

# METADISCURSIVE CLAUSES CONTROLLED BY NOUNS AND ADJECTIVES IN LINGUISTICS RESEARCH PAPERS

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## Abstract

This study attempted to investigate the metadiscursive function of stance complement clauses in linguistics research papers, analysing the most common metadiscursive nouns and adjectives. To this aim, twenty research papers published in two indexed journals – the *Journal of English for Academic Purposes* (EAP) and *Discourse and Interaction* (DI) were analysed using Biber's (2006a) taxonomy of lexico-grammatical stance devices. The findings indicated that academics prefer epistemic nouns to attitude and communication nouns in the selected corpus, yet evaluation adjectives are preferred to epistemic adjectives in the corpus under study. Moreover, the study tries to analyse the distribution of stance complement clauses and the IMRD structure of a linguistics research paper with the highest incidence of stance complement clauses controlled by nouns and adjectives in the Results section.

## Keywords

academic discourse, linguistics research paper, stance complement clauses controlled by nouns and adjectives, metadiscursive nouns and adjectives, IMRD structure

## 1 Introduction

In recent decades considerable attention has been paid to linguistic patterns in scientific research papers, and to how they express authors' attitudes to various topics investigated in their studies. The concept of metadiscourse has been examined by many scholars (see Biber 2006a, 2006b; Dontcheva-Navratilova, 2018, 2021; Flowerdew, 2003; Jiang, 2017; Jiang & Hyland, 2019; Walková, 2019; Warchał, 2015; Wu & Paltridge, 2021; Zou & Hyland, 2022), with attention given to various aspects of language devices that contribute to an overall understanding of propositional content such as disciplinary variations or grammatical vs pragmatic conceptions of metadiscourse in academic research writing. Despite the growing research into metadiscourse, very few studies have analysed the concept of stance nouns and adjectives controlled by complement clauses. This is due to the fact that stance nouns and adjectives are relatively rare in terms of their use and distribution in academic research writing, in comparison with stance complement clauses controlled by verbs. Yet their potential value lies in modulating discourse by both pre- and post-predicative functions (Examples 1 and 2) in contrast to stance complement clauses controlled by verbs and their post-predicative function (Example 3).

- (1) *The fact **that the differences between native and non-native expert writers were almost unnoticable also confirms that the challenges non-native novice writers face might stem largely from lack of disciplinary expertise and awareness.*** (EAP corpus, Marti et al.: 110)
- (2) *As such, it seems possible **that the writers of the AL introductions with the IME or IM pattern might have sought to avoid this delay by presenting the study at the outset.*** (EAP corpus, Kawase: 24)
- (3) *It has long been acknowledged **that certain words tend to co-occur in specific configurations.*** (EAP corpus, Omidian et al.: 3)

It is generally known that the choice of complement clause types depends on many different factors. In Biber et al. (2002, p. 350) approach, this choice is predominantly influenced by three main aspects: registers (with *that*-clauses prevalent in spoken registers and *to*-clauses in written registers), structural (with the clauses in the pre- and post-predicative functions mentioned above), and semantic factors (with relatively common use of extraposed clauses in written academic prose).

With these three factors in mind, stance nouns and adjectives reflect the compressed nature of academic writing with reference to the true nature of evaluated proposition. From a pragmatic analysis perspective, the study of stance adjectives and nouns combined with complement clauses is of interest because of their potential to express persuasive, evaluative, and argumentative meaning in various academic genres.

Thus, the aim of this paper is to analyse the distribution of stance complement clauses controlled by nouns and adjectives in linguistics research papers, to find the most frequent metadiscursive nouns and adjectives, and to explore the distribution of these metadiscursive nouns and adjectives across the rhetorical sections of linguistics research papers. The study seeks to answer the following questions:

1. What is the general frequency of stance complement clauses controlled by nouns and adjectives in the corpus of linguistics research papers?
2. Which metadiscursive nouns and adjectives become the most frequent in the above-mentioned corpus and what are their metadiscursive functions?
3. Following a standard structure of the research paper proposed by Swales (1990), what is their distribution in the IMRD structure of a research paper?

