
ENCODING THE GLOBAL THEME IN RESEARCH ARTICLES: SYNTACTIC AND FSP PARAMETERS OF ACADEMIC TITLES AND KEYWORD SETS

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ABSTRACT

Research articles rank among the most prominent academic genres familiarizing their readers in a succinct way with the latest results of academic research. Due to the immense rate of publication these days, it has become increasingly difficult to gain reader attention. Among other things, such attention may be achieved by devoting particular care to the selection of a suitable title and perhaps reinforced with the help of the keyword set. Since titles and keyword sets are freely available and visible even in paid online journals, they are in open competition and serve a multitude of functions (e.g., enticing readers or raising their expectations). Crucially, they encode the Global Theme of Research articles, though in two distinct ways. This paper is based on a specialized corpus, composed of titles and keyword sets gathered from linguistic Research articles recently published by six renowned international journals. By examining their ideational, interpersonal, and textual functions, the author of this paper has sought to identify some of the prominent patterns and tendencies in their formulation, paying particular attention to their syntactic and FSP parameters.

Keywords: specialized corpus, research article, simple and hanging/compound titles, keyword sets, FSP, syntax

1. Introduction

Titles and keyword sets (KW sets) represent specific academic subgenres, marked by their brevity as well as their fixed initial or post-initial positions, and are clearly set off from the Research article (RA) itself. Both the subgenres seem to reflect the endeavour of the authors to delimit their research topic, to establish links between present and previous academic discourse and to advertise what they, in turn, add to the common pool of scientific knowledge, thereby claiming the general validity of their research for the entire community of practice. Admittedly, unlike the titles, the KWs do not represent an obligatory subgenre of RAs. However, their use appears to be increasing, at least in some fields, presumably thus reflecting the ever growing user-friendliness of academic

culture, especially of the writer-responsible (rather than reader-responsible) type, and, more generally, the impact of electronic media.

The two subgenres have a rather specific standing, since both are relatively independent (stand-alone, see Bhatia, 2004), but at the same time form an indispensable part of an RA (embedded, Bhatia, 2004). Both subgenres crucially encode the Global Theme of the RA, although in two distinct ways. They also cohere with one another and particularly with the RA itself. Indeed, they are expected to lure the target readers to the RA, but simultaneously deter others, whether expert or lay, lacking the necessary specialized knowledge. Among other factors at play here, they indicate from the outset that familiarity with the requisite terms and concepts is presupposed. Furthermore, both the KWs and the titles facilitate the automatic retrieval of the respective RAs, although the KWs appear to do so more directly.

Since the titles are freely available and visible even in paid online papers, they lend themselves to open competition and serve a multitude of functions. To borrow Halliday's framework (1985), they serve simultaneously all, the ideational, the interpersonal and the textual functions. To particularize further, the ideational function shows, among other things, that titles should identify the Global Theme of the RA, and possibly also suggest its epistemological tradition and disciplinary background. Likewise, they might encode the data, the methods used, the anticipated results, and the like. The interpersonal function stems from their capacity to entice readers, to raise their expectations and curiosity, to motivate or demotivate them instantly, thus potentially saving a lot of processing time (owing to their language economy). Through the title the writer also cooperates with the recipient by hierarchizing the RA content (foregrounding some of its elements) and by activating the relevant content frame/schema in order to facilitate and enhance the coherent reception of the RA. Furthermore, the textual role of titles shows their ability to signpost (label) the RA itself (endophoric link), reinforce the house style of the journal in a denominationally decorative way, establish intratextual and intertextual links with other titles from the same subgenres by triggering diverse cohesive chains which interrelate the titles with both the KWs and the actual body of the texts. In addition, they may establish interdiscursive links with similar academic subgenres, as well as with other academic genres dealing with the same or related topics (exophoric links).

Most of the above tasks can also be ascribed to the KW sets. However, while the titles seem to perform them fully, the functional load of KW sets appears to be somewhat more limited. For instance, unlike the titles, the KW sets do not fulfil the denomination role nor rank among those parts of RAs most likely to be cited in other academic studies. Moreover, they cannot anticipate the results. This restriction may explain why they do not represent an obligatory academic subgenre. Although the KWs also enter into interdiscursive relationships, their primary function appears to be intratextual and largely pragmatic.

2. Research preliminaries

2.1. Research available

Studied primarily in titlelogy (Baicchi, 2004), titles have been described as the “earliest point of contact between writer and reader” (Haggan, 2004), “combining informativeness with economy” (ibid.), as well as “consequential texts” (Gesuato, 2008) that determine whether the reader will continue to read. Their shape has been found to vary with respect to their fields.

The last three decades have seen a growing interest in academic titles, the research being conducted particularly, though not exclusively, within the scope of English for special purposes. Attention has been given to a wide range of parameters for academic titles. To name but a few, researchers have explored their phoricity (Baicchi, 2004); disciplinary peculiarities and cross-disciplinary variations (including differences between the soft and hard sciences, e.g., Anthony, 2001; Mendéz, Alcaraz, 2015; Cianflone, 2010; Nagano, 2015; Salanger-Meyer, Ariza, 2013; Sisó, 2009; Soler, 2007); genre-specific characteristics and cross-generic peculiarities (e.g., titles of monographs, dissertations, RAs, e.g., Gesuato, 2008; Jalilifar, 2010; Soler, 2007); cross-language and cross-cultural distinctions (e.g., Blaheta, 2006; Busch-Lauer, 2000; Soler, 2011); their external or graphic features (e.g., Anthony, 2001); particular or unusual features of titles (e.g., direct speech, abbreviations; Pułaczewska, 2009; Mendéz, Alcaraz, 2015). Though most of the existing studies are synchronic, some diachronistic research is also available (e.g., Mendéz, Alcaraz, 2015).

As far as relevance for the present study is concerned, a number of authors have focused on the syntactic parameters of titles (e.g., Haggan, 2004; Soler, 2007; Wang, Bai, 2007; Cianflone, 2010; Jalilifar, 2010; Moattarian, Alibabae, 2015), although the criteria upon which the writers establish their taxonomies have frequently been conflated and many title types have been identified by some of their most conspicuous features. Authors concur in stating that there are both single- and double-unit titles, the latter being sometimes referred to as compound (e.g., Haggan, 2004), hanging (e.g., Anthony, 2001), and colonic titles (e.g., Hartley, 2004). In her study, Haggan (2004) further features full-sentence, compound and nominal titles, the last class with or without modification. Cianflone (2010) includes nominal, full-sentence, compound and question titles. Jalilifar (2010) also proposes a classification based on syntactic encoding and discriminates between NP, VP, PP, full-sentence and compound titles.

As far as the author knows, no specialized research focusing on the FSP parameters of titles has been carried out to date. However, valuable insight can be gained, chiefly from FSP studies by some prominent Czech scholars, including Svoboda (1968, 1989), Firbas (1992), and Dušková (2015).

In contrast, it seems that KWs have as yet been explored mainly in terms of their capacity to facilitate the automatic retrieval of an RA.

2.2 Research aims

Given the immense functional load of these subgenres, which contrasts sharply with their brevity, it appears worthwhile to examine some of the leading tendencies in their formulation. This paper seeks to uncover some of their conspicuous syntactic and FSP characteristics and to compare relevant aspects of titles and KW sets as two distinct approaches to the Global Theme of the RA. It is based on a specialized corpus of linguistic RAs and tries to balance quantitative and qualitative findings. Although generally more attention is given to RA titles, the findings are set against the trends detected in the KW sets.

