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# **Diplomová práce**

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**Rezultativní diskurzní konektory v odborném textu**

Result/inference discourse connectives in academic texts

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Prohlašuji, že jsem diplomovou práci vypracovala samostatně, že jsem řádně citovala všechny použité prameny a literaturu a že práce nebyla využita v rámci jiného vysokoškolského studia či k získání jiného nebo stejného titulu.

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## **Abstract**

The present thesis compares the use of result/inference discourse connectives in two corpora compiled by the author. The student corpus consists of 43 literary essays by Czech university students of English and American studies and the reference corpus contains 34 journal articles written by native expert writers. The main objective of the thesis was to determine to what extent students resemble professional writers in their use of result/inference connectives with respect to the frequency, position and scope of the connectives. The thesis revealed a strong overall overuse of result/inference connectives by students as well as overuse and underuse of individual connectives. It was also found that both types of writers generally prefer initial to non-initial placement of result/inference connectives; however, students more frequently use the connectives with the immediate scope.

**Key words:** result/inference connectives, frequency, position, scope, academic writing, advanced EFL learners

## **Abstrakt**

Diplomová práce porovnává užívání rezultativních diskurzivních konektorů ve dvou korpusech sestavených autorem – v korpusu vytvořeném z 43 literárních esejí českých vysokoškolských studentů oboru Anglistika-amerikanistika a v korpusu sestaveném z 34 odborných článků psaných rodilými mluvčími. Hlavním cílem práce bylo zjistit, do jaké míry se studenti v používání rezultativních konektorů shodují s profesionálními autory, a to zejména s ohledem na frekvenci, postavení ve větě a dosah konektorů. Práce ukázala, že studenti rezultativní konektory celkově výrazně nadužívají a zároveň objevila případy nadměrného i nedostatečného užívání jednotlivých konektorů. Dále bylo zjištěno, že jak studenti, tak profesionální autoři obecně dávají přednost počátečnímu postavení rezultativních konektorů ve větě, ale studenti častěji užívají konektory s užším dosahem.

**Klíčová slova:** rezultativní konektory, frekvence, postavení, dosah, odborný styl, pokročilí studenti angličtiny jako cizího jazyka

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## List of abbreviations

acad	academic prose
BA	Bachelor of Arts
CGEL	A Comprehensive Grammar of the English Language
conv	conversation
EFL	English as a Foreign Language
ESL	English as a Second Language
fict	fiction writing
I	Initial position
IM	Initial Medial position
LGSWE	Longman Grammar of Spoken and Written English
LOB	Lancaster-Oslo/Bergen Corpus
M	Medial position

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## **1 Introduction**

The present thesis studies the use of result/inference connectives in the English academic writing of advanced Czech EFL learners (university students of English and American studies) and native English speakers (professional writers who contribute to academic journals). In the academic milieu, both groups of writers become members of academic discourse community and are only successful in their roles if they can demonstrate their knowledge through language which is approved by the community. One of the key features of academic discourse is metadiscourse which includes the devices used to guide readers through the text in accordance with the writer's preferred interpretations, for example result/inference adverbials. The objective of the thesis is to determine to what extent the student writing approximates to the professional one in the use of result/inference connectives and in what aspects of that use the two text types differ.

The theoretical part of the thesis introduces the concept of academic discourse and its role for both students and academics in the academic discourse community. Following the description of metadiscourse and its types as a characteristic feature of academic discourse, the thesis discusses linking adverbials with the emphasis on their use in academic prose and on the subcategory result/inference connectives. The theoretical part is concluded by an overview of the findings and suggestions of other researchers.

In the empirical part, the texts written by students and professionals (essays and articles in the field of literary studies) are examined for differences in connective usage with respect to three main aspects. First, the aim is to compare the frequencies of result/inference connectives in the two sets of texts, and primarily to discover whether students overuse or underuse result/inference connectives in their writing in comparison to professionals. Secondly, the occurrences of the selected result/inference connectives are further analysed to identify the writers' preferences regarding the placement of the connectives in the clause, and finally a distinction is drawn between the result/inference connectives that link up to 2 sentences and those that are used to connect larger stretches of text. The thesis also seeks to establish any possible connection between the connectives' scope and the choice of position made by the writer.

## **2 Theoretical background**

### **2.1 Academic discourse**

#### **2.1.1 The role of academic discourse in the academic milieu**

The attention devoted to the study of academic discourse has grown rapidly over the past decades, especially since English began to be recognized as “the world’s leading language for the dissemination of academic knowledge” (Hyland, 2000: ix). This has had a great impact on both students and academics, who have had to adapt to the changing communicative demands and learn to use language in new ways – the insight into the conventions of English academic discourses has become a crucial condition for gaining access to the knowledge of their discipline and making a successful career. Moreover, the dominance of English has also significantly affected the conduct of research and teaching in higher education, resulting in the recognition that the knowledge of disciplinary discourses is beneficial even to the native speakers of English and in the integration of writing into many university courses (ibid.: ix).