## 2 Metadiscursive nouns and adjectives

The concept of stance nouns as mainly abstract nouns which modulate discourse by assessing the credibility of a propositional concept has attracted increasing attention since the late 2000s. Considerable literature has focused on analysing *that-clauses* in two different corpora, for example, Charles' (2007) work on the construction of stance via *noun that patterns* investigates disciplinary variations in two contrasting disciplines (two corpora of theses from social and natural science) in the construction of stance nouns followed by a complement clause with a considerable preference for *noun that patterns* in social science corpus. For Charles (2007), nouns with *that* complementation are viewed as a sub-group of shell nouns (a term introduced by Schmid (2000), a unique group of nouns the meaning of which is activated by their use). Interestingly, in her view inspired by Francis et al. (1998), *the noun that pattern* was subdivided into five semantically oriented groups: idea, argument, evidence, possibility, and other, with the most frequent idea group (thought process nouns, e.g., "This is based on the assumption that...") in the politics corpus and the other group (e.g., factual nouns, such as "It does not refer to the fact that...") in the material corpus. In both corpora, possibility nouns appeared only to a limited extent. Charles' (2007) findings confirm a considerable tendency for using epistemic certainty nouns in hard science, and nouns which are more tentative, argumentative, and attitudinal in soft science. Among the other studies in this area are those of Parkinson (2013), and Kim and Crosthwaite (2019). Parkinson's (2013) research explores *that-complement clauses* in ESL students reports on questionnaire survey data and research articles that focus on the frequency of controlling words, the content of and sources of *that-clauses* in the above-mentioned corpora, and Kim and Crosthwaite's (2019) study deals with disciplinary differences in the use of the evaluative *that* in business and medicine.

Quite similarly, on the grounds of disciplinary variations, Hyland and Jiang (2016) and Jiang and Hyland (2017a, 2017b, 2021) refer to stance nouns as metadiscursive nouns "which are essentially evaluative and engaging, rather than cohesive, helping to convey a writer's perspective on the content the noun refers to" (Jiang & Hyland, 2021, p. 5). It is important to note that in their understanding, these nouns refer to both interactive and interactional functions, expressing entities, describing attitudes, and analysing relations between entities. In terms of disciplinary writing, their research on metadiscursive stance nouns revealed the increased tendency for nominalisation in academic practice in research articles over the past 50 years in three corpora (1965, 1990, 2015), analysing the most common lexico-grammatical patterns with nouns (*this N*, *N be clause*, *N+nominal*, *this be N*) with *this N pattern* as the most frequent

across the 50 years. Their findings indicate that “there has been a substantial 31% increase in the use of *evaluative-that constructions* over the past 50 years” (Jiang & Hyland, 2019, p. 153). Additionally, their modified classification of evaluative *that* construction (p. 152), based on the previously published model by Hyland and Tse (2005), clearly defines four major aspects of evaluative *that*, and inspired much other authors’ research on stance devices in academic writing (Kim & Crosthwaite, 2019). In Jiang and Hyland’s (2019, p. 152) model, an evaluative *that-clause* is interpreted with regard to the evaluated entity (e.g., “Our research results show that...”), the evaluative stance (e.g., “I hope that...”), the evaluative source (e.g., “Johnson notes that...”) and the evaluative expression (e.g., “This demonstrates that...”).