This exploration of syntactic and FSP parameters means the paper has several foci. Firstly, the aim is to bring to light the leading formulation tendencies in recent linguistic RA titles. Secondly, the same exercise is repeated in the case of the corresponding KW sets. Finally, the paper is designed to correlate and compare the findings for the two subgenres, viewed as two distinct embodiments of the Global Theme of the RAs.

2.3 Corpus

This paper is based on data gathered from six renowned, international, peer-reviewed linguistic journals, namely *Lingua* (hereinafter: 1), *Language & Communication* (2), *Journal of Pragmatics* (3), *Language & Speech* (4), *International Journal of American Linguistics* (5) and *Language* (6). The corpus was composed of research articles (RAs) exclusively, reviews and editorials being disregarded. To qualify for inclusion, the RA had to exhibit both a title and a set of keywords as well as an abstract. An attempt was made to select only authors displaying English-sounding names or those affiliated with a university established in an L1 English-speaking country (within the inner circle of the Kachruvian model).

In quantitative terms, from each of the above journals, 50 RA titles and the same number of KW sets were drawn. As a result, the specialized corpus comprised 300 recent RA titles and 300 KW sets, i.e., 600 specimens in all. Since the journals differed in the total of issues per year as well as in the number of native authors publishing their RAs in them, I explored the most recent papers (2015) first and, when necessary, looked at back issues from 2014 and earlier to assemble the same number of RAs from each journal.

With regard to length, the title sub-corpus naturally proved to be larger, accounting for 3,029 words altogether, while the KW sub-corpus was found to be more constrained, comprising 2,409 words, with the entire corpus amounting to 5,438 words. It is noteworthy that all the data are available for free online.

2.4 Graphic aspect

2.4.1 Titles

In the data, the titles seldom exceeded the graphic space of two lines, whatever the size of fonts adopted, in extreme cases spanning four lines. The mean length of the titles examined turned out to be 10.09 words. Naturally enough, the individual journals varied in this respect, with their mean lengths ranging between 8.26 words (5) and 11.62 words (2).

This seems to suggest that the contributors recognized, attuned to and co-constructed a kind of journal house style. The titles were constructed as single- or two-unit structures, with one exception verging on a three-constituent title: *(Almost) everyone here spoke Ban Khor Sign Language – Until they started using TSL: Language shift and endangerment of a Thai village sign language* (2). It should be pointed out that the boundaries of title units were signalled graphically (chiefly by punctuation marks, i.e., mostly by colons, or by some less common means, such as stops or dashes, with the punctuation being combined with, and potentially reinforced by, the immediately succeeding capitalization, unless the journal in question capitalized all the title content words anyway).

In the academic subgenre of RA titles, multi-word constructions represent an established norm. In the corpus, a single content word never constituted an RA title. Nevertheless, a single content word did on rare occasions form one part of a hanging/compound title, e.g., *Requests: Knowledge and entitlement in writing tutoring* (2); *The Combining of Discourse Markers – A Beginning* (3). The shortest titles in the corpus were detected among the single-unit ones and comprised only two graphic words, e.g., *Communicating content* (2); *Intercultural impoliteness* (3); but they proved to be rather marginal. Conversely, the longest titles turned out to be two-unit structures, composed in extreme cases of 25 graphic words: *Working the overall structural organization of a call: How customers use their position as leverage for gaining service representatives' assistance in dealing with service problems* (2); *Functional Load and the Lexicon: Evidence that Syntactic Category and Frequency Relationships in Minimal Lemma Pairs Predict the Loss of Phoneme Contrasts in Language Change* (4).

2.4.2 KWs

In contrast, the space provided for KW sets varied between one and two lines, with a single exception filling three graphic lines (2). Since the KW sub-corpus of 2,409 words comprised 300 KW sets and encompassed altogether 1,545 KWs (i.e., KW items), the mean number turned out to be 5.15 KWs per KW set, embodying on average 8.03 words, with a typical KW (unit) involving 1.56 words. With regard to the differences between the individual journals, the mean lengths ranged between 1.52 words (5) and 1.83 words (4) per KW item. It would appear that contributors either had to follow the respective style sheets, or else deliberately decided to adjust their KWs to established house-style conventions. As for the extreme corpus findings, the shortest KW set detected exhibited only three words (2), whereas the longest was made up of twenty words (4).

In the data, KW sets featuring five KWs were the commonest of all (35.33% of the KW sub-corpus), followed by six-item KW sets (28.33%) and four-item ones (23.67%). In fact, these three groups composed a clear majority of instances (87.33% of all), the remainder being rather rare. It should be noted that the extreme sets comprised three KWS (*Semantics; Pragmatics; Proposition*; (3) and ten KWs (*person shift, pronouns, narrative peak, narratives, evaluation, imperatives, tense shift, historical present, discourse structure, Silverstein hierarchy* (6), respectively).

3. Research results – titles

3.1 Title typology

As follows from Figure 1 below, there are two types of titles in terms of the number of their constituents – simple (i.e., single-unit) ones, e.g., *The Syntax of Sanskrit Compounds* (6) and hanging/compound ones (i.e., composed of two or even more graphically marked units), e.g., *Ensuring Language Acquisition for Deaf Children: What Linguists Can Do* (6). In the data, simple titles (52.33%) prevailed over hanging/compound ones (47.67%).

Syntactically, both the titles and their constituent parts may be divided into clause-type and phrase-type structures. In addition, some ambiguities between the clause-type and phrase-type construction may also be detected, e.g., *The nature of Old Spanish verb second reconsidered* (1). Within the clause-type titles/title parts, we can distinguish finite (see below), non-finite, e.g., *Analyzing Ethnic Orientation in the Quantitative Sociolinguistic Paradigm* (2), and verbless (i.e., elliptical) cases, e.g., *Time for a change?* (1). Furthermore, the finite ones may take either the shape of a main/independent clause, e.g., *Does Deliberate Metaphor Theory Have a Future?* (3), or that of a subordinate clause employed independently, e.g., *How language communities intersect* (2), an instance of a nominal relative clause. Conversely, the phrase-type titles are constructed either as, though rarer, prepositional phrases (PPs), e.g., *On reference work and issues related to the management of knowledge: (...)* (3), or as more prevalent noun phrases (NPs), e.g., *The Role of Facial Motor Action in Visual Speech Perception* (4). Hence the syntactic realization of titles is rather varied and most seem marked, at least judging by typical independent structures in the written language. In fact, they can be arranged on a cline, since their variegated character is further diversified by punctuation, which may be conclusive (e.g., full stop, question mark), inconclusive (e.g., colon, dash) or missing altogether.

Figure 1. Title typology

A.	SIMPLE VS. HANGING/COMPOUND (also COLONIC) titles
B.	CLAUSE-type vs. PHRASE-type (+ AMBIGUITIES)
	i. CLAUSE-type: finite (main clause; subordinate clause), non-finite, verbless (elliptical);
	ii. PHRASE-type: noun phrase, prepositional phrase
C.	PUNCTUATION: conclusive, inconclusive, absent

In terms of the syntactic relationships involved, the titles exhibited predication, typically coupled with complementation, e.g., *Does space structure spatial language?* (6); *Understanding change through stability* (1); coordination, e.g., *Patwin Phonemics, Phonetics and Phonotactics* (5); modification, e.g., *Mechanism of Disyllabic Tonal Reduction in Taiwan Mandarin* (4) and apposition (manifested not only within title structures, as in *Polarity particle responses as a window onto the interpretation of questions and assertions* (6), but could also be ascribed to the relationship between the two parts of hanging/

compound titles). Exceptionally, a single, unmodified head noun was used to form part of a hanging/compound title, e.g., *The combining of Discourse Markers – A beginning* (3).