Hyland (2009: 2) asserts that “discourse [...] is at the heart of the academic enterprise”, explaining that all kinds of social activities, such as the education of students, demonstration of learning or knowledge construction, can be accomplished only through language. At the same time, any new discovery, invention or theory becomes significant and its author renowned only after it has been made available to others. Nevertheless, in order to get their view published, writers need to adopt approved discourses and employ methods of arguing and persuading that meet the expectations of the presumed audience (ibid.). Academic discourse is therefore more than a means for conducting research and teaching students; it is a rich source of information about the social practices of academics. As Hyland (ibid.: 1) maintains, “individuals use language to write, frame problems and understand issues in ways specific to particular social groups and in doing these things they form social realities, personal identities and professional institutions”. Discourse thus constructs those social roles that frame students and academics as members of discourse communities.

## 2.1.2 The idea of “discourse community”

### 2.1.2.1 Defining discourse communities

Hyland’s conception of discourse community follows Faigley’s (1986: 535)<sup>1</sup> claim that writing “can be understood only from the perspective of a society rather than a single individual” and Geertz’s (1983)<sup>2</sup> view that “knowledge and writing depend on the actions of members of local communities”. Language is in this sense conceived as a means of communication that writers use to interact with other members of their social group and the way they use it is largely dependent on the practices characteristic of the given community.

Different authors emphasize different aspects on the basis of which individuals are gathered to form communities. Swales (1990), for example, sees a community as a group in which individuals’ use of language is impelled by their common goals, whereas e.g. Barton (1994: 57) defines the term more loosely as a group of people who share texts and practices, no matter whether they are the people reading a text, those whom the text is aimed at, or those whose participation in discourse practices consists in both reading and writing.

The view of discourse communities proposed by Hyland bears similarities to each of these approaches. He asserts that discourses evoke a “social milieu, where the writer activates specific recognizable and routine responses to recurring tasks” (Hyland, 2009: 46), thus accounting for the different uses of language in various social groups. Each discourse community is in this way characterized by its own norms, categorizations and conventions but also by a shared belief of what is conceived as interesting or relevant and therefore worth discussing (ibid.: 47). Communities thus exert a profound influence not only on how their members communicate with one another but more importantly on the ways they understand reality.

Hyland claims that every individual performs several social roles, being a member of more social groups in which he or she assumes a specific identity (ibid.: 54). The different identities are displayed at different times depending on the role one is enacting at the moment, and they establish who we are in a given context. Our identities, however, will only

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<sup>1</sup> Faigley, L. (1986). Competing theories of process: a critique and a proposal. *College Composition and Communication*, 48, 527-42. Cited in Hyland, 2000: 1.

<sup>2</sup> Geertz, C. (1983). *Local knowledge: further essays in interpretive anthropology*. New York: Basic Books. Cited in Hyland, 2000: 1.

achieve success as long as they are recognized by others. This, in turn, is conditioned by our use of approved discourses.

### **2.1.2.2 Academic discourse community**

In the academic context, writers seeking to have their view accepted and subsequently published must conform to the conventions of the disciplinary discourse communities of which they are members. These include restrictions on the way something can be said and other rhetorical strategies like the accepted form of argument or the way of presenting a theory that academics find convincing (Hyland, 2000: 1). Each discipline is characterized by its own specific discourses that its members recognize and on the basis of which it can be distinguished from other disciplines. The notion of discourse communities therefore offers an explanation of why communication seems more effortless with the members of the same discipline than among the members of different fields (Hyland, 2009: 51-52).

In addition to the professional academic writers, the academic discourse community involves those who are entirely new to the academic milieu, i.e. university students. It was noted in Section 2.1.1 that understanding academic discourse is essential for students to be able to gain information they seek; however, it is not only the passive knowledge of academic discourse that students have to acquire in order to achieve success in their studies, but also their active participation in academic practices (ibid.: 5). Hyland comments on the central importance of knowledge of academic discourse for students:

“[...] it is control of appropriate discourses which distinguishes the brilliant student from the plodder. Only through language, whether in the form of a dissertation, viva, essay assignment or unseen exam, can students consolidate and display their learning to university gatekeepers and so progress to graduation and beyond.” (ibid.: 2)

As members of academic discourse community, students are expected to create texts that will be recognized by other members. This involves adhering to such writing conventions as being more explicit about the structure and purposes of the text, more cautious in making claims, clearer in signalling connections, and generally aiming for more coherence and clarity in their writing (Clyne, 1987). As a result, they often face challenges to their communicative competence, and second language students in particular may have to overcome considerable difficulties since their ways of writing may differ significantly from those they encounter in the university.

Many of the writing conventions named above concern the use of metadiscourse in academic writing that Hyland (2000: 110) perceives as “a critical feature of good ESL and native speaker student writing”. Competency in metadiscourse is therefore vital for students’ effective participation as members of academic discourse community.