As mentioned above, a considerable amount of literature has focused mainly on the role of metadiscursive nouns in academic writing, so the concept of metadiscursive adjectives has been entirely neglected. The pioneer in this field is Douglas Biber (2006a, 2006b). His research focuses on grammatical variations among university registers, analysing the model of stance nouns and adjectives (stance adjective plus *that-clause/to-clause* and stance noun plus *that-clause/to-clause*) in various academic registers. His study is based on four registers from the above-mentioned corpus (classroom teaching, class management talk, textbooks, and written course management) and produces interesting results. In his view, stance has been analysed as a grammatical phenomenon or a linguistic mechanism which aims to modulate the propositional content of an utterance via stance devices of all grammatical types: modals, adverbs, and complement clauses. His in-depth research results confirm *that to-clauses* controlled by nouns and adjectives are much more common than *that-clauses* controlled by nouns and adjectives in written university registers. Biber’s (2006a) taxonomy of lexico-grammatical stance devices clearly shows that stance can be expressed via linguistic devices of many different types, with their predominant use in spoken academic registers. His lexico-grammatical model for stance analysis offers a valuable insight into other sub-types of stance-forming devices, with a prevailing tendency for certainty nouns and adjectives across registers. In his view, stance adjectives are subdivided into single adjectives and complement clauses which form the scope of this study.

Even though Biber’s (2006a) investigation was aimed at various academic written registers (such as textbooks, course packs, syllabi, or institutional writing), his study completely overlooked academic research papers. All the above-mentioned studies show that metadiscursive nouns and adjectives in academic discourse are important grammatical devices for expressing a writer’s opinion, for maintaining indirect contact with readership, and evaluating in(direct) commitments to the truth of propositions.

### 3 Data and methodology

#### 3.1 Corpus

The present research aims to analyse the distribution, functions, and frequency of complement clauses controlled by nouns and adjectives in the corpus of linguistics research papers. Moreover, it tries to analyse the distribution of stance complement clauses across the rhetorical sections of research articles proposed by Swales (1990), who developed the IMRD framework (which refers to Introduction-Method-Results-Discussion used in empirical research in natural and social sciences).

An analysis of stance nouns and adjectives was carried out on the corpus that comprised 20 research papers published in two indexed journals – the *Journal of English for Academic Purposes* and *Discourse and Interaction*. These two journals were selected because they are prestigious journals in the field, they are indexed in international databases and follow a standard procedure for submitting manuscripts (all papers sent to the journals are first reviewed by editors for suitability; then two reviewers make comments with a recommendation to accept, rewrite and resubmit, or reject the paper). All selected research articles were published in 2016–2021 by non-native writers of English, and the corpus in the study consists of 188,246 running words with 457 stance complement clauses controlled by nouns and adjectives. It should be noted that this study is not aimed to be contrastive and comparative, even though it consists of EAP corpus (research papers from the *Journal of English for Academic Purposes*) and DI corpus (research papers from the *Discourse and Interaction* journal). To ensure the study's accuracy, the texts were first manually cleared of abstracts, footnotes, tables, and references, secondly the corpus data was converted into text files to enable automatic annotation by AntConc (Anthony, 2019), and thirdly the raw frequencies of metadiscourse marker tokens in the research papers were counted. Raw frequencies of items were then converted into frequencies per 1,000 words. Finally, a manual reading and analysis of the metadiscursive nouns and adjectives was carried out for a qualitative investigation of the data.

#### 3.2 Analytical framework

This study uses Biber's (2006a) model of common lexico-grammatical features for stance analysis, focused on the attribution of stance in written and spoken university registers (pp. 92–93). In his framework for the study of stance (Table 1), stance is grammatically realised by modal verbs, stance adverbs, and complement clauses controlled by stance verbs, adjectives, and nouns in various genres of academic discourse.

1. Modal and semi-modal verbs		<i>In a certain case the majority <u>must</u> agree.</i>
2. Stance adverbs		<i><u>Unfortunately</u>, it is not a matter of what we decide.</i>
3. Complement clauses controlled by stance verbs, adjectives, or nouns	STANCE COMPLEMENT CLAUSES CONTROLLED BY VERBS	<i>Other authors <u>argue that they have different priorities for representing their research in academic journals.</u></i>
	STANCE COMPLEMENT CLAUSES CONTROLLED BY NOUNS	<i>Stance noun+that-clause</i> <i>Their findings <u>stress the claim that academic writing is shaped by an author's academic background.</u></i> <i>Stance noun+to-clause</i> <i>The <u>tendency to devote a separate section for acknowledgments</u> has also been noted by the interviewees.</i>
	STANCE COMPLEMENT CLAUSES CONTROLLED BY ADJECTIVES	<i>Stance adjective+that-clause</i> <i>It also seems <u>obvious that the expression of stance is shaped not only by culture.</u></i> <i>Stance adjective+to-clause</i> <i>It is <u>important to consider some other aspects of the abovementioned model.</u></i>