3.2. Titles – quantitative results

The corpus findings for title realizations are provided in Figure 2 and further discussed below.

Figure 2. Corpus findings for Simple and Hanging/Compound Titles and their realizations.

SIMPLE TITLES (52.33%)	TOTAL	REALIZATIONS		HANGING/ COMPOUND TITLES (47.67%)	TOTAL	CONSTITUENT REALIZATIONS	
PHRASES	85.99%	NP	85.35%	PHRASE + PHRASE	65.03%	NP + NP	60.84%
		PP	0.64%			NP + PP	4.19%
						PP + PP	0%
AMBIGUITIES	1.27%	(PHRASE/CLAUSE)		PHRASE + CLAUSE	28.68%	NP + CL	27.98%
						PP + CL	0.70%
CLAUSES	12.74%	NON-FIN	7.01%	CLAUSE + CLAUSE	6.29%	AMB + NON-FIN	0.70%
		FIN	5.73%			V-LESS + NON-FIN	0.70%
						FIN + NON-FIN	0.70%
						FIN + FIN	4.19%

As regards the simple titles, the majority (85.99%) were constructed as phrases, chiefly as NPs (85.35%) and marginally as PPs (0.64%). Three cases were potentially ambiguous between clause and phrase construction (1.27%). Clause-type titles accounted for 12.74%, with non-finite clauses (7.01%) slightly prevailing over finite ones (5.73%).

Looking at the feasible combinations of structures in the hanging/compound titles, a convincing majority was constituted by two phrases (65.03%), over a third by a clause and a phrase (28.68%) and a small proportion (6.29%) by two clauses (including ambiguities). However, when each of the two constituents was counted separately, phrases in hanging/compound titles amounted to 77.97% of all constituents, whereas clauses composed the remaining 22.03% of units. Hence, compared with simple titles, hanging/compound ones are marked by an increase in verbal features and thus dynamicity.

As for two-phrase hanging/compound titles (i.e., 65.03% altogether), they typically embraced two NPs (60.84%) and less commonly there was a combination of a PP and an NP (4.19%). In the data, two PPs were never juxtaposed to form a hanging/compound title. Furthermore, the corpus included 28.68% of instances where hanging/compound titles correlated a phrase (primarily an NP) and a clause-type structure, whether main or subordinate, and whether they featured a finite verb, a non-finite verb, or were indeed verbless. In such cases, the phrase tended to occur on the right, being preceded by a more dynamic clause construction. The reverse was attested to in only

one fifth of specimens, the most frequent group exhibiting an NP followed by a non-finite clause. Last of all, there were several hanging/compound titles (6.29%) employing a clause in each part. Three of these combined a main clause structure with a non-finite one, three coupled a subordinate clause with a non-finite one, and a single hanging/compound title matched a main clause with a subordinate counterpart. In the data, no single title correlated two main clauses. Admittedly, there was also a verbless clause matching a non-finite one, and a non-finite clause correlated with a structure potentially ambiguous between a clause/phrase. All in all, phrases (chiefly NPs) clearly prevailed, realizing both constituents of hanging/compound titles in 65.03% of cases, and one of the parts in 28.68% of specimens.

3.3 Titles – qualitative results

3.3.1 Clause-type titles/Title constituents

3.3.1.1 Main clause titles

Simple titles realized by main clauses were mostly marked by direct word order and the absence of terminating punctuation, e.g., *Hip-hop rhymes reiterate phonological typology* (1). The finite verb forms were all in the indicative mood. Hence such titles mostly corresponded to single-clause, declarative sentences, though devoid of the final period. However, the corpus also contained one instance of a *yes/no* interrogative with a regular question mark, e.g., *Does deliberate metaphor theory have a future?* (3).

With regard to main-clause constituents of hanging/compound titles, the situation turned out to be similar. Most of the finite verbs were in the indicative mood and were employed almost equally either in declarative clauses without the final period (eight specimens), e.g., *Onsets contribute to syllable weight: ...* (6) or in interrogative clauses terminated by a question mark, mostly *yes-no* category (five instances), e.g., *Do you speak Arabic? ...* (2), and less frequently *wh*-ones (two cases), e.g., *When are public apologies 'successful'?...* (3). Two titles were encoded as imperative clauses with imperative verb forms, e.g., *Don't Listen With Your Mouth Full...* (4).

In relation to the FSP aspect of titles (title constituents) realized as main clauses, they all proved to be in line with the rising CD (see Firbas, 1992: esp. 7–20, 66–67), observing end-focus and end-weight principles (e.g., *When are public apologies 'successful'?...* (3). Wherever the verb was transitive, the Rheme coincided with the particular verb complementation, e.g., *Hip-hop rhymes reiterate phonological typology* (1); *Do you speak Arabic?* (2); *When in doubt, read the instructions* (1). (Note: The Rhemes are underlined).

To sum up the findings on the titles encoded as main clauses: although the data included declarative, interrogative and imperative clauses, the declarative turned out to be the most frequent, accounting for 56%, followed by the interrogative (32%) and imperative (12%). This presumably points to communicative priorities. The declarative category was used to anticipate some of the findings from the RAs, the interrogative foregrounded the interpersonal function, engaging the recipient in interaction, while the rare occurrence of the imperative could serve to exemplify some of the phenomena analysed in the body of the RA itself. On the whole, main clause constructions, constituting altogether 9% of the data, realized simple titles less frequently (5.73% of simple titles) than hanging/compound ones (6.29% of their constituents). Note: For the sake of accuracy, from now on

figures will only be provided for hanging/compound title constituents, for the realizations of the two title constituents frequently differed.

3.3.1.2 Subordinate clause titles (with finite verbs)

In the data, a subordinate clause never encoded a simple title, but was occasionally employed to form a constituent of a hanging/compound title. This was the case in 1.75% of the hanging/compound title constituents, and 1.13% of the entire corpus. The findings were all realized as nominal relative clauses employed to denominate, whether introduced by *How* or by *What*, e.g., *How language communities intersect* (2); *What linguists can do* (6); *How concepts and conventions structure the lexicon* (1).

Regarding their FSP aspect, all the instances proved to be in line with the rising CD, with the verb, or, where transitive, verb complementation, representing the Rheme, e.g., *How language communities intersect* (2); *What linguists can do* (6); *How concepts and conventions structure the lexicon* (1).

It should be noted, however, that there were two other specimens of finite verb clauses, this time not employed independently, but used to postmodify their nominal heads. In line with Greenbaum and Quirk (1990: 363–382), Huddleston and Pullum (2005: 183–191), and others, they are treated here as modifications, e.g., *The Woman who was a Fox*: (5); *Evidence that Syntactic Category and Frequency Relationships in Minimal Lemma Pairs Predict the Loss of Phoneme Contrasts in Language Change* (4). Interestingly, both were detected in hanging/compound titles.

All in all, titles featuring a finite verb (primary predication), constructed as main or subordinate clauses, proved to be generally rather rare, constituting 5.73% of simple titles, 13.29% of the first parts of hanging/compound titles, and 2.80% of second parts.

