Text Selection**

The reading experiences of students are shaped by these implications for reading instruction and text selection.

The results of her study have direct relevance to literacy instruction. Difficulty in the text grows not only according to the frequency of vocabulary used but by using different types of nouns which call for growing cognitive demands. The quantitative measurement of readability should contain features of (1) uncountable noun density, (2) nominalization density, (3) possession/relationalization density, and (4) concrete noun density type variety. The current readability indices (Flesch-Kincaid, Lexile) give attention to word frequency, sentence length, and ignore these markers of the grammatical register. Combining metrics of the noun type would allow having a finer-grained evaluation of text-reader matching.

These findings have implications for instructional practice in that there is a recommended progression for teaching through different types of nouns. Early literacy (grades K-2) should focus on concrete nouns, which, for the child, have more referential stability (less variability among objects and agents), and nurture conceptual development before adding a greater variety of nouns. There can be more exposure and diversity in concrete nouns, some abstraction in abstract nouns, and some nominalization in the intermediate (grades 3-5) stage of literacy. Meta-linguistic awareness can be developed through explicit instruction of nominalization and mass reference and with the increased use of abstract, uncountable and relationalized noun patterns in the context of upper elementary and secondary literacy (grades 6+).

### **6.2 Implications for Grammar Instruction and Meta-linguistic Awareness**

SFG-informed pedagogy focuses practical usage of grammar teaching, where students discover how grammatical choices create meaning (Macken-Horarik & Isaac, 2014). The finding of this research offers clear instruction on nominalization and mass reference as features facilitate complexity. Learners may carry out corpus-based inquiry making comparison noun categories in age-appropriate children's content versus adult's content, creating understanding of how register-specific noun patterns produce convenience or intricacy. Such instruction changes rule-based grammars to functional option, involving students in examine how an author adopts noun taxonomy to create specific meanings and effects.

For writing order, understanding of noun-class patterns facilitates students to intentionally adapt their discourse register. Nascent writers often adopt chiefly concrete reference and simple transitivity structures showing their increasing grammatical resources. Instruction focusing systematic introduction of abstract nouns, uncountable reference, and possessive relationalization—with modeled instances and guided practice—can hasten expansion toward more complicated written inventory.

### **Theoretical Contributions to Systemic Functional Linguistics**

The study helps advance SFG theory by providing empirical evidence for the realization of different sets of ideational meaning making systems in terms of the distribution of the types of nouns. This research quantitatively confirms that the noun taxonomy is one of the basic mechanisms of register differentiation that Halliday & Matthiessen (2014) formulated a theory about the existence of registers with different 'angles' or organization of meaning. The significant rise in the number of uncountable references in adult's discussions confirms that theory that the mature registers build wider experiential circles including mass phenomena, abstract entities etc.



Additionally, the analysis shows the correlation between lexico-grammatical density (e.g., nominalizations, possessive renationalization and complex nominal group modification) with the distribution of nouns. Children's texts have fewer of the nouns that are concretely described, and they tend to use process-rich clausal structures which often employ minimally-modified nouns. The density of adult texts is higher in comparison with the density of children's texts achieved by the use of abstract and uncountable noun substrates available for making Nominal Group elaboration. The link between noun type and density offers a valuable nuance in the emerging understanding of the development of meaning, lexical richness and register specific meaning-making.

**To conclude, there are limitations and future research for this study:**

This study is based on the field of narrative models of fiction and is concerned with other genres such as non-narrative (expository, argumentative and poetic) which might have other types of noun distribution where it could differ substantially. Findings related to the variation of noun taxonomy from one genre, and register at the same time could be extended by the use of a specialized corpus that investigates these genres. Further, the study doesn't discuss variations in-age children's literature (a likely difference is that texts for ages 3-5 may differ from those for ages 8-10), nor consider multilingual contexts in which there is variation in grammatical means of mediating mass/count distinction (such as Romance languages with obligatory gender markers which affect noun distribution). Theories about the supposition of the universal nature of noun-register relationships might be supported by a cross-linguistic investigation.

Last, this research does not assess comprehension results nor investigate a relation between the distribution of the different types of nouns and problems in reading comprehension (as measured using eye tracking or reading comprehension tests). Pedagogical claims made here can be supported using empirical studies on noun taxonomy related with the cognitive processing demands.