Table 1: Common lexico-grammatical features used for the stance analysis by Biber (2006a)

In Biber's view, complement clauses are viewed as one of the main grammatical devices to overtly mark stance. Their potential value lies not only in their metadiscursive functions, but also in the way they grammatically signal the subordinating and coordinating part of the utterance, that is, how they modulate the proposition (a noun or an adjective phrase) by a subordinating clause, as for instance in Example (4) with the metadiscursive adjective in the post-predicative position and follow-up complement *that-clause* (Hyland & Tse, 2005; Kim & Crosthwaite, 2019):

- (4) ***It seems paradoxical that** such negative, even chaotic discourse as above should induce well-planned, conventional discourse and wishful thinking that "writing for immediate consumption" requires "a more disciplined approach to writing".*  
 (DI corpus, Schmied: 102)

Quite similarly, metadiscursive adjectives with a dependent clause allow the researcher to assess the credibility and potential value of a proposition that is grammatically realised by a dependent clause.

Based on Biber's (2006a) research, stance nouns/adjectives are quite dense in academic discourse and cannot be viewed as the main grammatical devices for marking stance; their importance lies in the way they modulate sentence structure by assessing the reliability and adequacy of a statement as in Example (5) with the postponed subject and the anticipatory subject *it*.

- (5) *It thus became plain that many of these occurrences were linked to online planning and lower certainty...* (EAP corpus, Szczyrbak: 80)

If we compare the use of stance nouns/adjectives modified by dependent clauses, we can find certain similarities with stance verbs and their complement clauses. The most important similarity is that academic writers use these clauses to protect themselves from possible criticism, and to establish a(n) (in)direct contact with their readership (Kozáčíková, 2021, p. 21), another similarity is that in all these examples, the evaluation is followed by an evaluated entity (Kim & Crosthwaite, 2019, p. 3).

## 4 Results and discussion

### 4.1 Stance complement clauses controlled by nouns

The proportion of complement clauses controlled by metadiscursive nouns and adjectives was first compared. The quantitative analysis results are given in Table 1.

Clause type	Raw No.	Per 1,000 words	% of total SCC
<b>1. Stance complement clauses controlled by N</b>	<b>352</b>	<b>1.86</b>	<b>77.0%</b>
a. Stance THAT-clauses	234	1.24	51.2%
b. Stance TO-clauses	118	0.62	25.8%
<b>2. Stance complement clauses controlled by A</b>	<b>105</b>	<b>0.55</b>	<b>23.0%</b>
a. Stance THAT-clauses	43	0.22	9.4%
b. Stance TO-clauses	62	0.32	13.6%

**Table 2: Frequency of stance complement clauses (SCC) controlled by nouns and adjectives**

From the above-mentioned results, it is quite evident that the proportion of stance complement clauses controlled by nouns is higher (77%) than the proportion of adjective-controlled clauses (23%) in the corpus. This may result from the tendency for nominalisation, which is a common technique in academic writing (Biber et al., 1999, as quoted in Hyland & Jiang, 2021, p. 3) and because nouns are the most frequent word class in English which – apart from various roles in academic discourse – also function as a conceptual shell (Schmid, 2000), metadiscursive noun (Hyland & Jiang, 2021) and stance noun (Biber, 2006b).

Table 3 presents the overall distribution of stance complement *that*-clauses together with their normalised frequencies per thousand tokens in the corpus.

