

SENTENCE LINKERS IN ESSAYS AND PAPERS BY NATIVE VS. NON-NATIVE WRITERS

Radek Vogel

Abstract

Sentence linkers rank among the principal cohesive devices in formal written texts. The paper analyses the distribution of the main categories of sentence linkers in essays written by advanced non-native users of English and compares the results with the variety and frequency of sentence linkers used in academic papers produced by native users. It tests the hypothesis that non-native writers are more inclined to overuse sentence linkers as an easy and ready-made tool to achieve cohesion of a text. Influence of teaching formulaic writing patterns is also discussed in the paper.

1 Cohesive devices in academic essays and papers

Academic writing manuals and similar guides to writing skills normally present a set of linguistic devices that contribute to reaching desirable qualities of good formal texts, notably objectivity, clarity, the appropriate level of formality, logical progression, cohesion, etc. The two approaches commonly used by such manuals are either providing inventory of such devices and illustrating their use, or making learners identify them in sample texts and classifying them into categories. Apart from the features characteristic of formal styles such as a frequent use of passive forms, present simple tense to express general statements, neutral vocabulary, absence of expressive words, lack of personal pronouns, nominalisations, prevalence of content words etc., learners of English are also taught to use lexical and grammatical cohesion devices. They particularly include repetition of lexemes or relexicalisation by synonyms as the means of lexical cohesion, and ellipsis, substitution, co-reference of nouns with pronouns and use of logical connectors (or sentence linkers) as the principal devices of grammatical cohesion.

One of the aspects that help “to recognise a text as ‘academic’” is “the use of a clear and fairly predictable structure” (Hamp-Lyons & Heasley 2006: 30). It is implied that a formal text structure can be simplified into an outline consisting almost invariably of the introduction, body (further subdivided into e.g. methods, results and discussion sections) and conclusion. Another type of logical organisation of an academic text is the S-P-S-E structure (i.e. Situation, Problem, Solution, Evaluation) (ibid.: 120). Unless a text is organised as a narrative, where the sequence of events is marked by verbal tenses, time indicators and time relaters (ibid.: 75-77), argumentative papers share the cohesive devices

with descriptions of processes, namely the use of sequence markers (sequence connectors) and connectives. The role of such cohesive devices in academic texts is to convey logical linkage between ideas in the texts, increasing thus their level of cohesion. They contribute substantially to the readability of such texts, but, at the same time, their explicit meaning and usage may easily make them redundant if the linkage is indicated sufficiently in a different way. This especially seems to be the case of sequence markers used when sequence of ideas is not of special importance, i.e. unless the simple sequence in the text conveys the organisation of ideas insufficiently and requires the use of additional, more explicit indicators.

Relative simplicity of the typical structure expressing a series of events marked by sequence markers *first/firstly/first of all – second/secondly – third/thirdly – next/after that/then – last/lastly/finally* etc. (cf. Hamp-Lyons & Heasley 2006: 90) seems to lead to overuse and overgeneralisation of such a pattern by non-native writers in the English academic style. Sequence markers are, however, a mere subtype of a broader category of cohesive devices, termed variously, esp. logical connectors, connective or conjunctive adverbs, discourse markers, sentence linkers, conjuncts and disjuncts etc. (An extensive list of various labels was compiled by Hůlková 2005: 53-54.) Their ability to mark unambiguously logical connections between parts of a discourse, namely contrast, concession, result, inference, conclusion, as well as sequence mentioned above, combined with their frequently prominent initial position in sentences or paragraphs and a relatively low number, make these devices a convenient means of expressing clear logical relations within texts and utterances with dominantly referential function.

This paper draws on research using a sample of about 500-word essays written by Czech university students of English (as their major subject)¹ in a course where such formulaic patterns were not mentioned or taught explicitly (viz. Practical and Professional English, a course aimed at developing future teachers' professional language competencies); however, an Academic Writing course was taught in the same semester, attended by most students in question. The results of analysis of essays written by Czech students of English are checked against a random sample of academic papers by native speakers of English, published in proceedings of an international conference² focussed on teaching.

2 Linkers in essays by advanced non-native writers

The research was carried on a sample of 20 essays (about a third of the total) written by advanced users of English on topics related to teacher training and teaching methodology. This group of students' essays was chosen to compile a non-native mini-corpus as their authors are graduate students who even use

English daily in their jobs concerning mostly teaching, i.e. they form the non-native (Czech) segment which is as close as possible to native speakers of English in terms of their proficiency³.

Cohesive devices listed and quantified in Table 1 below include apparent discourse markers signalling sequence of ideas in the text and their logical relationships, namely conjunctive relations of the additive, adversative, causal and temporal types (where belong the above-mentioned sequential and conclusive adverbials) (cf. Halliday & Hasan 1976: 242). The principal syntactic characteristic was their initial sentence position; however, a few of them occurred in interclausal or even intraclausal positions. Several sentences from the non-native mini-corpus are presented below to demonstrate variation in the positions of the identified discourse markers.

