UNIVERSITY OF MURCIA

International Journal of English Studies

IJES

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It-clauses with Adjectival Predicates in English-medium Articles: Disciplinary and Linguacultural Considerations

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Received: 25/03/2024. Accepted: 05/02/2025.

ABSTRACT

This article examines *it*-clauses with adjectival predicates in 240 English-medium articles by Polish and Anglophone authors representing medicine and psychology, aiming to investigate how disciplinary and linguacultural constraints affect the frequency, in-text distribution, and semantic, syntactic, and lexical variability of the structure. The study attempts to address a gap in previous research, which has not yet compared these two disciplines and linguacultural contexts to reveal how they differ in their use of the device to express the writer's stance. The results show that *it*-clauses are significantly more frequent in psychology and that the disciplines differ in the degree to which they exploit various aspects of the evaluative potential of the structure, although both use it most heavily in discussions, and prioritize *to*-infinitive clauses and evaluative predicates. The latter preference, as the study reveals, is marked only in Polish articles, where prominence is given to those features of *it*-clauses that are frequent in popular and non-native English writing. The features preferred in Anglophone articles are more typical of proficient writing.

KEYWORDS: *It*-clauses; Academic Writing; Disciplinary Variation; Linguacultural Variation, Corpus-based Analysis.

1. INTRODUCTION

The term "*it*-clauses" was introduced by Hewings and Hewings (2002) to refer to the structure consisting of two subjects: an introductory *it* with no anaphoric reference, and a nominal

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Print ISSN: 1578-7044; Online ISSN: 1989-6131
doi: 10.6018/ijes.609701

clause, as in *It is challenging to study chemistry*. The first element is followed by a matrix predicate, usually consisting of a copula verb and a subject complement, which together have thematic status and indicate the writer's stance on the content of the proposition clarified by the second element (Herriman, 2000, pp. 582–583). *It*-clauses are useful for commenting on and evaluating propositions, while reducing personal involvement. The personal and subjective is disguised by the impersonal pronoun *it*, which attributes the opinion to an undefined external source, depersonalising the writer's voice and creating the impression of objectivity. Therefore, *it*-clauses are common in academic prose (Biber et al., 1999; Zhang, 2015), but difficult for non-English writers to master (Rowley-Jolivet & Carter-Thomas, 2005).

The use of *it*-clauses in academic writing has been explored across disciplines, showing their higher frequency in research articles (RAs) in the soft fields (Peacock, 2011); in linguacultural backgrounds, with a higher number reported in research articles by non-English authors (Mur-Dueñas, 2018); in modes of academic communication, which reveal a higher frequency of these in written conference proceedings than in oral conference presentations (Rowley-Jolivet & Carter-Thomas, 2005); and in both student and expert writing, while indicating the difficulties they pose for the former group (Hewings & Hewings, 2002; Larsson, 2016a). *It*-clauses in academic settings have also been approached from a combined perspective. For example, Groom (2005) examined the structure across genres (RAs vs. book reviews) and disciplines (history vs. literary criticism); Römer (2009), across levels of expertise (apprentice vs. expert), general language proficiency, and native-speaker status; Larsson (2019), across disciplines, native-speaker status, and achievement levels. These studies have shown that the use of *it*-clauses is discipline- and genre-specific, differs across levels of language proficiency and expertise in academic writing, but is less sensitive to native-speaker status. Numerous aspects of *it*-clauses have been studied in academic contexts, including syntactic and lexical variability (Larsson, 2016a, 2019), functions (Larsson, 2017; Peacock, 2011; Römer, 2009), and meanings of main clause predicates (Zhang, 2015).

This corpus-based study aims to complement previous research by investigating the frequency, in-text distribution, and semantic, syntactic, and lexical variability of *it*-clauses with adjectival predicates in English-medium RAs across two disciplines and linguacultural contexts that have not yet been considered. The claim that lies at the heart of this investigation is that academic discourse is not a monolith operating within a single policy framework, but rather a kaleidoscope of different practices that vary "according to disciplinary conventions, cultural expectations and writers' professional status experience" (Gotti, 2009, p. 10). The broader the range of contexts that determine the writing of academic prose and can be explored, the deeper the insight that can be gained into the influence of such factors on the linguo-rhetorical choices that writers make in shaping their texts. These considerations have also

Print ISSN: 1578-7044; Online ISSN: 1989-6131

motivated the adoption of the doubly contrastive perspective of discipline and linguacultural background in the present study.

The disciplines selected for investigation are medicine and psychology, because although "medicine is today a field encompassing aspects (…) from disciplines within the social sciences, such as psychology" (Fløttum et al., 2006, p. 20), it is rigorous and evidence-based, rather than interpretative and introspective like psychology. These two disciplines were chosen over others because they both focus on the human mental and physical condition and are therefore socially relevant fields of study. Also, the use of *it*-clauses with adjectival predicates in their individual writing practices seems to have been overlooked in the existing literature on the subject, in favour of examining the structure in disciplinary writing, for example, in history and literary criticism (Groom, 2005), in linguistics and literature (Larsson, 2019), in business management (Mur-Dueñas, 2015), or in the hard sciences and soft disciplines other than medicine and psychology (Peacock, 2011).

The linguacultural backgrounds chosen are those of Anglophone and Polish scholars, the former operating within the Saxonic intellectual tradition, the latter, within the Teutonic. While the use of *it*-clauses with adjectival predicates has previously been analysed in academic writing by native English speakers (e.g., Dong & Jiang, 2019; Larsson, 2017; Mur-Dueñas, 2015), it has rarely been contrasted with research publications written in English by scholars from other linguacultural backgrounds. However, it is worth noting that Mur-Dueñas (2015) compared RAs written by scholars affiliated to Anglo-American institutions with RAs written by scholars from other linguacultural backgrounds. Although these authors came from different countries, Poland was not represented. In addition, Mur-Dueñas considered them as users of English as a lingua franca, adopting a general perspective, and thus did not address the preferences for the use of *it*-clauses by scholars from each specific linguacultural context. It should also be mentioned that the RAs that Mur-Dueñas included in her corpus were published in international English-medium journals, whereas in the present study two different publication contexts are considered: national for the RAs by Polish scholars, and international for the RAs by Anglophone scholars.

Given the above, it can be expected that both the discipline and the linguacultural context selected for analysis in the present study will lead to differences in the use of *it*-clauses. To verify this expectation, the following research questions will be addressed:

1) Is there disciplinary variation between medical and psychology RAs in the use and variability of *it*-clauses with adjectival predicates?
2) Is there intercultural variation in the use and variability of *it*-clauses with adjectival predicates in English-medium RAs by Polish and Anglophone authors?
3) How can the existing differences be explained?

Print ISSN: 1578-7044; Online ISSN: 1989-6131

It is hoped that the findings of this study will increase academic writers' awareness of culture- and discipline-induced aspects of *it*-clauses with adjectival predicates in English academic prose, and thus inform the design of materials for teaching English for Academic Purposes (EAP). The insights gained from this research can also provide practical guidance to non-Anglophone scholars on how to improve their chances of having their RAs published in international journals. Highlighting how and to what extent their use of the structure in English-medium discourse differs from Anglophone academic conventions can help them realise the full persuasive potential of this important device of academic stance.

2. *IT*-CLAUSES WITH ADJECTIVAL PREDICATES

It-clauses with adjectival predicates constitute the most common syntactic realization of subject *it*-extraposition[i] (Larsson, 2016a, p. 69; Mur-Dueñas, 2018, p. 288; Zhang, 2015, p. 6), an impersonal structure that performs the function of evaluating the state-of-affairs expressed by the following nominal clause. Although the writer is the source of the evaluation, this is not explicitly indicated by lexical means, making such clauses effective persuasive devices to introduce the evaluation at the beginning of the sentence, and what is evaluated at the end of the sentence as new information, without revealing the whole as personal judgement (Dong & Jiang, 2019, p. 33). This way of positioning information in a sentence, as Larsson (2016b, p. 18) notes, "increases the ease of processing" for the reader, who sees the main informational content as a shared attitude due to its postponement. Previous research focusing specifically on *it*-clauses with adjectival predicates has shown that those followed by *that*-clauses are common "in formal, written contexts (…) and 'serious' publications", where they are "used mainly to evaluate possibility and degree of obviousness" (Hunston, 2004, p. 17, p. 22). This is corroborated by other studies comparing different variants of the structure (i.e., taking different clausal forms) across registers, which report its extensive use in academic discourse and limited use in fiction (Dong & Jiang, 2019).