Stance nouns	Raw No.	Per 1,000 words	% of total SCC
<b>1. EPISTEMIC NOUNS</b>	<b>197</b>	<b>1.04</b>	<b>84.2%</b>
Certainty	155	0.82	66.2%
Likelihood	42	0.22	18.0%
<b>2. ATTITUDE NOUNS</b>	<b>25</b>	<b>0.13</b>	<b>10.7%</b>
<b>3. COMMUNICATION NOUNS</b>	<b>12</b>	<b>0.06</b>	<b>5.1%</b>

**Table 3: Stance complement *that*-clauses controlled by nouns**

From the quantitative analysis, it is clear that in the corpus of linguistics research papers, writers prefer to use epistemic nouns (84.2%, either of certainty or likelihood) in their research papers, followed by attitude and communication nouns. Certainty nouns (as their name implies) simply reflect that academic writers are certain (or almost certain) of what they present, referring to facts, principles, analyses, and general statements – as in Example (6) with the epistemic head noun *the fact*, or Example (7) with the likelihood/probability head noun *claim*.

- (6) *We admit **the fact that** the umbrella term of Thesis Discussion section could take a broad range of configurations and disciplinary variations...* (DI corpus, Bahardofar: 30)
- (7) *Their findings stress **the claim that** academic writing is shaped by the writer's disciplinary background.* (DI corpus, Ebrahimi: 7)

Communication stance nouns (e.g., *proposition*, *note*, *comment*) which are semantically non-factual are the least frequent in the selected corpus (5.1%).

The most common stance nouns can be found in Table 4 with *the fact* as the most common epistemic noun phrase of certainty, modal noun (Liu & Deng, 2017, p. 9), one of the five most common controlling words (*show*, *find*, *think*, *fact*, *report*) in research articles (Parkinson, 2013, p. 440), signalling noun (Flowerdew, 2003, p. 330), or a noun complement construction categorized in the status group of head nouns (Jiang & Hyland, 2015, pp. 13–14). Its leading status in research papers lies in its argumentative power to present a proposition as a universal truth or an acceptable statement by a research community. Quite similarly, the head noun *finding* indirectly evaluates the factual status of information that refers other authors' outcomes (Example 9 with stance complement clause). It is important to mention that adjective relative clauses with relative pronoun *that* were excluded from the analysis, even though they



are used to modify a preceeding noun or pronoun as stance complement clauses and thus, to clarify the author's intention. There are 16 occurrences of adjectival relative clauses with relative pronoun *that* in the corpus. The difference between these two types of dependent clauses is illustrated by the following examples with the head noun *findings*.

- (8) *It should first be mentioned that the very exercise of checking individual items in the frequency lists against the raw data in the corpora rendered **a great number of potentially interesting findings that** lie beyond the scope of the present research.* (EAP corpus, Martinez: 43)
- (9) *This parallels **previous findings that** integral citations were remarkably more frequent in novice than in expert writing.* (EAP corpus, Marti: 106)

Stance noun	Raw No.
FACT	24
STUDY	13
FINDING	12
TENDENCY	11
NEED	11
IDEA	9
ABILITY	8

**Table 4: The most common stance nouns modified by stance *that*-clause and stance *to*-clause**

It is generally known that most scientific papers are prepared according to a standard format called IMRD, as proposed by Swales (1990). In terms of the distribution of the noun complement *the fact* in the above-mentioned parts of a research paper, it is interesting to note that in most cases (11 out of 24, i.e., 45.8%) *the fact* with its prevalent use in the results section of a research paper refers mainly to major findings in research and the evaluation thereof. Additionally, *the fact* phrase is typically combined with inanimate subjects in the initial position of a dependent complement clause (Example 10) in contrast to animate subjects which were used only to a limited extent (Example 11). This may result from academics' tendency to avoid other authors' representation in their papers and to foster an impersonal academic writing character.