**7. Conclusion**

The present corpus based study of 202,449 noun tokens in the children's and adult literature shows that the taxonomy of nouns is a fundamental mechanism which differentiates registers and has great educational implications. The most important is that in the adult literature, the rise in uncountable nouns was 276.9%, which shows the use of the older form of discourse in which mass reference also comes into play in the construing of unbounded, continuous experience that is lacking in children's discourse. Adult registers demonstrate an increase in lexico-grammatical density, by systematically selecting noun types that derive from verbs, accompanying this by increases in nominalisation, POS-related 'relationalization' and the variety of concrete nouns, so that this register is more 'contextualized'.

These distributional patterns have not only interesting linguistic characteristics, but also symbolic descriptions that reflect key differences in the organization of experiential meanings in registers. In SFG, the selection of the noun type has significant influence on the construction of the participants, namely concrete vs. abstract, discrete vs. mass, relationally-bounded vs. unbounded which directly relates to transitivity systems, nominal group complexity and information structure. Children's texts, which tend to represent a concrete event and the actors involved in it, help children to anchor ideas conceptually and develop ideas in a cumulative fashion as they proceed in the text. The techniques of manipulating the abstraction of nominal, mass and possessive resources in adult literature allow psychological depth, social concepts and philosophical exploration.

Pedagogically, the results point to the need to build complex types of nouns gradually throughout the developmental stages, to explicitly teach students to use nominalization and

mass reference and to explicitly show students the building and functioning of meaning in the text using corpus-based investigations to increase meta-linguistic awareness of the way in which noun patterns contribute to constructing meaning at the register level of a text. Moreover, the noun type density could be incorporated into fine-grained readability metrics that could be more useful for predicting the difficulty of text. In addition, noun type density could prove to be a more useful fine-grained readability metric suitable for more precise reader-text matching.

The research shows that the use of grammatical elements and their quality and complexity is what characterizes the literary registers, rather than the frequency of the words themselves. In focusing on the role of the noun taxonomy as a register, linguists and educators develop an understanding of how the system can adjust itself to the requirements of audience, purpose and meaning making. This approach, which can be extended to the analysis of grammatical systems across the lifespan and different kinds of children's texts, either mono- or multilingual, holds potential promise for enriching the knowledge of grammatical system change in children and its facilitation in educational settings.

### References:

- Biber, D. (1988). *Variation across speech and writing*. Cambridge University Press.
- Biber, D., & Reppen, R. (2002). What does frequency have to do with grammar? *Studies in Language and Linguistics*, 28(4), 605-623.
- Bloor, T., & Bloor, M. (2004). *The functional analysis of English: A Hallidayan approach* (2nd ed.). Arnold.
- Christie, F. (2012). *Language education throughout the school years: A functional perspective*. Wiley-Blackwell.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Lawrence Erlbaum.
- Danes, F. (1974). *Papers on functional sentence perspective*. Academia.
- De Jong, M. T., & Bus, A. G. (2004). The facilitative effect of electronic books on children's reading comprehension and decoding fluency: A meta-analysis. *Journal of Educational Computing Research*, 30(3), 218-234.
- Halliday, M. A. K. (1989). *Spoken and written language* (2nd ed.). Oxford University Press.
- Halliday, M. A. K. (1994). *An introduction to functional grammar* (2nd ed.). Arnold.
- Halliday, M. A. K., & Matthiessen, C. M. I. M. (2014). *Halliday's introduction to functional grammar* (4th ed.). Routledge.
- Huddleston, R., & Pullum, G. K. (2002). *The Cambridge grammar of the English language*. Cambridge University Press.
- Hutson, R. B. (2002). Children's literature and reading comprehension: A comparative analysis. *Reading Research Quarterly*, 37(2), 168-194.
- Macken-Horarik, M., & Isaac, A. (2014). Appraising literariness: Stylistic engagement in the fiction reading practices of adolescents. *Journal of Adolescent & Adult Literacy*, 57(8), 659-668.
- Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge University Press.
- Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1985). *A comprehensive grammar of the English language*. Longman.
- Ravelli, L. (1988). *Discourse and disciplinarity: The question of the relationship between the general and the specific in a case study of three social science text types*. Unpublished doctoral dissertation, University of Sydney.