Dong and Jiang (2019, p. 34) note that the adjectival predicates "work as the semantic locus of the pattern and host the evaluative weight of the utterance, thus projecting writers/speakers' evaluation towards the evaluated clauses". There are different semantic classifications of these adjectives that reveal the type of opinion expressed, which is often additionally regulated by the type of clausal form that follows. A good example is Biber et al.'s (1999, p. 673, p. 720) distinction between certainty, affective, and importance adjectives controlling *that*-clauses, and necessity/importance, ease/difficulty, and evaluation adjectives controlling *to*-infinitive clauses; or Groom's (2005) sixpartite division of adjectives along the two clausal forms. What emerges from such classifications is that the meanings conveyed by these evaluative adjectives tend to be regulated by the clausal form they take. Adjectival predicates within *it*-clauses have also been considered in the classifications involving other

Print ISSN: 1578-7044; Online ISSN: 1989-6131

grammatical classes of matrix predicates, including the one proposed by Herriman (2000), which was selected for the present study, as well as those developed, for example, by Collins (1994) or Hewings and Hewings (2002).

Regarding the trends in the use of *it*-clauses with adjectival predicates in academic registers, Groom (2005, pp. 266–267) reveals an emphasis on "validity" meanings in history and literature RAs and on "difficulty" adjectives in book reviews across the two disciplines. Peacock (2011: 82–84) demonstrates the increased frequency of *it is possible that/to*, *it is clear that* and *it is difficult to* in a corpus of science and non-science RAs. Römer (2009, p. 157) concludes that novice writers often use the *it is* (ADV) ADJ *to*-infinitive pattern to express "difficulty" but rarely to convey "desirability" and favour a smaller number of different adjectives than expert writers favour. Mur-Dueñas (2015, pp. 168–170) shows a higher frequency of adjectives expressing attitudinal rather than epistemic evaluation, especially in the RAs by non-English authors. Dong and Jiang (2019, pp. 44, 46) report a preference for the *to*-infinitive clausal form, a heavy use of judgement adjectives, and a large number of evaluations attributed to inanimate entities and concealed agents in the academic registers of the BNC. What emerges from these studies is that *it*-clauses with adjectival predicates are "quantitatively typical of specific genres and thus constitute part of their 'idiomaticity'" (Hüttner, 2007, p. 97), and, therefore, discovering and then mastering various aspects of their use in academic writing may facilitate sounding nativelike.

The above-mentioned characteristics of *it*-clauses with adjectival predicates make them, similar to their variants with predicates representing other word classes, a useful device for the covert expression of an author's stance, understood as their "personal attitudes and assessments" (Gray & Biber, 2012, p. 15). The stance meanings conveyed by the analysed *it*-clauses are encoded in the evaluative adjectival predicates following the impersonal pronoun *it*. This potential of the structure has been recognised, for example, by Hewings and Hewings (2004, p. 101), who consider *it*-clauses as "one particular grammatical device for the expression of stance" and analyse the specific tokens that function as hedges, attitude markers, emphatics and markers of attribution in student and published academic writing in business administration. Larsson (2017, p. 63) also claims that "stance marking is […] the main overarching function" of the structure and develops its six-part functional classification to examine its use as a stance marker, as opposed to a stance-neutral observation, in academic writing by non-native and native students. Similarly, Jalali (2017, p.30) analyses the use of *it*-clauses in student and published writing in applied linguistics, seeing such structures as "a particular structural group of lexical bundles encoding stance expressions" concerned with "hedging, attitude marking, emphasis, attribution and epistemic meanings".

The theoretical framework presented has proved useful for scholars interested in examining the extent to which *it*-clauses with adjectival predicates function as markers of the writer's attitudes or feelings towards the entities or propositions that they are talking about (Thompson & Hunston, 2000, p. 5). However, it was not chosen as a starting point for the

Print ISSN: 1578-7044; Online ISSN: 1989-6131

discussion developed in the present study, as the main aim here is to explore the impact of the author's disciplinary and linguacultural background on the use and variability of *it*-clauses with adjectival predicates in their RA writing. Still, given that the structure is indeed used by writers to position themselves in relation to their claims, a passing reference will be made to the insights that the reported findings may offer into the phenomenon of stance-taking in academic discourse.

3. METHODS

3.1. Corpus

The analysis is based on a corpus of 240 English-medium empirical RAs published in medical and psychological journals in the years 2018–2021. The texts were written by Anglophone and Polish authors, as confirmed by their names and/or academic affiliations. The majority of RAs included in the corpus were multiple-authored, and the names and/or affiliations of all authors were checked. It should be noted, however, that although this method of identifying the authors' L1 has been used successfully in other studies (e.g., Warchał 2015, p. 125; Wood 2001, pp. 78–79), it may involve some margin of error. Only the main text of the articles[ii] was included in the corpus (Table 1), which was compiled according to the following criteria: five journals per discipline and linguacultural context, twelve articles per journal, three per year. Further details of the corpus can be found in the Appendix.

Table 1. Corpus composition.

Subcorpora	**MED**		**PSY**		**Total**	
	RAs	**Words**	**RAs**	**Words**	**RAs**	**Words**
ENG	60	191,965	60	383,398	120	575,363
PENG	60	156,304	60	282,249	120	438,553
Total	120	348,269	120	665,647	240	1,013,916

The RAs were sourced from two different publication contexts: international and national. In particular, the first context is represented by the Anglophone RAs published in high-impact international journals, whereas the second context is represented by the Polish RAs published in local journals, mostly indexed at ERIH Plus and/or Index Copernicus, and published by local universities, publishers, or scientific organisations.

The Anglophone RAs were taken from the following international journals:

- MED-ENG: *The Lancet Haematology* (TLH); *Journal of Orthopaedics* (JO); *International Journal of Surgery Open* (IJSO); *Infection, Disease & Health* (IDH); *Cancer Treatment and Research Communications* (CTRC),

Print ISSN: 1578-7044; Online ISSN: 1989-6131

- PSY-ENG: *Child Abuse & Neglect* (CAN); *Acta Psychologica* (AP); *Psychology of Sport and Exercise* (PSE); *Journal of Applied Developmental Psychology* (JADP); *Additive Behaviors Report* (ABR).

The Polish RAs were taken from the following national journals:

- MED-PENG: *Nowotwory. Journal of Oncology* (NJO); *Acta Angiologica* (AA); *Medical Research Journal* (MRJ); *Cardiology Journal* (CJ); *Advances in Clinical and Experimental Medicine* (ACEM),
- PSY-PENG: *Polish Psychological Bulletin* (PPB); *Roczniki Psychologiczne. Annals of Psychology* (RP); *Polskie Forum Psychologiczne* (PFP); *Advances in Cognitive Psychology* (ACP); *Creativity. Theories – Research – Applications* (CTRA).

3.2. Data Retrieval

WordSmith Tools version 6 (Scott, 2012) was used to find all occurrences of *it* and its co-text in the corpus. The resulting 3,201 concordance lines were manually checked to record only *it*-clauses with adjectival predicates, followed by a declarative clausal form, while eliminating instances that were either followed by an adverbial clause (e.g., *It was fair and balanced, if perhaps a little old*), or that functioned as empty *it* (e.g., *it was windy*) or anaphoric *it* (e.g., *I did not buy the book, as it was expensive*).