- (10) *I also acknowledge **the fact that** global measures employed in this study may not offer nuanced aspects of the structural complexity.* (EAP corpus, Nasseri: 12)
- (11) *It derives from **the fact that** writers need to show explicitly the importance of their study.* (DI corpus, Ebrahimi: 10)

*To-clauses* controlled by nouns are relatively rare in comparison with dependent *that-clauses* controlled by nouns. This is in line with Biber et al. (2002), who claim that “these clauses do not typically present a personal stance” (p. 304). The most common controlling nouns with *to-clause* construction in our corpus include the nouns *tendency* and *need*. It should be emphasized that their use in the corpus strictly depends on their meanings e.g. the noun *need* allows authors to refer to a certain gap in the previous research, and therefore, there is an inclination to place this noun in the introductory parts of research papers (Example 12). In contrast, the noun *tendency* conveys a slightly different trend since it is used in the result-discussion section of a research paper. Its stance meaning is achieved via the evaluation of an author’s or other authors’ previous research findings (Example 13).

- (12) *There is **the need** to re-establish in the eyes of the discourse community the significance of the research field itself.* (DI corpus, Ebrahimi: 6)
- (13) *The analysis also suggested that **a greater tendency** for these writers to include research questions or hypotheses may be a discipline-specific feature.* (EAP corpus, Kawase: 25)

#### 4.2 Stance complement clauses controlled by adjectives

Academic writing is currently viewed as a special type of writing which, more than ever, reflects the strong tendency of academics to communicate and share their ideas, theories, and research findings interactively with their readers and prospective audience. Moreover, in order to be accepted by a research community, academics need to react or refer to the current state of knowledge and critically approach it from different perspectives. According to Hyland (2010), academic texts typically consist of “careful evaluations and interactions” (p. 116). Several other studies (e.g., Kaatari, 2013; Mindt, 2011) support the fact that the complementation of adjectives serve – with some other grammatical constructions – as one of the main grammatical means to express an author’s attitudes or viewpoints to written or spoken (academic) discourse.

As for stance complement clauses controlled by adjectives, most of them occur in post-predicative extraposed position and mark an attitude towards the proposition in a dependent clause, either a *that-complement* or a *to-infinitive clause*. Based on the research results mentioned above (Table 2), it is evident that stance *to-clauses* controlled by adjectives are slightly more common (with a normalised frequency of 0.32 per 1,000 words) than stance *that-clauses* controlled by adjectives (with a normalised frequency of 0.22 per 1,000 words) in a selected corpus of linguistics research papers. Table 5 provides an overview of stance complement clauses controlled by adjectives in the selected corpus.

**METADISCURSIVE CLAUSES CONTROLLED  
BY NOUNS AND ADJECTIVES IN LINGUISTICS RESEARCH PAPERS**

<b>Stance adjective</b>	<b>Raw No.</b>	<b>Per 1,000 words</b>	<b>% of total SCC</b>
Epistemic Adj	26	0.14	24.8%
Attitude/Emotion Adj	7	0.03	6.7%
Evaluation Adj	41	0.22	39.0%
Ability Adj	6	0.03	5.7%
Ease/Difficulty Adj	25	0.13	23.8%

**Table 5: Stance complement clauses controlled by adjectives**

Within the context of the analysis of stance complement clauses controlled by adjectives, the most common adjectives combined with stance complement clauses are epistemic adjectives of certainty such as *clear* and *possible*, and evaluation adjectives such as *noteworthy*, *important*, and *interesting*. On the other hand, ability adjectives such as *able* or *willing*, and attitude/emotion adjectives such as *surprised* or *afraid* (which presuppose their use with animate agents and not with abstract rhetors, as in Example 14), were applied only to a limited extent, and their use in the selected corpus was not statistically significant.