- (1) **Furthermore**, games make language learning more enjoyable. (E4)
- (2) **Therefore**, it is better to stand back from what is going on among the four walls of the particular problematic classroom. (E7)
- (3) **Last but not least**, self-assessment should be taken into consideration while talking about evaluation. (E8)
- (4) I said that I had always been interested in learning languages, I liked working with people, and, **what is more**, I have never been influenced by such crucial discouraging factors. (E15)
- (5) These pros motivate us to do the best in our profession; **on the other hand**, the cons discourage from what was primarily motivating. (E15)
- (6) I **also** find game-playing to be a useful means for teaching vocabulary, useful not for its entertainment value (...) (E6)
- (7) Others, **on the contrary**, think that is better to be strict and show authority. (E13)
- (8) This, **however**, is significant only in case of perfectly made didactic tests that prove reliability, validity and other features that a good test must possess. (E8)

Fig.1: Examples of initial (1, 2, 3), interclausal (4, 5) and intraclausal (6, 7, 8) positions of discourse markers in the non-native mini-corpus.

Conjunctions in coordinating and subordinating sentences were not included; the sought discourse markers were expected to organise the text rather at a suprasentential level. On few occasions, inadequately used *but* and *and* in the initial positions were included in the survey (resulting from interference with Czech; *however*, *nevertheless*, and *moreover*, *additionally*, etc., would be preferred instead, respectively, by native writers). Sequential relations were sometimes expressed by the subjunct *also* or by paraphrases incorporating ordinal numerals in noun phrases; such constructions were mentioned in the table as well to show the alternatives.

Paragraph Essay	P _i (introductory paragraph)	P _{i+1}	P _{i+2}	P _{i+3}	P _{i+4}	P _{i+5}	P _{i-1}	P _i (concluding/final paragraph)
E1	Yet (PM)	Firstly (PI)	Similarly (PM)	Finally (PM)	-	-	...also... Yet (PM) And, more-over (PM)	-
E2	Unfortunately (PM)	<i>One of ...</i>	Secondly (PI) Very generally speaking (PM) However (PM) Further (PM) Therefore (PM) As a result (PM)	Thirdly (PI) To begin with (PM) Further (PM) Apart from ... (PM) In addition (PM)	And yet (PI) In other words (PM) Further-more (PM) Last but not least (PM)	-	-	In conclusion (PI)
E3	However (PM) Therefore (PM)	First of all (PI)	-	-	-	Finally (PI)	-	-
E4	However (PM)	First of all (PI)	In addition to it (PI)	Further-more (PI)	On the top of that (PI)	On the other hand (PI)	-	To sum up (PI) ...and, more importantly, ... (PM, IC) ... and thus ... (PM, IC)
E5	-	Firstly (PI) Unfortunately (PM)	Secondly (PI)	Thirdly (PI)	Fourthly (PI)	Fifthly (PI)	Finally (PI)	In conclusion (PI) However (PM)
E6	-	To begin with (PI)	I therefore (PI) ..., after all, ... (PM, IC)	...also...	Then (PM)	-	-	But (PM)
E7	Nevertheless (PM)	But on the other hand (PM)	First of all (PI) Therefore (PM) On the contrary (PM)	Secondly (PI) However (PM)	<i>Another... ...also... ...then...</i>	-	-	And (PM)
E8	-	<i>The main ...</i> However (PM) Last but not least (PM)	-	Thus (PM)	..., how-ever, (PM, IC) Neverthe-less (PM)	-	Last but not least (PI)	To sum it all up (PI)
E9	To start with (PI) Still (PM) Therefore (PM)	Unfortu-nately (PI) However (PM) Yet (PM)	Neverthe-less (PM) After all (PM)	In any case (PM) However (PM)	-	-	-	To sum up (PI) Nonetheless (PM)
E10	But (PM)	However (PM)	However (PM)	-	First (PM)	Fortuna-tely (PM)	More-over (PM)	Due to this (PI) ...also... ...also...
(E11-E20)	(...)	(...)	(...)	(...)	(...)	(...)	(...)	(...)

Table 1: Linkers (disjuncts and conjuncts) and their position within paragraphs in essays written by non-native advanced users of English.

Notes:

(PI) = *paragraph-initial*; initial position of a linker within a paragraph (adverbial disjuncts).⁴ Such instances are also marked by bold print.

(PM) = *paragraph-medial*; medial position of a linker within a paragraph, though initial in a sentence (adverbial disjuncts and conjuncts).

(IC) = *interclausal*; interclausal position of a linker, position within a sentence (a conjunct).