3.3.1.3 Non-finite clause titles

Statistically, the non-finite verb forms were more frequent than the finite ones, realizing 14.67% of the corpus titles. More specifically, they accounted for 7.01% of simple titles and 23.08% of hanging/compound titles (11.54% of constituents). In fact, they proved to be far more popular in the first parts of hanging/compound titles (13.99%) than in the second parts (9.09%). Naturally, non-finite titles were not concluded by terminating punctuation marks. The simple titles and the second parts of the hanging/compound ones were unambiguously marked by the absence of punctuation, whereas all the first parts of the hanging/compound titles realized in this way displayed a colon at the end. Moreover, most verbs were transitive, calling for complementation, typically by a direct object, e.g., *Exploring the source of differences and similarities in L1 attrition and heritage speakers competence*: (1); *Understanding change through stability* (1); *Inferring difficulty*: (4), and less commonly by a prepositional object, e.g., *Talking to a stranger* (2). Occasionally, a transitive verb was employed intransitively, e.g., *Relinquishing in musical masterclasses*: (3), or else an intransitive verb was preferred, e.g., *Drifting without an anchor* (4). Though potentially ambiguous, the last three instances were counted as non-finite structures chiefly owing to their dynamic lexico-semantic features.

Among other characteristics, the use of non-finite verb forms seems to testify to the researcher's modesty, which follows from the agency. Indeed, such structures at the least included the researcher among the implied agents, e.g., *Investigating the influence of atti-*

tudes on language accommodation (2); *Defining Nominal Compounding as a Productive Word-Formation Process in Chuxnabán Mixe* (5), but at times the agent was conceived more broadly, and was by no means confined solely to the producer, e.g., *Ensuring language acquisition for deaf children: ...* (6); *Understanding change through stability*: (1). In fact, it appeared to be deliberately indeterminate, strategically vague, with its denotation varying from case to case, and potentially embracing the readers, the informants, the community of practice, the community as a whole, and the like.

In this context, it should be noted that non-finite verb structures may occasionally produce ambiguities, at least for non-specialists, e.g., *Voicing cooccurrence restrictions in Afrikaans* (6), here treated as premodification realized by a participle, as corroborated among others by the KWs: (*Afrikaans, grammatical change, obstruent voicing, cooccurrence restrictions, lexicon*). Interestingly, two hanging/compound titles in the corpus even saw coordination of non-finite verb forms: *Sharing and negotiating stance within the turn constructional unit* (3); *Managing and evaluating problematic interactions in a multilingual medical environment* (2). Another remarkable title involved near-parallelism: *Crossing into the past and crossing out the present* (2), verging on a pun and resembling the type of title practice that is common in journalism.

As for the FSP dimension of these non-finite clauses, one of the most conspicuous features appears to be their Theme-less nature. It follows, then, that the structures were typically “perspectived”/oriented towards Rhematic post-verbal complementation, and marked by rising CD. The following should serve as an illustration: *Working the overall structural organization of a call: ...* (2); *Narrating participation and power relations in a social inclusion program* (2); *Examining the Acquisition of Phonological Word Forms with Computational Experiments* (4); *Avoiding emotivism* (2). Hence, such title constructions were encoded as Theme-less, presumably to foreground the Rheme, and to meet the need for language economy.

Naturally, non-finite verb forms involve a whole range of phenomena finely graded with respect to their share of dynamic features. In addition to the above instances, mostly complemented by direct or prepositional objects, there were gerunds apparently manifesting more nominal features, since they were premodified, e.g., *Morphosyntactic Marking on Intransitive Verbs* (5); *Advice-giving in newspaper weather commentaries* (3); *Lexical cloning in English*: (3); *Vowel patterning of Mormons in Southern Alberta, Canada* (2); *LF-copying without LF* (1). Occasionally the same pattern occurred even without modification: *Asking or Telling – Real-time Processing of Prosodically Distinguished Questions and Statements* (4). Due to their increased share of nominality, for the purpose of quantification, these cases were treated here as syntactic nouns (NPs), even though they should be clearly distinguished from regular (deverbal) nouns, e.g., *The Marking of Nonsingular Verbal Objects in Natchez* (5); *The processing of book polysemies* (1). It may be superfluous to note that non-finite verb forms can also be employed in attribute functions, e.g., *Factors affecting African American English usage and accommodation in adolescent peer dyads* (2), subsumed under NPs below.

3.3.1.4 Verbless titles

Another marginal type displayed potential finite-verb ellipsis, with the ellipsis justified by the terminating punctuation e.g., *Intact grammar in HFA?* (1). Strictly speaking,

these titles were constructed as NPs, but were always followed by a terminating punctuation mark (a question mark exclusively in the data examined), which turned them into verbless clauses devoid of a finite verb. In the corpus, such structures proved to be generally peripheral, constituting 1.13% of all the data. In fact, no such cases were detected in simple titles, but there were some findings in hanging/compound titles, all in the first parts (1.75% of all the hanging/compound title constituents). Some of these constructions corresponded to *yes/no* questions, e.g., *Time for a change?* (1), while others to alternative questions (Huddleston and Pullum, 2005:163) e.g., *Synchronic or Diachronic Derivation?* (5).

In view of their FSP parameters, like the non-finite verb forms, these encodings seem to be marked by deliberate, strategic vagueness. They are Theme-less, the whole elliptical structure epitomizing the Rheme. Since, linguistically, these structures were in fact realized as NPs, the Rheme proper, if there was one, fell mostly on the modifier, e.g., *Time for a change?* (1); *Direct Off-record Requests?* (3); *Synchronic or Diachronic Derivation?* (5). Nevertheless, some marginal instances were potentially vague, e.g., *A Typological Novelty?* (5). Presumably, when featured in a journal (issue) focusing on typology, the Rheme proper would fall on *novelty*, the analysis also being supported by the semantic factor (Firbas, 1992: 41–65). Conversely, if the journal dealt with new discoveries in diverse research fields, the Rheme proper would coincide with the modifier (for more on the treatment of NP modification in FSP, see below).

3.3.1.5 Ambiguities

Among the potentially elliptical structures, there were also three borderline, peripheral cases (with the finally positioned past participle following the syntactic noun head), in fact equivocal between clause- and phrase-like interpretations i.e., *Borders traversed, boundaries erected?* (2); *Cherokee noun incorporation revisited* (5); *Precede-and-command revisited* (6). The preferred clause-type treatment would involve finite verb ellipsis, while the phrase-type view would consider these specimens as NPs featuring non-finite post-modifications. Although this pattern was marginal, composing only 1% of all the data, it was detected in both, simple (1.27%) and hanging/compound titles (0.35% of the constituents). What opened space for possible elliptical interpretations was especially the dynamic features of the non-finite verb form and/or the word order, once reinforced also by a question mark. By and large, though infrequent, such title encodings only added to the rich scale of conceivable title realizations, epitomizing their strategic vagueness.

In terms of their FSP, it seems that all these instances were couched in line with the rising CD with the Rheme falling on the final *-ed* form. Such an interpretation seems to be also corroborated by the prosodic and semantic factor (i.e., the lexical meaning of the non-finite verb, in fact recurrent: *Cherokee noun incorporation revisited* (5); *Precede-and-command revisited* (6) and in one case it seems justified by, inter alia, the two less dynamic near-synonyms employed in parallel initial Thematic functions, which only confirms the context-independence of the latter participle, e.g., *Borders traversed, boundaries erected?* (2). If we adopt the clause view, in this instance the first element appears to take the subject function, and the latter that of a verb-less predicate.