- (14) *Of course, readers will always find coherence if **they are willing** to work on it, but it is always polite by writers if they make the work easier for their readers or avoid misunderstandings.* (DI corpus, Schmied: 113)

A generally accepted fact is that agreeing, disagreeing, disputing, and highlighting the most important and interesting research findings are crucial skills for academics when writing research papers, and adopting these skills helps academics to be accepted by the research community. It is therefore no surprise that the most common stance adjectives in the selected corpus are evaluation adjectives with *noteworthy* and *interesting*. The preference for *noteworthy* gives a strong emotional appeal to the research ideas, theories, and findings of which the potential readership should be aware, that is, those research findings that are worth reading, analysing, and remembering. It can be assumed that academics predominantly use stance adjectives combined with *that-complement clause* in the final sections of their research papers (conclusion, discussion, implications) to refer to:

a. important research results

- (15) *Indeed, when we took a closer look at text excerpts from texts that scored high vs. low on adjectival modification and prepositions per noun phrase, **it became clear that the quantitative differences** extended to more qualitative ones as well.* (EAP corpus, Larsson, Kaatari: 11)

## b. unexpected research findings

- (16) *Alternatively, it is possible that this very ambiguity of first-person plural pronouns empowers authors to use the pronouns to a greater extent.* (DI corpus, Walková: 98)

## c. research limitations

- (17) *It was extremely difficult to access student papers that followed the same or similar programs, assessment structure, and assignment types.* (EAP corpus, Marti: 110)

### 4.3 Stance complement clauses and IMRD structure of a research paper

Most research papers currently follow the common research paper structure as proposed by Swales (1990) – IMRD (Introduction, Methods, Results and Discussion), even though in recent decades we have seen a slight change to Introduction-Literature, Review-Results, Discussion-Conclusion patterns (Lin & Evans, 2011; Posteguillo, 1999). In the papers under study, the main standard headings (IMRD) were not followed in all the research papers, so in this study the Literature review section is treated as part of the Introduction, and the Conclusion as part of the Discussion section. It is important to note that in some cases the Results and Discussion sections were blended together, so this section was viewed as a Results section (Table 6).

STANCE CLAUSES CONTROLLED BY ADJECTIVES	105	%
a. Introduction	28	26.7%
b. Methods	12	11.4%
c. Results	65	61.9%
d. Discussion	0	0 %
STANCE CLAUSES CONTROLLED BY NOUNS	352	
a. Introduction	122	34.7%
b. Methods	45	12.7%
c. Results	171	48.6%
d. Discussion	14	4.0%

**Table 6: Distribution of stance complement clauses controlled by nouns and adjectives according to the IMRD structural pattern**

As the results of quantitative analysis show (Table 6), there are no significant differences in terms of the distribution of stance complement clauses controlled by adjectives and nouns according to the IMRD structure. Most arise in the Results section of research articles (61.9% for stance complement clauses controlled by adjectives, and 48.6% for stance complement controlled by nouns) and are least common in the Discussion section (with no stance complement

clauses in the Discussion section). This is partially in line with other authors, such as Dontcheva-Navratilova (2016), who studied the distribution of hedges and boosters across the rhetorical structure of research articles. As she noted “hedges and boosters peak in the Results section and to a lesser extent in the Discussion section” (p. 174). In the research papers under my investigation, the Discussion section was viewed as a separate section only in a limited number of research papers and, as already noted, there was a considerable tendency to blend the Discussion section with the Results section of a research paper. The highest incidence of stance complement clauses in the Results section can indicate that academics present their research results in a more interactive and cautious way, thereby deflecting potential criticism from readers (Example 18), and can also be viewed as a face-saving act for the author.

- (18) *Thus we become **aware of the well-known observation that** “A language is a series of redundancies”* (Halliday & Matthessen 2014: 25; although they use it in a phonetic context!) (EAP corpus, Riazi et al.: 16)

In contrast, the rate of complement clauses in the Methods section (11.4% for stance complement clauses controlled by adjectives, and 12.7% for stance complement controlled by nouns) implies an explanatory and descriptive function of the section, which defines the study design and data collection instruments and procedures. The Introduction is considered to be a problematic section of a research paper, as it is necessary to decide what to include in it and how to arrange the information (Swales, 1990, p. 137). It is interesting to note that there is a tendency to use stance clauses controlled either by nouns (26.7%) or adjectives (34.7%) in Introduction sections of research papers. An analysis of these complement clauses in Introductions indicate that in most of the cases they refer to previous research (Examples 19 and 20) or accepted knowledge in the field (Example 21). In some cases, these clauses also indicate the topic/problem which motivates the research in question (Example 22).