Overall, 714 valid tokens were retrieved from the corpus. Seven tokens contained two adjectives, and each was counted separately. Therefore, the calculations made for the semantic classification of adjectival predicates are based on N=721 tokens, while the calculations made for the clausal forms and distribution across RA sections are based on N=714 tokens. The valid tokens represented the following pattern: *it v-link ADJ*, which was followed by a *that*-clause, *to*-infinitive clause or *wh*-clause. Tokens containing an *-ing* clause were not found in the data, possibly because their extraposition is "uncommon outside informal speech" (Quirk et al., 1985: 1393). The *wh*-clausal items included: *what*, *which*, *why*, *how*, *when*, *whether*, *if*[iii], *to what extent*. The linking verbs included: *be*, *seem*, *remain*, *become*, *sound*, and their different tense forms were considered in the analysis (e.g., *remains, seemed, will be*). Tokens with modifying features (N=344) were also considered (e.g., negation: *it is not clear why*). To neutralize the difference in word count between the subcorpora, the frequencies were normalised to occurrences per 100,000 words. Where appropriate, the observed differences were tested for statistical significance ($p<0.05$) using the log-likelihood test (Rayson, n.d.), which was applied to the raw frequencies reported in Sections 4.1., 4.2. and 4.3.

3.3. Analytical Framework

Each RA section has different rhetorical purposes, which may affect the use of *it*-clauses across the sections: the Introduction provides background information, the aims of the study, and its rationale; the Methods describes the materials, tools, and procedures used for the study; the

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Results presents the findings; and the Discussion interprets the results and comments on their significance (Casal et al., 2021; Swales, 2004; Swales & Feak, 2012; Zhang, 2022). The coding of the corpus into sections, identified by explicit headings, posed some problems, however, particularly in the medical articles, where the research conclusion is often provided in the Discussion (Nwogu, 1997). Therefore, to ensure the *comparability of the findings* across the subcorpora, the text segments marked as "Conclusion" were coded under the label "Discussion".

3.3.1. Clausal Forms

According to Dong and Jiang (2019, p. 35), the choice of specific clausal forms (here: *that*-clauses, *to*-infinitive clauses, *wh*-clauses) depends on the meanings to be conveyed, especially when a given adjective takes different types of extraposed clauses. For instance, when followed by a *to*-clause, *possible* means "practicable, can be done" and expresses dynamic modality, but when followed by a *that*-clause, it means "probable, likely to happen" and conveys epistemic modality (Herriman, 2000, p. 597). It is therefore worth exploring whether the construction of meaning through different clausal forms is (dis)similar across the two disciplines and linguacultural backgrounds.

3.3.2. Semantic Classification of Adjectival Predicates

This study uses Herriman's (2000) semantic classification of *it*-clause predicates, as it provides clear-cut distinctions between four main categories of matrix predicates which have been explicitly defined and illustrated with authentic lexical units from the Lancaster-/Oslo-Bergen corpus. The classification covers elements representing different word classes, with adjectival predicates forming the largest group, and has been successfully validated in previous studies (e.g., Zhang, 2015). Herriman (2000, pp. 585–586) considered the following semantic domains:

1) Epistemic modality, which comprises three predicate subtypes, each expressing the speaker's comment on the content of the extraposed clause in the form of: opinion of its *Truth* (e.g., *it is true*/*obvious*), claim of its *Existence* (e.g., *it emerged*), claim of the *Perception* of its existence (e.g., *it occurred to me*),
2) Deontic modality, which comprises two predicate subtypes: "*Obligation*, i.e., the speaker's opinion of the degree of obligatoriness of the content of the extraposed clause" (e.g., *it is mandatory/necessary*) and "*Volition*, i.e., the intention, desire, will of the speaker or a participant in the clause as regards the content of the extraposed clause" (e.g., *it is preferable/desirable*),
3) Dynamic modality, which comprises three predicate subtypes, each concerned with a participant's "ability or power to carry out" the course of action indicated by the

Print ISSN: 1578-7044; Online ISSN: 1989-6131

extraposed clause and conveying the speaker's opinion of: its *Potentiality* (e.g., *it is easy/impossible*) or *Circumstances* (e.g., *it is safe/quicker*), or *Human Attribute* of "the subject of the extraposed clause" (e.g., *it is courteous/arrogant*),

4) Evaluation, which comprises six predicate subtypes, each expressing value judgements about the extraposed clause in the form of the speaker's opinion of: its (un)favourability – *General Evaluation* (e.g., *it is better/good*), "correctness or suitability" – *Appropriateness* (e.g., *it is suitable/right*), "degree of importance" – *Significance* (e.g., *it is noteworthy/important*), *Frequency* (e.g., *it is common/rare*), or who should take *Responsibility* for it (e.g., *it is accidental*), or in the form of the speaker's *Emotive Reaction* to it (e.g., *it is interesting/surprising*).

Additional explanation should be provided for *it is worth noting remembering/etc. that*, which Larsson (2016b, p. 61) classifies as attitude markers; Herriman (2000, p. 597) classifies as prepositional predicates expressing evaluation, while Francis et al. (1998, p. 506) claim that when *worth* occurs in such phrases it conveys a similar meaning to that of *worthwhile*, but "does not behave like an adjective in other ways", since we cannot say that **remembering a poem is worth*. Unfortunately, the literature is not clear on the matter, including Quirk et al. (1985, p. 667, p. 1230), who at one point define *worth* as a "marginal preposition" (e.g., *The book is worth 10 dollars*), but at another see it as an adjective (e.g., *It is worth your going there*). Still, Hunston and Francis (2000, p. 196) acknowledge that in *it is worth noting*, "*worth* has an adjective-like meaning in spite of its preposition-like behaviour". With this in mind, the present study follows Peacock (2011, p. 82, p. 91) in considering instances such as *it is worth noting/highlighting that* as specific realizations of *it v-link ADJ that*.

3.3.3. Modifying Features

To further explore the degree of variability of the studied *it*-clauses, the following modifying features were included in the analysis:

- *that*-deletion (e.g., *it remains essential all surgeons have access*),
- negation (i.e., with *not*: *it was <u>not</u> evident*, with negating prefixes: *<u>im</u>possible*)[iv],
- hedges (e.g., *it <u>seemed</u> inappropriate to*),
- emphasis (e.g., *it is, <u>of course</u>, possible*)
- adjective elaboration (e.g., through prepositional phrases: *it is clear <u>from this work</u> that*; through non-intensifying attributive adverbs: *it is <u>developmentally</u> normative that*)
- markers of logical relations (i.e., addition: *it is <u>also</u> plausible that*; contrast: *it is, <u>however</u>, possible that*; causality: *it is, <u>therefore</u>, vital that*)
- other modifying features (i.e., adverbs of time: *it is <u>now</u> well established that*, adverbs of frequency: *it is <u>often</u> necessary to*).

Print ISSN: 1578-7044; Online ISSN: 1989-6131

4. RESULTS AND DISCUSSION

4.1. An overview

A total of 714 tokens of *it*-clauses with adjectival predicates were considered in the analysis. Table 2 shows the overall frequencies per subcorpus.

Table 2. Overall frequency of *it*-clauses with adjectival predicates per subcorpus.