Both the verbless (elliptical) and the potentially ambiguous title constructions virtually embody the transition between the clearly hierarchized FSP communicative fields, that

of the clause and that of the phrase, with the latter, as has been shown by Svoboda (1968), representing but a constituent of the former.

3.3.2 Phrase-type titles/Title constituents

3.3.2.1 Prepositional phrases (PPs)

Occasionally, titles or their constituents were encoded as prepositional phrases (PPs). These structures realized mostly the first parts of hanging/compound titles (6 cases), once a simple title, and once the second part of a hanging/compound title. Altogether, this pattern turned out to be infrequent, accounting for only 2.67% of titles (i.e., 0.64% of simple and 2.45% of hanging/compound title constituents). The most usual preposition proved to be *on* (four specimens), e.g., *On reference work and issues related to the management of knowledge*: (3), followed by *beyond* (two cases), e.g., *Beyond truth conditions*: (6), with other prepositions featuring only once: *About bound and scary books* (1); *In your dreams* (3). Interestingly, all the PP realizations of titles were attested to in only three journals (1, 3, 6). Potentially, many PPs in titles might be interpreted as special cases of pragmatic ellipsis of the respective nominal heads, leaving the communicatively more significant post-modifications stranded, with such implied heads as *study*, *research article*, *analysis*, etc. Nevertheless, in the present study, these cases were kept separate and not counted as elliptical.

With regard to the FSP aspect of such titles, the researcher can draw chiefly on Svoboda (1968), who included PPs within the broadly conceived communicative field of NPs. Thus, it seems that in such titles, Rhemes (Proper) fall on the modifiers, if there are any at all, and in their absence, they coincide with the nominal heads of the PPs, e.g., *On reference work and issues related to the management of knowledge* (3); *On the linguistic effects of articulatory ease, with a focus on sign language* (6); *In your dreams* (3); *Beyond sarcasm* (3). Hence, such structures proved to be mostly in line with the rising CD.

3.3.2.2 Nominal titles (NPs)

However, the decisive proportion of titles, both within the phrase-type category and within the entire corpus of linguistic RAs, were constructed as noun phrases (NPs). In fact, this central category accounted for 85.35% of the simple titles, 65.73% of the first parts of hanging/compound titles and 85.31% of their second parts.

The overwhelming majority of such NP titles (95.72%) displayed modification, the remaining 4.28% being devoid of modifiers. Interestingly, although the corpus comprised a few non-modified, bare nominal heads, they never realized a simple title, presumably because they were perceived as extremely short and under-informative. However, they were employed as components of hanging/compound titles. The corpus involved four such isolated syntactic nouns (1.14% of nominal titles/constituents), of which three constituted the first parts of hanging/compound titles and one a second part, e.g., *The Combining of Discourse Markers – A Beginning* (3); *Chitimacha: A Mesoamerican Language in the Lower Mississippi Valley* (5).

Coordinated bare syntactic nouns, devoid of modification, e.g., *Form and Function* (5); *Asking or Telling* (4), turned out to be more numerous (accounting for 3.85% of hanging/compound title constituents and for 2.48% of the entire corpus). They were distributed rather evenly between the first and second parts of hanging/compound titles. This seems to point to some conventional length limits imposed even on the constituents

of (hanging/compound) titles which apparently govern their stylistic acceptability, not to mention communicative efficiency.

Modified coordinated nominal heads were found to be more abundant as title realizations, since they made up over 17.42% of the nominal titles/constituents. They were distributed almost equally between single-unit (30 instances) and hanging/compound titles (31 cases). In terms of their attributes, some appeared as premodifiers exclusively, e.g., *Reformulative appositions and clausal ellipsis* (1), or predominantly (considering the number of content words employed in premodification vs. postmodification), e.g., *Resumptive pronouns, structural complexity, and the elusive distinction between grammar and performance* (1), more were distributed equally between pre- and postmodification, e.g., *Turn order and turn distribution in a multi-party storytelling* (3), and still others appeared in postmodification only, e.g., *The pleasures and possibilities of roadside shop talk in Tamil Nadu, India* (2) or primarily, e.g., *Language shift and endangerment of a Thai village sign language* (2). When one disregards the coordinated heads with an equal share of pre- and postmodification (9 specimens in all), then those premodified and primarily premodified instances (21 in all) are clearly outnumbered by the postmodified and largely postmodified cases (31 in all), the ratio being approximately 2:3. In this respect, the findings for the simple and hanging/compound titles proved to be similar, even though in the former the rate was somewhat less contrastive in favour of premodification.

The most decisive proportion of nominal titles were those exhibiting a single nominal head with premodification, postmodification, or a combination of the two (i.e., mixed type). Such a pattern was evident in 104 simple titles, 66 first parts of hanging/compound titles, and 104 of second parts. Some displayed solely premodification, e.g., *Intercultural impoliteness* (3) or primarily premodification, judging by the number of content words in the respective functions e.g., *Collaboratively organized stancetaking in Japanese*: (3). Others featured pre- and postmodification equally, e.g., *A pragmatic approach to anonymity* (3). Still others preferred postmodification, e.g., *A case study of Chinese participant perspectives* (3) or displayed it exclusively, e.g., *Effects of Age, Sex, and Syllable Number on Voice Onset Time* (4).

With respect to simple titles, premodification (5 instances) was outnumbered by postmodification (39 cases), but the mixed category, combining pre- and postmodification, had a crucial share (60 specimens in all). Within this mixed category, three subgroups were distinguished, based on the relative proportion of content words in their premodification and postmodification parts respectively. The nominal titles with predominant premodification and those with an equal share of pre- and postmodification (8 cases each) were clearly outnumbered by those with postmodification exclusively or primarily (44 instances). Hence, we can conclude that within simple nominal titles, postmodification dominated convincingly.

As regards the first parts of hanging/compound titles, the NPs were generally less frequent (66 cases altogether). Those solely displaying premodification and those featuring only postmodification were represented equally (17 items each), with the mixed type almost double the rate (32 cases). To gain a deeper insight, the mixed group was explored further, which revealed a decisive rate of postmodification. Indeed, there were three first parts where premodification prevailed, eleven first parts where pre- and postmodification were used equally, and 18 instances where postmodification had the crucial share.

Hence, even in the first part of hanging/compound titles, postmodification outnumbered premodification, though less so than in simple titles.

An examination of the second parts of hanging/compound titles reveals a remarkable growth in nominality, with as many as 104 nominal title parts. Among them, premodification (9 instances) was by far outnumbered by postmodification (54 cases), with the mixed type falling in between (41 examples). On closer scrutiny, however, within the mixed type group, title parts featuring mostly premodification (3 specimens) or those where pre- and postmodifications were balanced (8 items) were strongly surpassed by those where postmodification prevailed (30 second parts). Hence, postmodification turned out to be the leading pattern in the second parts of hanging/compound titles.

If we combine the findings for simple titles and both parts of hanging/compound titles, we find that of the 270 instances of NPs with single nominal heads and modification, there were 15.29% displaying premodification, 41.76% exhibiting postmodification but mixed type instances with pre- and postmodification made up the largest share of 42.95%. Further analysis of the mixed group confirmed the decisive proportion of postmodification. Indeed, nominal titles with premodification or prevailing premodification put together covered 18.82% of instances, those with an equal share of pre- and postmodification accounted for 11.18% of all, and nearly three fourths (70% of the total) showed a decisive share of postmodification or postmodification exclusively.