- (19) ***It is interesting that** even Hyland did not include them in the list of code glosses in some other studies* (e.g. Hyland 2005, Hyland 2012). (DI corpus, Guziurová: 40)
- (20) ***It is thus clear that** linguistic complexity can be studied at different levels of abstraction; in fact, studies on the topic increasingly operationalize syntactic complexity as a “multidimensional construct”* (Norris & Ortega, 2009), *encompassing both global and more fined-grained measures* (Casal & Lee, 2019). (EAP corpus, Larsson, Kaatari: 3)

- (21) *The distinctness problem refers to **the fact that** global measures confound different linguistic categories.* (EAP corpus, Larsson, Kaatari: 3)
- (22) ***The need to** cite relevant literature in academic writing is also required because knowledge of all topics has been previously developed by others and the main purpose of an academic text is to extend readers' knowledge on a particular topic.* (DI corpus, Arsyad et al.: 28)

## 5 Conclusion

The study described in this paper is based on an analysis of metadiscursive complement clauses controlled by nouns and adjectives in linguistics research papers. Stance complement clauses controlled by nouns and adjectives were analysed on the basis of the model for lexico-grammatical features for stance analysis as proposed by Biber in his work on university registers (1999, 2006a, 2006b) and the IMRD pattern model introduced by Swales (1990). The findings suggest that apart from numerous functions of nouns and adjectives in written and spoken discourse, their function as an evaluative grammatical means in academic discourse is by no means accidental. The results of the investigation have shown that *that-clauses* controlled by nouns are more common than *to-clauses* controlled by nouns, and quite surprisingly, *to-clauses* controlled by adjectives are more frequent than *that-clauses* controlled by adjectives in linguistics research papers. In the selected corpus of linguistics research papers, the most common nouns and adjectives combined with stance complement clauses are epistemic nouns of certainty and likelihood controlled by *that-clauses* (*fact, study, finding, etc.*), evaluation adjectives controlled by *to-clauses* (*noteworthy, important, interesting*), and epistemic adjectives of certainty controlled by either *that* or *to-clauses* (*clear, possible, etc.*). This prevailing tendency for epistemic linguistic devices may result from the fact that “linguists tend to argue more explicitly” (cf. Dontcheva-Navratilova, 2018, p. 160), and from the inclination to express the degrees of truth (the speaker’s degree of commitment to the proposition expressed) and their strong commitment to research findings.

The frequent distribution of stance complement clauses controlled by adjectives and nouns according to the IMRD structure (Swales, 1990) in the Results section, displays the ongoing writers’ tendency to present research results and findings in a reader-centred way, appealing to shared knowledge in the field and their own research outcomes. The present research naturally has limitations due to the size of the corpus and due to a limited research sample which consists of only two academic linguistics journals. Even though the corpus is relatively small, and further research is needed in order to shed more light on the presented phenomena, it is believed that the results can serve as a starting

point for a wider-scope analysis. Obviously, further research involving more linguistics research papers would be required to verify the above mentioned findings. Moreover, it would be interesting to analyse the use of metadiscursive clauses by native and non-native writers of English and to compare similarities, and differences in the use of these clauses in two or more journals from different disciplines in order to reveal disciplinary differences of the above mentioned structures.

Nowadays, due to the pressure to publish, academics are more aware than ever of how research results are disseminated to prospective readers, colleagues, and academia. This trend is clear in the lexico-grammatical choices that academics make to express their commitment to factual information in research papers. The stance-making role of nouns and adjectives is indisputable, since they shape discourse by making it more interactive, dialogic, and communicative.

In conclusion, this study's findings show how stance-taking devices in the genre of linguistics research papers shape discourse and confirm their importance in discursive practise.

### Acknowledgement

This work was supported by the Slovak Research and Development Agency under the Contract no. APVV-23-0223.

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