Findings of the analysis of all 20 essays in the mini-corpus are summarised in Table 2.

Paragraph Frequency (occur./total)	P _i	P _{i+1}	P _{i+2}	P _{i+3}	P _{i+4}	P _{i+5}	P _{e-1}	P _c
	1/20 (5%) <i>To start with</i>	6/20 (30%) <i>First /Firstly/ The first</i>	3/20 (15%) <i>The first / First of all</i>	2/20 (10%) <i>Thirdly</i>	2/20 (10%) <i>The third thing... /Fourthly</i>	-	3/20 (15%) <i>Finally / Last but not least/ The last...</i>	1/20 (5%) <i>Finally</i>
	17/20 (85%) no specific beginning	2/20 (10%) <i>One of the main ... / The main ...</i>	3/20 (15%) <i>Secondly</i>	2/20 (10%) <i>Secondly</i>	8/20 (40%) <i>Further-more/ The other.../ On the top of that /Another.../... also...</i>	-	4/20 (20%) <i>More-over /Another/Yet; and moreover</i>	8/20 (40%) <i>Overall / In conclusion /To conclude /To sum up</i>
	2/20 (10%) subordinating conjunctions <i>(As soon as / When)</i>		7/20 (35%) <i>Moreover/ Similarly / Further (more) / and what is more</i>	5/20 (25%) <i>Further-more /Moreover/ In addition / Yet again</i>		-		

Table 2: Frequency of individual categories of linkers (disjuncts and conjuncts) within paragraphs in essays written by non-native advanced users of English.

Table 1 displays a variety of patterns involving conjunctive devices and enables to draw several conclusions (Table 2). Whereas 85 per cent of essays used no specific starters, the subsequent paragraph was signalled by sequential adverbial *first, firstly* etc. in 30 per cent of essays. Another 30 per cent and 25 per cent of essays, respectively, applied additive linkers in the third and fourth paragraphs.

Essay 2 (E2):

- (P_i) As soon as the fresh graduates of Faculty of Education sober up from their joy, they have to face an important decision.
- (P_{i+1}) *One of* the main factors the graduates consider is the salary.
- (P_{i+2}) **Secondly**, the teaching profession does not belong among professions with a high social status.
- (P_{i+3}) **Thirdly**, despite the low salary and social status, the work is very demanding.
- (P_{i+4}) **And yet** there are good points that need to be taken into account.
- (P_c) **In conclusion**, practical reasons make the most of qualified young people choose a non-teaching profession.

Essay 4 (E4):

- (P_i) What activities do I consider useful, efficient and interesting in language teaching?
- (P_{i+1}) **First of all**, I think that language games encourage learners to speak, (...).
- (P_{i+2}) **In addition to it**, I strongly believe that a very motivated learner works hard and wants to succeed.

- (P_{i+3}) **Furthermore**, games make language learning more enjoyable.
 (P_{i+4}) **On the top of that**, the games may influence the learners' attitudes to the language learning of their own.
 (P_{i+5}) **On the other hand**, many activities including games are not useful, efficient and interesting.
 (P_e) **To sum up**, the using of the activities - games which I consider useful, efficient and interesting - does much more good in language teaching than (...).

Fig.2: Use of sequential and summarising/concluding adverbials in initial sentences of paragraphs in two essays from the non-native mini-corpus.

Adversative disjuncts (*however, on the other hand*, etc.) seem to be distributed over the text quite equally, depending on where the contrast between some ideas is highlighted. Summarising and conclusive adverbials function as explicit discourse markers in 15 per cent penultimate sentences, but in as many as 45 per cent final ones.

3 Linkers in papers by native writers

The hypothesis prior to the research was that British and American native writers use considerably fewer explicit intersentential linkers, as they are capable of expressing the cohesive links by a variety of other ways, particularly lexically, structurally, by referential devices, etc. This assumption was rather based on the author's empirical reading experience, so an objective analysis of a sample of relevant authentic written material was necessary. The analysis of five papers on similar topics (four by British authors, one by an American; each approximately of twice or three times the length of those in the non-native sample) has proved the assumption, but it has also brought some surprising findings.

Papers ⁵	P1	P2	P3	P4	P5
Sentence linkers (occurrences)					
However	3	6	4	4	9
Thus	-	5	4	-	4
In addition / Additionally	1	2	1	-	2
So	-	4	-	-	2
Therefore	1	2	-	-	-
Nevertheless	-	1	-	-	1
As a result of	2	-	-	-	-
On the one/ other hand	-	1	-	-	1 / 1
Finally	-	-	-	-	2
Consequently	-	-	-	1	1

Papers ⁵	P1	P2	P3	P4	P5
Sentence linkers (occurrences)					
In particular / Specifically	-	1	1	-	1
Importantly	-	3	-	-	-
Interestingly	-	-	-	-	1
Basically / In short	-	-	-	-	1 / 1
Generally / After all	-	1	1	-	-
Indeed	-	-	1	-	-
For example	1	1	-	-	1
In other words	1	-	-	-	5

Table 3: Linkers (disjuncts and conjuncts) and their frequency in papers written by native speakers of English.