To summarize all the findings for the 350 NP/title parts: there were 4.28% of titles not featuring any modification at all, but the overwhelming majority (95.72%) of the nominal heads were modified. Within the latter group, there were 49 instances of premodification, 127 cases of postmodification, but the most remarkable proportion was the mixed type – 159 specimens in all. It follows from the data that heavily modified nominal titles represent the norm rather than the exception. In order to identify the tendencies, further investigation was undertaken within the mixed category. The results show that there were 18.86% of titles/title parts displaying premodification or a prevalent share of premodification. There were 10.29% of titles/title parts exhibiting an equal share of the two types of modification. However, a clear majority of titles/title parts, 66.57% of all, were marked by postmodification or primarily by postmodification.

With respect to the FSP aspect of NPs, this has been given particular attention in several studies, including e.g., Svoboda (1968: 49–101, 1989: esp. 101–104), Firbas (1992: esp. 14–20, 88–97), and Dušková (2015:135–159, 335–349, 362–377). Svoboda (1968), whose framework here is preferred to that in his later treatment, posits a hierarchy of distributional fields, with an NP constituting a distributional field of its own, embedded in the communicative field of the clause as its constituent. The author shows that unless a modifier is context-dependent, the head of the NP is Thematic, whereas the modification is more dynamic, and hence Rhematic. It should be noted that such Communicative Dynamism holds irrespective of whether the NP features pre- or postmodification. Recently, these findings have been confirmed and further developed by Dušková (2015: 349) who observes “a tendency for the noun phrase to be construed with postmodification at the first occurrence and premodification when reiterated.”

Hence, the titles being contextually independent (unbound), the dominant FSP pattern proved to be the Rhematic modifier, irrespective of whether it was construed as a premodifier or as a postmodifier, coupled with the Thematic head noun, e.g., *Mecha-*

nism (Theme) of *Disyllabic Tonal Reduction in Taiwan Mandarin* (Rheme) (4); *Implications of an Exemplar-Theoretic Model of Phoneme Genesis: A Velar-Palatalization Case Study* (4). Interestingly, many Thematic head nouns were often reiterated across the titles (e.g., *account, analysis, approach, case, change, control, effect, evidence, function, identity, implication, problem, relation(ship), role, sketch, study, type, typology, use, variation, view*), both within and across individual journals, which further corroborated this tendency and disclosed an established pattern. Noteworthy, too, was the fact that such head nouns usually denoted general academic concepts and were not featured in KWs.

In view of the FSP theories cited above, the results of the present research, which found postmodification in nominal titles as the central pattern, can hardly be surprising. Indeed, being the very first academic subgenre in an RA, the title is not contextually dependent/bound. Therefore, its NPs should duly give preference to postmodification. It may be worth noting that postmodification also appears to offer comparably more space for particularization on the first mention, since the number of stylistically plausible pre-modifying elements seems to be rather limited.

3.3.2.3 Factors for premodification

Given the fact that titles are not contextually dependent structures, what seems surprising is that some authors employed premodification in NP titles from the outset. The investigation uncovered a number of possible reasons for such premodifications. In what follows, some of the factors (morphological, lexical, syntactic, FSP, stylistic, pragmatic, processing and graphic) will be briefly discussed individually, even though they should not be seen as tightly compartmentalized and mutually exclusive. Rather, they often seem to work in concert with one another.

Premodifying elements in titles were frequently realized by adjectives whose pre-head position is grammaticalized in English, although exceptionally they may be found postposed e.g., *Narrative illocutionary acts direct and indirect* (3), due to coordination and other reasons, and thus attain the Rheme Proper function. Some adjectives formally coincide with non-finite verb forms, e.g., *The clichéd juxtapositions and pleasing patterns of political advertising* (2), and their postposition would change the meaning: * *patterns pleasing political advertising*. Interestingly, the above example illustrates the general scarcity of evaluative attributes in academic titles, here employed in parallel structures, presumably with an attention-drawing, foregrounding effect.

Some titles featured well-established, pre-fabricated terminological collocations and bundles, treated as an integral part of general or disciplinary background knowledge or as an indispensable scientific toolkit. They were constructed as NPs, with their head nouns premodified. In such instances, the fixed order of the constituents and the established character of the terminological collocation/bundle was confirmed when the title was compared with the respective KW set, since the same NP was usually detected even there, e.g., *Relative clause attachment in German, English, Spanish and French*; KWs: *Relative clause attachment; Cross-linguistic comparison; English; French; German; Spanish*; (1); (vs. * *An Attachment of relative clauses*). The existence of premodification in such bundles is indicative of previous research on the topic and hence testifies to the embeddedness of the bundle in the terminological network to such an extent that familiarity with such a complex term may be taken for granted and presupposed.

Sometimes, chiefly in cases with heavy modification of the head noun, part of the modifiers was preposed and part was postposed, presumably to mark the FSP juncture and set off the Rheme from the Rheme Proper, e.g., *A Stress “Deafness” (Rheme) Effect (Theme) in European Portuguese (Rheme Proper)* (4). This arrangement might also have been motivated by the tendency to keep the semantically rather homogeneous groups of modifiers together and to dissociate them by means of the medially positioned nominal head, e.g., *A Consonant/Vowel Asymmetry in Word-form Processing* (4), rather than **Asymmetry between Consonants and Vowels in Word-form Processing* (4).

Syntactic factors for the use of premodification in NP titles may also include the attempt to reduce the piling up of postmodifiers, e.g., *Vowel Patterning of Mormons in Southern Alberta, Canada* (2), rather than **Patterning of Vowels of Mormons in Southern Alberta, Canada*. This circumstance may go hand in hand with the need to prevent excessive use of function words and stylistic long-windedness. Ultimately, such considerations as ease of processing and pragmatic clarity may also be at play, precluding false interpretations, garden paths, and the like: e.g., *Biomechanically Conditioned Variation at the Origin of Diachronic Intervocalic Voicing* (4) rather than **Variation Conditioned Biomechanically at the Origin of Diachronic Intervocalic Voicing*.

In some specimens, premodification in titles would have been seen as less conspicuous, whereas postmodification appears more explicit, communicatively richer and easier to process, even though correlated with premodification in the KW sets. Naturally enough, such postmodifications proved to be longer and prosodically heavier, e.g., *Duration of American English Vowels by Native and Non-native Speakers: Acoustic Analyses and Perceptual Effects*; vs. KWs: *Vowel duration, duration pattern, non-native speakers, vowel intelligibility* (4); *Communication between hospital doctors: Underaccommodation and interpretability*; vs. KWs: *Underaccommodation; Interpretability; Health Communication; Inter-professional Communication* (1).

In fact, most premodifiers fell within a relatively restricted range of semantic fields, including those denoting particular languages, dialects, disciplines, theories, and so on, which were apparently perceived as an indispensable part of the necessary background knowledge, and by no means meant to pose a processing challenge on first mention, e.g., *Arabic interdialectal encounters: ...* (2); *A Social psychological perspective* (2); *Morpho-syntactic complexity: ...* (6); ... : *A relevance-theoretic reappraisal* (2). Given the fact that all the journals dealt with linguistic issues, it seems interesting that some of the fixed, established terminological clusters displayed even semantically rather redundant premodifiers, such as linguistic, language, etc., e.g., *Language variation and ethnic identity* (2); *Linguistic repertoire and ethnic identity in New York City* (2); rather than **Variation of language... *Repertoire of language*. Significantly, such premodifiers were at times missing altogether, presumably due to compression and language economy, e.g., *The acquisition of prosody in American Sign Language*, as against the respective KW set: *language acquisition, sign language, prosody, phonology, American Sign Language* (6).