Subcorpora	MED		PSY		Total	
	Raw freq.	Per 100,000 words	Raw freq.	Per 100,000 words	Raw freq.	Per 100,000 words
ENG	96	50.0	329	85.8	425	73.8
PENG	73	46.7	216	76.5	289	65.8
Total	169	48.5	545	81.8	714	70.4

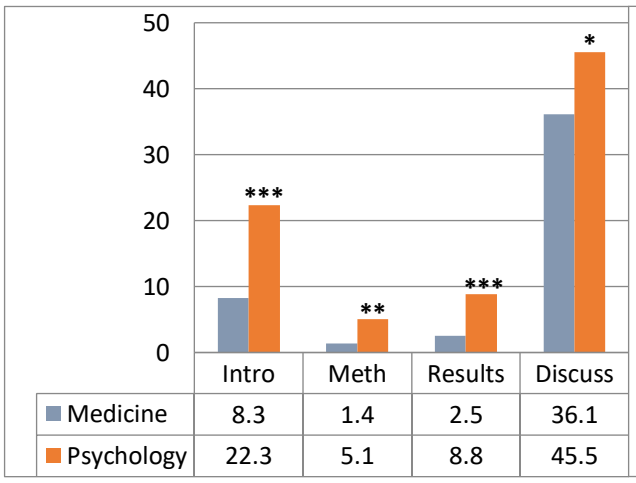
The main statistical difference lies in the cross-disciplinary comparison, with the PSY texts including significantly more *it*-clauses than the MED texts (G^2=38.39, p<0.001). There is, however, no statistically significant difference between the linguacultural backgrounds (G^2=2.35, p=0.133), either in the MED subcorpus (G^2=0.19, p=0.659) or in the PSY subcorpus (G^2=1.72, p=0.189), though *it*-clauses are slightly more popular among Anglophone authors. This partly contradicts Mur-Dueñas's (2015: 168) conclusion that the structure is more common in the RAs by non-English authors. However, it should be noted that Mur-Dueñas focused on business management RAs written by scholars representing linguacultural contexts other than the Polish context.

4.2. Comparison across Disciplines

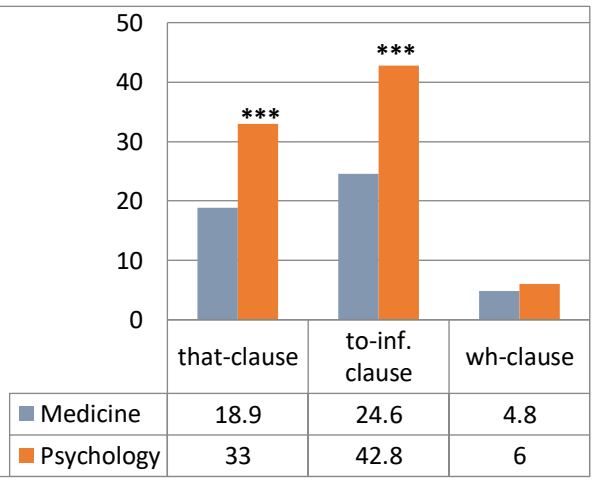
This section reports disciplinary variation in the use and variability of *it*-clauses with adjectival predicates.

Figure 1[v] shows that except for *that*-deletion or "Del", the other aspects of variability of *it*-clauses predominate in psychology, but their overall patterning is the same in both disciplines. Further interdisciplinary differences are illustrated in Figure 2, which shows the percentage distribution of the aspects of variability.

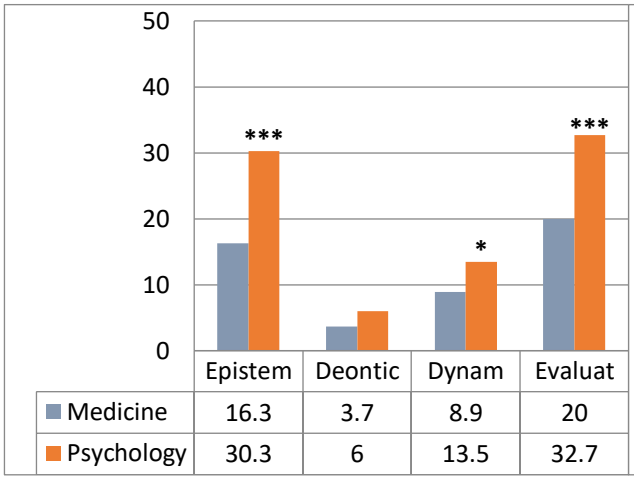
a) RA section



b) clausal form

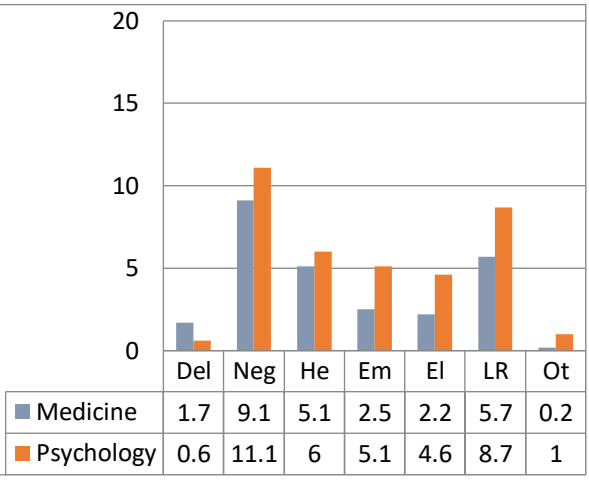


c) semantic class



	Epistem	Deontic	Dynam	Evaluat
Medicine	16.3	3.7	8.9	20
Psychology	30.3	6	13.5	32.7

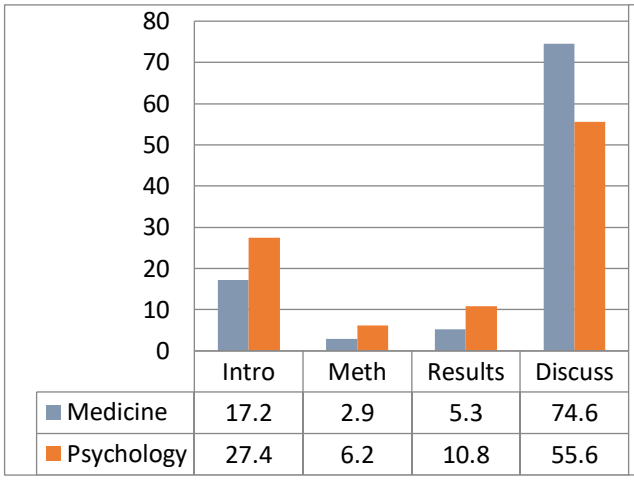
d) modifying features



	Del	Neg	He	Em	El	LR	Ot
Medicine	1.7	9.1	5.1	2.5	2.2	5.7	0.2
Psychology	0.6	11.1	6	5.1	4.6	8.7	1

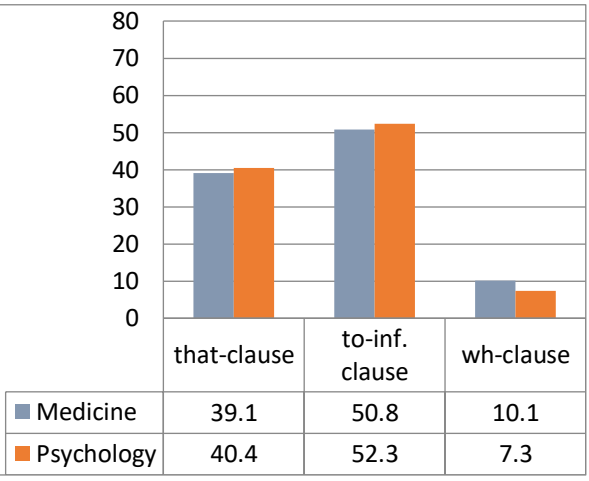
Figure 1. Frequency (per 100,000 words) of different aspects of variability of *it*-clauses across medicine and psychology.