Note: Since the distribution of sentence linkers (namely causal, adversative and virtually absent sequence markers) did not reveal any dependence on the position in individual paragraphs of the papers, and since the number of paragraphs was higher than in students' essays in Table 1, a different format was chosen for Table 3.

None of the authors used sequential adverbials (*firstly, secondly*); these seem to be a favourite tool for non-native users of English. Few of them used conclusive or summarising adverbials either, though this fact might be distorted by the existence of subheadings in their papers, including *Introduction* and *Conclusion*. Generally, there are considerably fewer intersentential linkers in these texts than in non-native essays. The surprising result is the poor range of used linkers: *however* is by far the most frequent, followed by *thus, in addition/ additionally, so* and *therefore*.

4 Conclusion

Beside the expected higher frequency of inter-sentential cohesive devices, i.e. adverbial linkers, the non-native authors of formal essays display a markedly richer repertory of this type of discourse markers. Unlike the non-native users, speakers of English as first language avoid sequential and use a limited number of conclusive and summarising adverbial disjuncts, and their causal and adversative linkers in each analysed paper include just a few, usually the adversative *however* and the causal *thus, so* and *therefore*. Higher frequency and larger variety of sentence linkers in formal texts written by non-native authors probably results from exposition to teaching a formulaic pattern of academic texts, provision of a repertory of categorised linkers, as well as from the comfort stemming from the use of explicit discourse markers. Sentence linkers are a very useful tool in

logical organisation of academic texts, but they seem to be overused by language learners at the expense of alternative and less explicit cohesive devices, favoured and mastered by native writers. Abundance of sentence linkers, though correctly used, thus might be one of stylistic features which distinguish English texts written by non-native (though advanced) users from their native counterparts.

Notes

- ¹ Faculty of Education, Masaryk University in Brno, December 2007 - January 2008.
- ² Fifth Annual International Conference on the Scholarship of Teaching and Learning (SoTL) 2005, 12-13 May 2005, and Sixth Annual International Conference on the Scholarship of Teaching and Learning (SoTL) 2006, 18-19 May 2006, both held at Goodenough College, London UK.
- ³ It is certain that comparison of British/US academics and Czech university teachers of English or British/US students of education and their Czech counterparts majoring in English would have been more convenient, but samples of texts in exactly identical genres were not available.
- ⁴ This classification of adverbial connectives draws on Greenbaum and Quirk (1990: 158-187).
- ⁵ P1 – Stephen Donohue, *Embedding Student Centred Learning in the University Sector: A Case Study* (Plymouth University, UK), pp. 129-132 (133).
 P2 – Helen Johnson, *Beyond 'technicisation': the role of SoTL and Educational Development Centres in deepening and politicising the professional development of academics* (Kingston University, UK), pp. 280-287 (289).
 P3 – Greg Kitzmiller, *Specifying Critical Thinking Skills in College Classes* (Indiana University, USA), pp. 134-136 (137).
 P4 – Isabelle Marcoul, *Implementing Independent Learning with Different HE Boundaries* (City University, London, UK), pp. 351-356.
 P5 – Mike Mortimer & Lyn Greaves, *Personal Stories and SOTL in a changing HE Landscape* (Thames Valley University, London, UK), pp. 57-66 (67).

References

- Fanghanel, J., Warren, D. (eds) (2006) *International Conference on the Scholarship of Teaching and Learning. Proceedings 2005 and 2006*. London: Centre for Educational and Academic Practices.
- Greenbaum, S., Quirk, R. (1990) *A Student's Grammar of the English Language*. Harlow: Pearson Education Limited.
- Halliday, M. A. K., Hasan, R. (1976) *Cohesion in English*. Harlow: Pearson Education Limited.
- Hamp-Lyons, L., Heasley, B. (2006) *Study Writing: A Course in Writing Skills for Academic Purposes*. Cambridge: Cambridge University Press.
- Hůlková, I. (2005). 'Linking devices in English academic prose.' In: Povolná, R., Dontcheva-Navratilova, O. (eds) *Discourse and Interaction 1. Brno Seminar on Linguistic Studies in English (Proceedings)*. Brno: Masarykova univerzita. 53-60.
- McCarthy, M., Carter, R. (1994). *Language as Discourse: Perspectives for Language Teaching*. London & New York: Longman.
- Pirie, D.B. (1985) *How to Write Critical Essays: A Guide for Students of Literature*. London & New York: Routledge.