Moreover, English being an analytic language, preposing a noun before another noun converts the former into a syntactic adjective. Hence, wherever the nominal term seemed well-established, it was simply preposed before another noun and thus converted, and no derivation process had to take place (e.g., *Reference Constraints and Information Structure Management in Kokama Purpose Clauses* (5); rather than **referential constraints; *infor-*

mational structural management..., although the two structures are virtually equivalent in meaning. Sometimes the comparison between the KW sets and titles did nevertheless reveal derivation, e.g., *Reformulation* (as a KW) as against the title: *Reformulative apposition and clausal ellipsis* (1), typically traced in denominal adjectives. In this case the two structures would not be semantically interchangeable. Obviously, extensive use of derivational suffixes or function words (in postmodifications) could be undesirable, since it would counteract the endeavour to keep the titles short.

Hence it seems that for premodifying functions in titles, the authors were prone to select chiefly notions which were considered well-established in the community of practice sharing the specialized knowledge, taken for granted at least to some extent, or even partly redundant, while for the postmodifying functions they opted for those that were communicatively more significant. This, however, did not exclude occasional use of various stylistic devices (such as parallelism) through which even the pre-position becomes more attention-drawing.

4. Research results – keywords

4.1 Keyword typology

The above findings on RA titles will now be set against the background of KW tendencies. In fact, similar to academic titles, the KWs also fell into two syntactic groups: single (graphic) words (hereinafter simple KWs), e.g., *Homophones* (4), as well as multi-word combinations, chiefly NPs (hereinafter complex KWs), e.g., *speech perception* (4). The simple KWs (45.18% of all) were outnumbered by the complex ones (54.82% in total). Nonetheless, two journals defied this tendency, as one exhibited an equal share between simple and complex KWs (1) and another (5) in fact reversed the ratio. Hence, even KW sets appear to be affected by house style patterns. The simple KWs were mostly syntactic nouns (or were converted into syntactic nouns, which was indicated co-textually, e.g., by their mere positioning among other syntactic nouns, or by other means, such as graphic, e.g., ‘*Now*’(1); ‘*Then*’ (1), with very few exceptions.

4.2 Keywords – quantitative and qualitative analysis

Comparing the syntactic relationships within the complex KWs with the titles, one can notice some conspicuous patterns, namely the absence of predication (and complementation), a marginal share of both coordination (e.g., *onset and coda consonant* (4) and apposition (e.g., *False Cognates (Camouflaged Forms)* (2), with the two constituting solely 1.06% of the complex KWs; and the clearly dominant role of modification (e.g., *historical linguistics* (5), (6), accounting for 98.70% of the complex KWs. It should be noted that the corpus also included two odd instances (0.24%, e.g., *outside-in* (3).

Further investigation showed that within complex KWs with modification (98.70%), premodification (*phonological encoding* (4) prevailed strikingly over postmodification (*ideologies of difference* (2), since the percentage of instances of the former was 96.11%, compared to only 2.59% of the latter, including cases where postmodified KWs were also

premodified (*syntactic realization of illocutionary forces* (1)). Interestingly, three specimens of the former premodification group even exhibited coordination of premodifiers (*onset and coda consonant* (4)). The research revealed that the number of premodifiers was mostly limited to one, since 83.29% of all instances displayed only a single premodifying item. The incidence of two premodifiers (*Discourse temporal connective* (1)) was much lower (14.49%), although there were three additional cases with coordination of pre-modifiers (0.37%). The rate of KWs with three premodifiers (*New York City English* (2)) proved to be noticeably low (1.48%), and the proportion of heads with four premodifiers (*Vaupés River Basin linguistic area* (5)) negligible (0.37%). Hence the number of premodifiers in KWs seems to be inversely related to their frequency. Tellingly, if we disregard the simple KWs, the average length of the complex ones corresponds to 2.02 words.

5. Discussion

5.1. Comparison of titles and kws

Titles were composed mostly of one or two units, and displayed all syntactic relationships, viz. predication, complementation, coordination, modification and apposition. They entered intertextual (e.g., very likely to be cited) as well as intratextual relationships. In contrast, a single KW set embraced a number of KW units, in the data between two and ten, typically five. The scale of syntactic relationships proved to be restricted, with predication and verb complementation not featured at all. A prototypical KW corresponded to a modified NP. KW sets seem to be motivated rather pragmatically, and, unlike the titles, they are not likely to be cited. Furthermore, the KWs are syntactically more uniform and stereotypical, whereas titles tend to be more diversified, in line with the writer's communicative intent, creativity, style, strategy, and the like, allowing for the integration of core disciplinary concepts in one or two title structures. Hence, in the titles the mutual relationships between the concepts are marked explicitly. On the other hand, KW sets are characterized by atomization, the mutual relationships between the individual KWs in sets being only implied, inferable with the help of background disciplinary knowledge, since their mere juxtaposition is expected to activate the particular cognitive frame, with the formulation and sequencing of KWs failing to suggest explicitly any hierarchy or emphasis.

Notwithstanding the differences noted above between titles and KWs, in the data, nominality proved to be one of the shared features, with the modifiers carrying the Rhythmic functions. It was shown that an overwhelming majority of title NPs featured postmodification or largely postmodification. This convincingly corroborates the tendency observed by Dušková (2015: 347) for NPs to be construed first with postmodification and, when reiterated, with premodification. Indeed, the NPs are first mentioned in the titles and when re-expressed in KWs, they have already become context-dependent. However, other factors may also be at play. For example, through their integration into one or two syntactic constructions in titles, some heads of various well-established terminological bundles, listed mostly as disparate KWs, were frequently deprived of their head (NP) status and turned into modifiers of title heads instead, e.g., KW: *Chinese attitude-bearing*

wh-questions; Second language; Computational complexity; L1 transfer vs. Title: *The effect of computational complexity on L1 transfer: Evidence from L2 Chinese attitude-bearing wh-questions*. (1) In this context the role of the recurrent nominal heads, as a rule missing in KW sets, seems to be crucial (e.g., *effect, evidence*, see above). However, the analysis conducted here suggests a variety of other reasons for the occasional use of premodifying functions in NP titles on their first mention.

5.2. Global theme encoded in titles and kws

In Pípalová (2008 a, b: esp. 99–111) the content aspect of Textual Themes, including the Global Theme, is conceived of as composed of three cognitive layers, resembling a pyramid. The narrowest layer embodies its most conspicuous, foregrounded element(s), the central layer embraces a number of interrelated, regularly co-occurring elements organized in a cognitive structure or content frame. The lowest and broadest layer, simultaneously the most diffuse of all, involves all the backgrounded elements, established in the particular speech event.