a) RA section



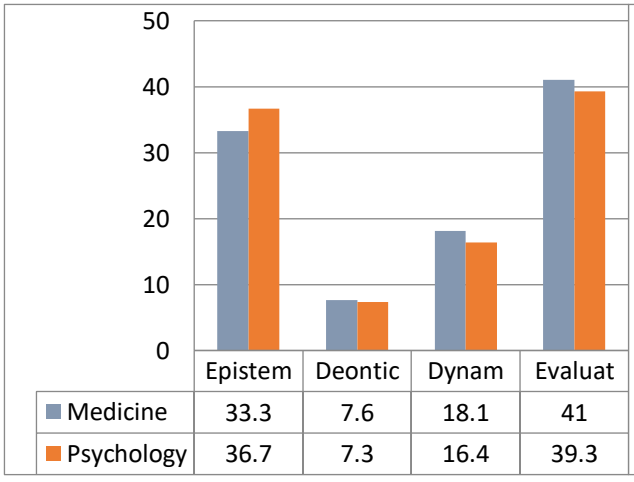
	Intro	Meth	Results	Discuss
Medicine	17.2	2.9	5.3	74.6
Psychology	27.4	6.2	10.8	55.6

b) clausal form



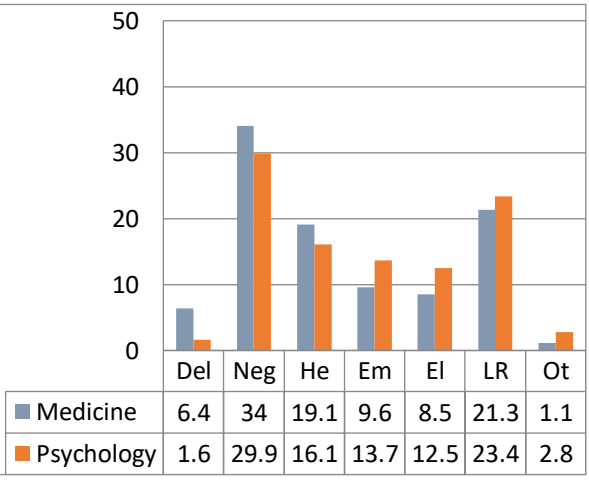
	that-clause	to-inf. clause	wh-clause
Medicine	39.1	50.8	10.1
Psychology	40.4	52.3	7.3

c) semantic class



	Epistem	Deontic	Dynam	Evaluat
Medicine	33.3	7.6	18.1	41
Psychology	36.7	7.3	16.4	39.3

d) modifying features



	Del	Neg	He	Em	El	LR	Ot
Medicine	6.4	34	19.1	9.6	8.5	21.3	1.1
Psychology	1.6	29.9	16.1	13.7	12.5	23.4	2.8

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Figure 2. Percentage information of different aspects of variability of *it*-clauses across medicine and psychology.

Comparing the frequency of *it*-clauses across RA sections, Figure 1a reveals some noteworthy interdisciplinary differences. In both disciplines the presence of *it*-clauses peaks in Discussions, although, as Figure 2a shows, the trend is particularly pronounced in medicine, while psychology has a more even distribution of *it*-clauses across sections. The lowest frequencies of *it*-clauses are found in Methods. Interdisciplinary differences are most pronounced in Introductions (29 vs. 149[vi], G^2=29.14, p<0.001) and Results (9 vs. 59, G^2=15.74, p<0.001), less pronounced in Methods (5 vs. 34, G^2=9.43, p=0.002), and least pronounced in Discussions (126 vs. 303, G^2=4.83, p=0.020). This distribution pattern reflects the differences and similarities in the communicative purposes of RA sections. *It*-clauses are common in Introductions and Discussions, because they provide a space where claims are proposed, elaborated, and qualified, with the writer often remaining in the background of what is being said to meet the criterion of scientific objectivity (1). By contrast, "Methods and Results are descriptive in nature and oriented toward research practices" (Zhang, 2022, p. 3) and therefore rarely generate the need to express the writer's stance on the content presented.

(1) *It is important to observe that in this case power is interpreted as an ability to influence other people.* (PSY-PENG_PPB 30_2019_50/4_Discussion)[vii]

The contrast between medicine and psychology is particularly striking in Introductions and Results, which is probably due to the differing frequency of the functional classes of the most common adjectives in these sections. The functional classification was proposed by Groom (2005), who, inspired by Francis et al.'s (1998) overview of *it*-clauses, grouped the adjectives under six functional labels: "importance", "validity", "difficulty", "adequacy", "desirability", and "expectation". The data show that in Introductions medical writers emphasize "importance" (40% of the adjectives in the section) and to a lesser extent, "validity" (27%) and "difficulty" (10%), whereas the work of psychology writers is more balanced in this respect, with a less pronounced predominance of "importance" (33%), and a comparable amount of attention paid to "validity" (30%) and slightly less to "difficulty" (19%). This functional, and, therefore, lexical diversification can be explained by the more urgent need for psychology writers to win over readers by constructing a complex network of evaluations concerning the significance of the study (2), the validity of previous research (3), or the difficulty of addressing research gaps (4).

(2) *From the perspective of designing targeted interventions, it is therefore important to explore the associations between profile membership and gender.* (PSY-ENG_PSE 55_2020_47_Introduction)

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(3) *However, early on it became clear that there is "more to self-esteem than whether it is high or low" (Kernis, Cornell, Sun, Berry, & Harlow, 1993, p. 1090).* (PSY-PENG_PPB 27_2018_49/4_Introduction)

(4) *The issue of high school achievements causes researchers many problems. First of all, it is difficult to define and differentiate between […]* (PSY-PENG_PPB 25_2018_49/4_Introduction)

In Results, only psychology writers express "importance" (20% of the adjectives in the section) and give more prominence to "difficulty" than medical writers (35% vs. 30%). This is probably because experimental findings in psychology tend to be more disputable than in medicine (5), and their significance needs to be clarified, unlike solid medical data that speaks for itself. There is also one similarity, which is that both disciplines equally often draw on the notion of "validity" (i.e., 30%), but medical writers prefer *likely*, *clear*, and *well-known*, whereas psychology writers rely heavily on *possible* and *unclear*.

(5) *Finally, it is important to highlight that the coaches described their responsibility of normalizing and fostering self-acceptance as critical to the way the athletes viewed them as role models and leaders in sport.* (PSY-ENG_PSE 56_2020_48_Results)

Figure 1b shows that all three clausal forms are more frequent in psychology than medicine, although both disciplines show a clear preference for *to*-infinitive clauses and most rarely use *wh*-clauses. Dong and Jiang (2019, p. 46) argue that the preponderance of *to*-infinitive clauses in academic discourse reflects "scholars' marked preference for ascribing evaluation to a cognitive process typically involved in it", as in (6). The high proportion of extraposed *that*-clauses, in turn, reflects their potential to "frame research findings" by incorporating writers' attitudes into the presentation of their central messages (Parkinson, 2013, p. 199), as in (7). Also, the proportion of *wh*-clauses (Figure 2b) is higher in medicine than in psychology (10.05% vs. 7.3%), which may suggest that medical writers more readily express doubtful evaluations of the *wh*-clause propositions, many of which were preceded by *unclear*, *unknown*, and negated *clear* (8). This may be due to the complexity of research objects in medicine.

(6) *It is critically important to understand gender dynamics among diverse groups,* […] (PSY-ENG_JADP 37_2018_59_Discussion)

(7) *Nevertheless, it is also possible that greater levels of well-being allow people to spontaneously self-affirm.* (PSY-PENG_PFP 45_2020_25/2_Discussion)

(8) *It remains unclear why patients would go on to develop a frozen shoulder (…).* (MED-ENG_JO 39_2018_15/3_Discussion)

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Significant disciplinary differences were found in the frequencies of *to*-infinitive clauses (86 vs. 285, G^2=21.90, p<0.001) and *that*-clauses (66 vs. 220, G^2=17.21, p<0.001). Table 3 shows the adjectives that are most frequently accompanied by the two clausal forms across disciplines. There is a considerable interdisciplinary overlap regarding the frequency at which these adjectives occur as well as in terms of their ranked order, which is particularly evident in the case of tokens with *to*-infinitive clauses. However, these adjectives appear with different frequencies in the *it*-clauses of each discipline.

Table 3. Adjectives most frequently (per 100, 000 words) followed by *that*- and *to*-infinitive clauses across the disciplines.

	Medicine	**Psychology**
***that*-clauses**	possible (5.1) worth noting/mentioning/etc. (2.0) noteworthy (1.7)*** important (1.4) likely (1.4) evident (1.1)	possible (15.3)*** likely (3.1) worth noting/mentioning/etc. (2.2) clear (1.3)** important (0.9)
***to*-infinitive clauses**	important (4.0) possible (3.4) difficult (2.8) necessary (1.7) interesting (1.1) reasonable (1.1)	important (12.9)*** possible (5.7) difficult (4.2) interesting (2.1) necessary (2.1) impossible (1.6)*

In the group of adjectives taking a *that*-clause, psychology writers use *possible* (18 vs. 102, G^2=22.86, p<0.001) and *clear* (0 vs. 9, G^2=7.57, p=0.005) much more often, but make significantly less use of *noteworthy* (6 vs. 0, G^2=12.82, p<0.001) compared to medical writers. This may suggest the important role that "validity" plays in psychology, especially that the three most frequent adjectives in Table 3 (*possible*, *likely*, *clear*) convey this notion and occur at a total frequency of 19.8 per 100,000 words, which is two and a half times as often as in medicine (7.6; *possible*, *likely*, *evident*). This is probably because of the need to persuade readers that the claims which are put forward are well-founded despite the often anecdotal evidence on which they are based (9). In the group of adjectives taking a *to*-infinitive clause, medical writers use *important* (14 vs. 86, G^2=21.31, p<0.001) and *impossible* (1 vs. 11, G^2=4.51, p=0.03) significantly less often than psychology writers. Interestingly, the most frequent adjectives expressing "importance" are two and a half times as frequent in psychology (15.0; *important*, *necessary*) as in medicine (5.7; *important*, *necessary*); and those conveying "difficulty" are almost twice as frequent in psychology (11.5; *possible*, *difficult*, *impossible*) as in medicine (6.2; *possible*, *difficult*). It may be that psychology writers have a preference

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for claims that emphasize the significance of the issues discussed (10) and the problems involved in their studies (11). Such evaluative practices may help to counterbalance the fuzzy nature of discipline findings.

(9) *Also, it was clear from the discussions that the coaches believed they could observe body image concerns through behavioral manifestations […].* (PSY-ENG_PSE 56_2020_48_Results)
(10) *As a result, it is important to recognize how individuals perceive the locus of causality […].* (PSY-PENG_RP 55_2020_23/3_Introduction)
(11) *Specifically, it was impossible to determine whether participants reacted to the sender's emotional displays […].* (PSY-PENG_RP 54_2019_22/1_Introduction)

Figure 1c shows that all semantic classes of adjectival predicates predominate in psychology. Statistically significant differences lie in the most frequent Evaluative predicates (70 vs. 218, G^2=13.64, p<0.001), followed by Epistemic (57 vs. 202, G^2=18.84, p<0.001) and Dynamic (31 vs. 90, G^2=4.29, p= 0.038). Further divergences are observed when considering the percentage distribution of the semantic classes of predicates in medicine and psychology displayed in Figure 2c. Epistemic modality is the only category that has a higher proportion in psychology than in medicine (36.7% vs. 33.3%), indicating that the discipline is more concerned with the truth of propositions, commenting on their certainty (12) or likelihood (13).

(12) *It is clear from this work that perceivers use the observable properties of coordination to make inferences about the characteristics of social interactions.* (PSY-ENG_AP 9_2020_209_Introduction)
(13) *It is also likely that people who are convinced that the perpetrator acts alone and not in a group will have better mental health.* (PSY-PENG_ACP 9_2020_16/1_Discussion)

Deontic (7.6% vs. 7.3%) and Dynamic (18.1% vs. 16.4%) modality, and Evaluation (41% vs. 39.3%), occur at a slightly higher percentage in medicine. While the difference between the percentages of Deontic modality in the two disciplines is very small (diff.: 0.3%), it becomes larger in the case of Dynamic modality (diff.: 1.7%) and Evaluation (diff.: 1.7%). This may suggest that medical writers more readily convey "opinion of the potential success or other circumstances related to the success of the activity represented by" the clausal content and project evaluation towards propositions (Herriman, 2000: 590). Another difference is that Dynamic predicates in psychology are all concerned with Potentiality (14), while those in medicine additionally relate to Circumstances (15). This may be due to the fact that medicine tends to be focused on tangible objects of study, while psychology often deals with abstract phenomena and thoughts.

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(14) *First of all, it is difficult to define and differentiate between certain concepts such as a gifted student, an outstandingly able student* (PSY-PENG_PPB 25_2018_49/4_Introduction)

(15) *What is the best point in time to remove the drain with sealing and whether it would be safe to carry out such procedures in an outpatient clinic* (MED-PENG_AA 8_2020_26/3_Discussion)

Regarding the Evaluation category, it can be seen from Table 4 that although the disciplines exhibit the same ranked order of the subtypes of value judgements made about the clausal content, they differ in the priority given to the specific evaluations. Appropriateness, Emotive reaction, and Frequency are more common in medicine, whereas Significance, General evaluation, and Specific characteristic are more common in psychology.

Table 4. Subdivision of the Evaluation semantic class.

	Medicine	**Psychology**
Significance	51.4%	56.4%
Appropriateness	21.5%	16.5%
Emotive reaction	15.7%	12.8%
General evaluation	5.7%	10.1%
Frequency	5.7%	3.7%
Specific characteristic	0%	0.5%

As Figure 1d shows, most of the modifying features within the *it*-clauses are more numerous in psychology (N=248) than in medicine (N=94). However, considering that the percentage of *it*-clauses containing at least one modifying feature amounts to 46.74% (N=79) in medicine and to 42.9% (N=234) in psychology, it seems that the preference for this type of variability is stronger among medical writers. Figure 2d reveals further differences. While psychology RAs exhibit higher proportions of emphasis, adjective elaboration, markers of logical relations, and other modifying features, medical RAs contain a higher percentage of negation, hedges, and *that*-deletion. The preponderance of negation correlates with the marked presence of *wh*-clauses, which is in line with Larsson's (2016a: 72) findings, while frequent *that*-deletion may suggest a more conversational tone of writing (Biber et al., 1999: 680). The higher proportion of hedges in the MED texts may reflect the somewhat "softer" dimension of medicine, indicating a need to mitigate claims to counterbalance limited empirical validation caused by the infinite nature of the population on which medical research is conducted.

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4.3. Comparison across Linguacultural Backgrounds

Tables 5–8 show the results obtained for intercultural variation in the use and variability of *it*-clauses with adjectival predicates in medical and psychology RAs by Polish and Anglophone authors.

The frequencies of *it*-clauses across the RA sections reported in Table 5 show the tendency already observed across the disciplines: *it*-clauses peak in Discussions and Introductions and are the least frequent in Methods; the only exception is the PSY-PENG subcorpus, where the frequency of *it*-clauses is the lowest in Results. Overall, the occurrence of *it*-clauses in the sections shows no statistically significant differences between the two linguacultural backgrounds. However, it is worth noting that in both disciplines Anglophone RAs exhibit higher frequencies and percentages of *it*-clauses in Discussions. Probably the most distinct finding is that *it*-clauses are surprisingly frequent in the Methods section of Polish psychology RAs, as indicated by all measures of intercultural comparison, namely, percentage distribution, frequency of occurrence, and the fact that this section has the lowest number of *it*-clauses in the other subcorpora. This is probably because Polish psychology RAs tend to have an unconventional division into sections (Golebiowski, 1998), and thus propositional content that is typically found in other sections is sometimes woven into descriptions of the research design. This is illustrated by (16), where the author uses an *it*-clause in an extract reviewing the literature in the field.

(16) *Recent studies successfully addressed the concept of everyday creativity from different perspectives and using a variety of methods (see, e.g., Conner & Silvia, 2015; Ivcevic, 2007). Given that adolescence is a period of progressive specialization of creative potential, […] (Barbot, 2020), it is also important and reasoned to differentiate between the creative domains among young people.* (PSY-PENG_CTRA 19_2020_7/1_Methods)

Table 5. Frequency[viii] and percentage distribution of *it*-clauses per RA section in Polish and Anglophone RAs.