With regard to the way the Global Theme was found encoded in the title data, several approaches were noticed. Some authors decided to opt for the formulation of the Theme in the narrowest sense, identifying only its most conspicuous, foregrounded element, e.g., *Gitsan Modals* (5). Such practice was in line with deliberate strategic vagueness, but might simultaneously leave the recipient all at sea in many relevant respects. Most researchers therefore favoured the Global Theme in its broader meaning, which, apart from identifying the Theme in the narrow sense, also contextualized it within the particular disciplinary or research cognitive frames: e.g., *A Corpus-based Study of Fillers among Native Basque Speakers and the Role of Zera* (4); *A sociolinguistic view of null subjects and VOT in Toronto heritage languages* (1); *Consonants are More Important than Vowels in the Bouba-kiki Effect* (4). As a result, the titles proved to be longer, and being packed with more information and in line with the densification of discourse, they not only provided the reader with the Theme in the narrow sense (*fillers*), but also suggested the disciplinary background (*sociolinguistic view*), identified the informants (*Native Basque Speakers*), the approach (*Corpus-based*), the data (*Toronto heritage languages*), anticipated some of the results (*Consonants are More Important than Vowels in the Bouba-kiki Effect* (4), and the like. Hence, such patterns seem to encode the top and central layers of the Global theme framework. Elements of the lowest layer, which encompasses the established, backgrounded components of the communicative event, such as the producer, the recipient, the genre, research or discourse, were encoded for instance in non-finite titles (suggesting the implied producer/recipient, and the like, see above), e.g., *Examining the Acquisition of Phonological Word Forms with Computational Experiments* (4); in interrogative structures invoking the recipient, e.g., *Does deliberate metaphor have a future?* (3) and in titles constructed as PPs, implicitly pointing to the research, genre or discourse, e.g., *On reference work and issues related to the management of knowledge*: (3).

In contrast, KW sets seldom encoded elements of the lowest Theme layer, but did feature components of both the top and central layers (KW: *Sociophonetics* (central layer of the Global theme, disciplinary background); *Canadian English* (Central layer, data);

Mormon dialect (central layer of the Global theme, particular data and informants); *Vowels* (top layer of Global theme); *Vowel raising* (top layer of Global theme), as against the Title: *Vowel patterning of Mormon in Southern Alberta, Canada* (2). Compared with the Title encodings, the major difference seems to be the failure of KWs to hierarchize such elements and layers. Instead, they are merely juxtaposed for the sake of search engines and/or for a possible check of conceptual familiarity on the part of the potential processor.

6. Conclusion

This paper explored syntactic and FSP aspects of RA titles and KW sets in six renowned linguistic journals. In contrast to the relatively homogeneous and syntactically rather stereotypical KWs, the titles were shown to exhibit a wide range of syntactic relationships and structural realizations. The ultimate choice made appears to reflect the particular author's communicative intent, their originality, strategy or style, the house style of the journal and the patterns established within the particular community of practice. This is in sharp contradistinction to the KWs which rather than reflecting an individual author's creativity, accentuate the conventional pool of established disciplinary knowledge.

Notwithstanding the above differences between titles and KWs, in the data, nominality proved to be one of the shared features, with the modifiers (irrespective of whether premodifiers or postmodifiers) taking on the Rhematic functions. While in complex KWs, premodification convincingly prevailed (96.11%), attesting the prevalent Rh-Th arrangement, in the titles it constituted less than a fifth (18.86% of instances). This finding would appear to corroborate the tendency observed by Dušková (2015: 349) for the NPs, "to be construed with postmodification at the first occurrence and premodification when reiterated". Indeed, it was shown that the NPs are first mentioned in the titles, and when re-expressed in KWs, they have already become context dependent. However, the analysis conducted here also suggests a wide variety of reasons for the occasional use of premodifying functions in titles on their first mention. One source for such premodification can be traced to the prefabricated terminological bundles epitomizing part of the background disciplinary knowledge.

Even though the specialized corpus confirmed the dominant use of nominal titles, it simultaneously pointed to a whole scale of less frequent and even peripheral patterns. The wide range of realizations, serving specific communicative ends, and their respective frequency rates seem to reflect the difference in weight given by authors to at least two conflicting needs, viz. to reinforce the established, conventional patterns and the ambition to stand out from the crowd and to draw attention to one's own research.

Whatever the realization selected, most titles, in contrast with most KWs, were found to be in line with the rising CD, placing their Rhemes finally. Such an arrangement is well-suited to all three title functions, viz. the Ideational function (e.g., identifying the Global theme in the narrow sense and possibly also giving relatively ample space to contextualize it, to hierarchize its elements and show emphasis), the Interpersonal function (e.g., the endeavour to be reader-friendly, inviting rather than deterring the readership, and facilitating smooth, on-line processing) and the Textual function (e.g., establishing

intratextual, intertextual and interdiscursive relationships, with the Rhemes likely to trigger prominent, focal or text exhaustive, cohesive chains). The research demonstrated that very few titles encoded only the top layer of the Global theme content, while a decisive proportion were long enough to accommodate the central layer, and at times elements of the lowest also. In this way, the authors seem to strike the right balance between the need for strategic vagueness and that for discourse densification. Admittedly, the results of the present research cannot but be preliminary, being established on a corpus of limited size. More extensive research would therefore be necessary to verify the tentative results.

Symbols and Abbreviations

AMB:	Ambiguities
CD:	Communicative Dynamism
CL:	Clause
FIN:	Finite (verb)
FSP:	Functional Sentence Perspective
KW:	Keyword
NON-FIN:	Non-Finite (verb)
NP:	Noun Phrase
PP:	Prepositional Phrase
RA:	Research Article
V-LESS:	Verbless
VP:	Verb Phrase

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**FORMULACE/UCHOPENÍ GLOBÁLNÍHO TÉMATU V ODBORNÝCH
ČLÁNCÍCH: SYNTAKTICKÉ A AKTUÁLNĚČLENSKÉ PARAMETRY
ODBORNÝCH TITULŮ A KLÍČOVÝCH SLOV**

Resumé

Odborné tituly a soubory klíčových slov jsou ve studii koncipovány jakožto dvě různá uchopení či formulace globálního tématu odborného textu. Studie se věnuje zejména titulům anglicky psaných odborných článků a zkoumá jejich syntaktické a aktuálněčlenské tendence. Opírá se přitom o specializovaný korpus složený z nejnovějších odborných článků otištěných šesti renomovanými mezinárodními lingvistickými časopisy. Odborné tituly i klíčová slova se probírají z hlediska Hallidayovské funkce ideační, interpersonální a textové/textotvorné. Studie dále přináší zejména typologii syntaktických struktur, které se ve zkoumaném korpusu objevily, poznatky o jejich poměrném zastoupení a analýzu jejich aktuálněčlenských parametrů. Určitá pozornost se též věnuje porovnání odborných titulů a klíčových slov, a to jak z hlediska výrazných syntaktických, tak i aktuálněčlenských tendencí. Studie poukazuje zejména na převahu nominálních struktur v obou dílčích odborných útvarech, na podstatně pestřejší škálu syntaktických konstrukcí uplatněných v titulech oproti poměrně jednotvárné realizaci klíčových slov, na převahu postmodifikace u titulů na straně jedné a na typickou premodifikaci u klíčových slov na straně druhé, jakož i na obvykle stoupající škálu komunikačního dynamismu u odborných titulů v protikladu k opačné tendenci zjištěné u klíčových slov. Studie přináší též poznatky o poměrně značné délce anglických odborných titulů, která skýtá dostatečný prostor nejen pro nastolení samotného obsahového jádra globálního tématu, ale též pro jeho explicitní zasazení do příslušného odborného kontextu.

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