	MED-ENG		**MED-PENG**		**PSY-ENG**		**PSY-PENG**	
	NF	**%**	**NF**	**%**	**NF**	**%**	**NF**	**%**
Introduction	7.2	14.6	9.5	20.6	22.9	26.7	21.6	28.2
Methods	1.5	3.1	1.2	2.7	3.6	4.3	7.0	9.3
Results	2.6	5.2	2.5	5.5	10.6	12.5	6.3	8.3
Discussion	38.5	77.1	33.2	71.2	48.5	56.5	41.4	54.2

Table 6 shows the frequency and percentage distribution of the clausal forms across the subcorpora. An interesting intercultural difference is that in both disciplines *to*-infinitive clauses are more frequent in Polish RAs, which is statistically significant in the MED

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subcorpus (36 vs. 50[ix], G^2=6.07, p=0.013). The increased use of *to*-infinitive clauses by Polish writers is further confirmed by the fact that in both disciplines such clauses account for a predominant percentage of clausal forms chosen in Polish medical and psychology RAs. This might be tentatively explained by the attempt of Polish authors to approximate the conventions of Anglophone academic discourse, where this clausal form most frequently follows introductory *it* (Dong & Jiang, 2019, p. 46). On the other hand, the higher frequency and proportion of *that*-clauses in Anglophone medical and psychology RAs, where the difference is statistically significant (147 vs. 73, G^2=7.85, p=0.005), may be linked with Römer's (2009: 151) finding that the use of this clausal form after adjectival predicates accelerates "in order of increasing academic writing proficiency".

Table 6. Frequency and percentage distribution of clausal forms in Polish and Anglophone RAs.

	MED-ENG		**MED-PENG**		**PSY-ENG**		**PSY-PENG**	
	NF	**%**	**NF**	**%**	**NF**	**%**	**NF**	**%**
that-clause	23.9	47.9	12.7	27.4	38.3**	44.7	25.8	33.8
to-infinitive clause	18.7	37.5	31.9*	68.5	39.1	45.6	47.8	62.5
wh-clause	7.2*	14.6	1.9	4.1	8.3**	9.7	2.8	3.7

Intercultural differences are also observed in the adjectives that most frequently precede the two clausal forms. In psychology, the preferences of both groups of writers are similar, but the first-choice adjective before a *that*-clause –*possible*– is used significantly more frequently by Anglophone authors (18.7 vs. 10.6 = 72 vs. 30, G^2=7.34, p=0.006), while *likely* (3.6 vs. 2.4) and *clear* (1.5 vs. 0.7) are also more popular, compared to their use by Polish authors. Similarly, the first-choice adjective before a *to*-clause –*important*– is used significantly more often by Anglophone authors (16.9 vs. 9.2 = 65 vs. 26, G^2=7.45, p=0.006), while *possible* appears much less frequently in their writing (1.5 vs. 8.1 = 6 vs. 23, G^2=16.52, p<0.001); *difficult* is slightly more common among Anglophone writers (4.6 vs. 4.2), but *necessary* is not used at all, although it is quite popular among Polish writers (4.9). In medicine, each group of writers has its specific preferences for the most frequent adjectives. Regarding *that*-clauses, the most popular adjective among Anglophone authors is *possible*, which Polish authors use significantly less frequently (7.8 vs. 1.9 = 15 vs. 3, G^2=6.46, p=0.01), followed by *likely* (2.2 vs. 0.6); Polish authors prefer *noteworthy* (1.9 vs. 1.5) and *important* (1.9 vs. 1.0). Regarding *to*-clauses, Anglophone authors prefer *difficult* (3.6 vs. 1.9), while Polish authors choose *important* (4.4. vs. 3.6), as well as *possible* (4.4 vs. 1.5 = 7 vs. 3, G^2=6.38, p=0.01) and *necessary* (3.1 vs. 0.5 = 5 vs. 1, G^2=3.80, p=0.05), both of which appear significantly less frequently in Anglophone RAs.

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Mapping these lexical preferences onto the functional classification of adjectival predicates proposed by Groom (2005), it becomes clear that in both disciplines Anglophone writers often use *it*-clauses to express "validity" (*possible*, *likely*, *clear* before a *that*-clause), which correlates with their increased use of *that*-clauses that are closely related to this notion. Polish writers, on the other hand, seem to be more concerned with the notion of "importance" (*important*, *necessary*), especially in medical RAs. These findings can be tentatively combined with Römer's (2009, p. 154) observations that the function of "validity" is frequent in expert writing, while the function of "importance" is more dominant in apprentice writing.

Wh-clauses are more frequent and have a higher proportion in Anglophone RAs, which is significant in psychology (32 vs. 8, G^2=9.00, p=0.002) and in medicine (14 vs. 3, G^2=5.64, p=0.017). Anglophone authors make extensive use of the clausal items *whether* (14 tokens) and *if* (11 tokens), especially in psychology (10 tokens of each clausal item). Thus, it seems that Anglophone writers value academic arguments based on hypothetical considerations, as in (17) and (18), unlike Polish authors, who do not use *if* at all and use *whether* only four times.

(17) *However, it is unclear whether narcissism has a bidirectional association with bullying involvement […].* (PSY-ENG_JADP 40_2019_65_Introduction)

(18) *[…], it is unclear if the level of peer acceptance is associated with children's home languages.* (PSY-ENG_JADP 48_2021_76_Introduction)

The preferences for the semantic classes of adjectival predicates are shown in Table 7. Anglophone writers in both disciplines emphasize Epistemic modality, followed by Evaluation, Dynamic, and Deontic modality. This finding is consistent with that of Zhang (2015: 6), who reports the same order of the semantic categories in the academic writing component of the International Corpus of English. The difference is statistically significant in both medicine (43 vs. 14, G^2=10.11, p=0.001) and psychology (146 vs. 56, G^2=18.69, p<0.001), and it is further confirmed by the higher proportion of epistemic predicates in Anglophone than Polish RAs. This result corroborates the centrality of epistemic considerations in Anglophone academic writing, as reported, for example, by Warchał (2010), who concluded that Anglophone linguistics RAs contain a large proportion of high-value epistemic modal verbs.

Table 7. Frequency and percentage distribution of semantic classes of adjectives in Polish and Anglophone RAs.

	MED-ENG		**MED-PENG**		**PSY-ENG**		**PSY-PENG**	
	NF	**%**	**NF**	**%**	**NF**	**%**	**NF**	**%**
Epistemic	22.3**	44.3	8.9	18.9	38.0***	44.1	19.8	25.6
Deontic	2.0	4.1	5.7	12.2	4.9	5.7	7.4	9.6
Dynamic	7.8	15.5	10.2	21.6	9.3	10.9	19.1***	24.6

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Evaluation	18.2	36.1	22.3	47.3	33.9	39.3	31.1	40.2

Polish authors are less consistent in their choices, although in both disciplines they favour Evaluative predicates, which allow them to make value judgements of propositions (19), and are the least concerned with Deontic modality. Epistemic modality is the second choice in psychology, but the third in medicine. The frequency and percentage of deontic and dynamic predicates is higher in Polish RAs than in Anglophone RAs, and in psychology the difference in the rate of dynamic adjectives is statistically significant (36 vs. 54, G^2=11.24, p<0.001). This suggests that Polish authors are more concerned with the obligatory nature of the evaluated clausal content (20), which correlates with the increased frequency of the adjective *necessary* in their texts. In turn, the increased frequency of dynamic predicates, mainly Potentiality (21), raises the possibility that they are more inclined to make neutral comments on facts about ability and disposition.

(19) *It sounds illogical to use the TNM staging to design technique and dose fractionation* (MED-PENG_NJO 47_2021_71/2_Introduction)

(20) *Because of the necessity to exclude a relatively large group of patients due to the lack of all the required data for the study, it is necessary to create a full medical interview scheme* (MED-PENG_ACEM 21_2020_29/6_Discussion)

(21) *In the literature on the subject it is possible to find various classifications of and names for these generations.* (PSY-PENG_PPB 31_2020_51/2_Introduction)

Regarding the category of Evaluation, its subtypes are comparable across the two linguacultural backgrounds. Significance is the most common Evaluation, with 48.8% in the MED-ENG, 54.3% in the MED-PENG, 61.5% in the PSY-ENG and 48.9% in the PSY-PENG; this is followed by Appropriateness, although its proportion is higher in Polish RAs than in Anglophone RAs, respectively, both in medicine (25.7% vs. 17.1%) and in psychology (22.8% vs. 12.3%). Emotive reaction is the third choice, except in the PSY-ENG, where General Evaluation is more popular. Evaluation of Frequency is the least common across the subcorpora, while Specific Characteristic occurs only once in the PSY-PENG.

Table 8 shows the distribution of modifying features within *it*-clauses across the subcorpora. The main finding is that their number is higher in Anglophone RAs than in Polish RAs, both in medicine (60 vs. 34) and in psychology (164 vs. 84). Another intercultural difference is the higher frequency and percentage of *that*-deletion in Anglophone RAs, which is statistically significant in medicine (6 vs. 0, G^2=7.15, p=0.007). This is surprising, as *that*-deletion in *it*-clauses is rare in academic writing and particularly uncommon after adjectival predicates (Kaltenböck, 2006, p. 378, p. 381). This finding may be explained by Kaltenböck's (2006, pp. 388–389) claim that it is "the assertion of the new or newsworthy information in the complement clause that favours omission of the complementizer", or, alternatively, it is

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"the hedging function of parenthetical reporting clauses" (i.e., matrix clauses) that "makes the use of *that* redundant", since the *that*-complementizer itself has a hedging effect.

Table 8. Frequency and percentage distribution of modifying features within *it*-clauses in Polish and Anglophone RAs.

	MED-ENG		**MED-PENG**		**PSY-ENG**		**PSY-PENG**	
	NF	**%**	**NF**	**%**	**NF**	**%**	**NF**	**%**
***that*-deletion**	3.1**	10.0	0	0	0.7	1.8	0.3	1.2
negation	13.0**	41.7	4.4	20.6	12.2	28.7	9.5	32.1
hedge	4.6	15.0	5.7	26.5	8.0**	18.9	3.1	10.7
emphasis	2.0	6.7	3.1	14.7	5.2	12.2	4.9	16.7
adjective elaboration	2.6	8.3	1.9	8.8	7.0***	16.5	1.4	4.8
markers of logical relations	5.2	16.7	6.3	29.4	8.3	19.5	9.2	30.9
other modifying features	1.0	1.6	0	0	1.0	2.4	1.0	3.6

Another consistent trend is the increased frequency and percentage of markers of logical relations in Polish RAs. This, although not supported by statistical significance, suggests that Polish authors try to follow the conventions of Anglophone academic writing, which places great emphasis on the organisation and form of the argument (Warchał, 2015, pp. 44–50). Other significant regularities were found in Anglophone RAs, with their increased frequency of negation, especially in medicine (25 vs. 7, G^2=7.38, p=0.006); adjective elaboration, especially in psychology (27 vs. 4, G^2=12.81, p<0.001); and hedges in psychology (31 vs. 9, G^2=6.99, p=0.008).

4. CONCLUSIONS

The study shows that disciplinary and linguacultural factors influence the use and variability of *it*-clauses with adjectival predicates in English-medium RAs. The finding that medicine and psychology tailor *it*-clauses to their own needs accords with previous research indicating similar tendencies observed for other disciplines (Degaetano-Ortlieb & Teich, 2014; Groom, 2005; Larsson, 2017, 2019). In line with Peacock's (2011) observation that soft sciences use the structure more frequently, this study reveals the preponderance of *it*-clauses in psychology RAs. This may be explained by the discipline's greater need to exploit the rhetorical potential of *it*-clauses to promote an objective yet persuasive discourse, as the phenomena discussed in it are less dependent "on empirical demonstration or trusted quantitative methods" (Hyland, 2004, pp. 144–145). Since the structure also functions as a stance resource, its high frequency in psychology RAs shows that their authors feel particularly compelled to signal their "textual

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voice or community-recognized personality", in which they "present themselves and convey their judgments, opinions, and commitments" (Hyland, 2005, p. 178). The disciplines also differ in the extent to which they capitalize on different aspects of *it*-clauses, although both use them most heavily in Discussions, and prioritize *to*-infinitive clauses and evaluative predicates. The latter finding contradicts Zhang's (2015) observation that academic writing emphasizes Epistemic predicates, but conforms with Mur-Dueñas (2015), who found that non-English authors emphasize attitudinal evaluation.

Intercultural variation, although not significant when considering the overall frequency of *it*-clauses across the two linguacultural backgrounds, indicates marked preferences for specific aspects of the structure in each group. *It*-clauses are slightly more common among Anglophone authors, who tend to prioritize those features that are often found in proficient academic writing –i.e., a high proportion of *that*-clauses, using *it*-clauses to express "validity" (Römer, 2009), and a high frequency of Epistemic predicates (Zhang, 2015)– and seem to avoid those that are more common in non-native English texts, including the Polish ones considered here –i.e., emphasis (Larsson, 2017), and using *it*-clauses to express "importance" (Römer, 2009) or in popular writing, i.e., the high frequency of Evaluative predicates (Zhang, 2015). However, some of the trends observed in Polish RAs –i.e., the high frequency of *to*-infinitive clausal forms (Dong & Jiang, 2019) and numerous markers of logical relations (Warchał, 2015) seem to suggest a conscious effort to conform to the conventions of Anglophone academic discourse. Presumably, this is because such an approach may win Polish writers the chance to disseminate their research internationally.

The insights from this study can be incorporated into the teaching of EAP to help students and aspiring academics improve their understanding of the evaluative properties of *it*-clauses. Raising writers' awareness of culturally- and disciplinary-based conventions through activities informed by the findings presented may facilitate their use of this structure to express value judgements more effectively in their academic prose. The disciplinary conventions in the use of *it*-clauses with adjectival predicates that the study has revealed can serve as signposts for medical and psychology authors, helping them to achieve a persuasive alignment with their own discourse community in order to make their judgments and claims more convincing. By comparison, the aspects of intercultural variation in the use of the structure that have been uncovered may provide a benchmark, particularly for Polish academic writers, to guide their choice of the specific variants of *it*-clauses that would meet the rhetorical expectations of English writing in the context of international publications.

It remains for future research to identify more nuanced preferences for the use of *it*-clauses across the RA sections, particularly as variants of the structure were found to be specialised for specific rhetorical moves, such as "indicating areas for future research" or "commenting on specific findings" (Ädel, 2014). Avenues for future research also include extending this study to include *it*-clauses with other grammatical classes of matrix predicates

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and replicating the study in other disciplines and linguacultural backgrounds. Finally, the study can be complemented by carefully reconsidering its findings in terms of the contribution they can make to academic writers' awareness of which aspects of the structure should be foregrounded in order to express stance more effectively in their research writing.

NOTES

[i] For an overview of the labels that are commonly used to refer to the structure, see Mur-Dueñas (2018, p. 279).
[ii] The main text of the articles consists of the body of each text after the removal of abstracts, notes, appendices, examples, longer quotations, bibliographies, tables, and figures.
[iii] Conditional *if*-clauses were excluded.
[iv] Two instances that included *not* and a negative prefix (e.g., *it is not uncommon to hear*) were excluded from the count, as the combined use of the two negating features nullifies the negation.
[v] The asterisks in tables and figures indicate the following *p* values: * = $p<0.05$; ** = $p<0.01$; *** = $p<0.001$.
[vi] Raw frequency for medicine vs. raw frequency for psychology.
[vii] The following convention was used to describe examples from the corpus: abbreviation for the specific subcorpus (e.g., PSY-PENG), followed by number of articles in the subcorpus (e.g., 52); abbreviation for the journal title (e.g., TLH); year of publication (e.g., 2018); issue (e.g., 52 or 13/4); and rhetorical section (e.g., Methods); for example, PSY-PENG 52_TLH_2018_53_Methods.
[viii] The tables in section 4.3 show normalized frequency (per 100,000 words).
[ix] Raw frequency for Anglophone authors vs. raw frequency for Polish authors.

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