## **2.2 Metadiscourse**

### **2.2.1 Writing as a social engagement**

An important implication of the term “discourse community” is the idea of writers, readers and texts gathered in a “common rhetorical space”, where individuals use conceptual frames to “organize their experience and get things done” through their use of language (Hyland, 2009: 47). This leads to the concept of metadiscourse which is, similarly to that of the discourse community, based on a view of writing as a social engagement. Hyland (2000: 109) defines metadiscourse as “the linguistic resources used to organize a discourse or the writer’s stance towards either its content or the reader”. Metadiscourse thus serves a significant role of assisting readers to connect, organize and interpret text in a way that is preferred by the writer and that takes into consideration the understandings and values of a particular discourse community. It also offers an opportunity for the writer to express his personality and indicate his attitude towards the message of his writing (Hyland and Tse, 2004: 157).

Metadiscourse can be realized in a text through a wide range of linguistic means as there are no strictly given linguistic criteria for its identification (ibid.: 157-158). Writers can therefore use items with metadiscoursal function that were never used in this way before, and at the same time, one item can be used as a metadiscourse comment in a part of a text while serving a purely propositional function in the rest of it (ibid.: 158).

### **2.2.2 Textual and interpersonal metadiscourse**

The two main functions that have been commonly associated with metadiscourse are textual and interpersonal. The comments of the first type are chosen for the organization of discourse, whereas the other type of comments performs the role either of modifying or emphasizing certain aspects of the text and conveying the writer’s attitude to the text (ibid.).

In his earlier work, Hyland (2000) favours this distinction and adopts a modified version of Crismore et al.’s (1993: 47) classification in which the textual and interpersonal functions

are further divided into several more specific classes. In Hyland's model, textual metadiscourse involves categories labelled "logical connectives", "frame markers", "endophoric markers", "evidentials" and "code glosses" while interpersonal metadiscourse is realized in writing through "hedges", "boosters", "attitude markers", "relational markers" and "person markers" (Hyland, 2000: 111).

### **2.2.3 A new model of metadiscourse in academic writing**

Textual and interpersonal metadiscourse, however, may be difficult to separate completely (Hyland, 2000: 113). A new model of metadiscourse was therefore proposed by Hyland and Tse (2004).

#### **2.2.3.1 Key principles of metadiscourse**

The key principles which the new model of metadiscourse rests on are defined as follows:

1. "metadiscourse is distinct from propositional aspects of discourse"
2. "the term 'metadiscourse' refers to those aspects of the text that embody writer-reader interactions"
3. "metadiscourse distinguishes relations which are external to the text from those that are internal" (Hyland and Tse, 2004: 159)

Hyland and Tse (ibid.: 160) assert that it is necessary to distinguish between metadiscourse and propositional content of a text if one seeks to explore metadiscourse in academic writing. The term "proposition" is used to refer to "all that which concerns thoughts, actors, or states of affairs in the world outside the text" (ibid.: 159) whereas metadiscourse signals "whatever does not refer to the subject matter being addressed" (Williams, 1981: 226)<sup>3</sup>. Metadiscourse, however, cannot be seen as secondary to the propositional content – on the contrary, it is itself a crucial aspect of the meaning of the text. It "helps to relate a text to its context, taking readers' needs, understandings, existing knowledge, prior experiences with texts, and relative status into account" (Hyland and Tse, 2004: 161).

The textual-interpersonal duality of metadiscourse is rejected in the second principle on the grounds that "all metadiscourse is interpersonal in that it takes account of the reader's

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<sup>3</sup> Williams, J. (1981). *Style: Ten Lessons in Clarity and Grace*. Boston: Scott Foresman. Cited in Hyland and Tse, 2004: 159.

knowledge, textual experiences, and processing needs and that it provides writers with an armoury of rhetorical appeals to achieve this” (ibid.). In this way, metadiscourse is seen as embodying those interactions that are crucial for successful communication.

Depending on the context, many textual items perform either interpersonal or propositional functions, which raises the question of how to recognise their primary function in the discourse. The third principle of metadiscourse suggests a possible answer to this question, discussing the difference between internal and external relations (ibid.: 165). Relations of the former type are between propositions, connecting the situations they describe. They have a purely communicative role in a text and thus perform the interpersonal function. External relations, on the other hand, refer to the situations themselves, which means that the items expressing them are propositional in nature (ibid.). To illustrate this distinction, Hyland and Tse use several example sentences including those below.

(1) 93 questionnaires were received with 84 valid responses. Therefore the response rate for questionnaire is 37 per cent.

(2) Though there are three psychogeriatric wards in Kwai Chung Hospital, the bed occupancy is only up to 41 for both long-stay and acute elderly patients. Therefore, both Lai Chi Kwok and Kowloon Hospital Psychiatric Units have been used to provide additional beds for the long-stay and elderly patients over the last ten years, so as to ease the burden faced by the two main mental hospitals. (ibid.)

As can be seen, the conjunction *therefore* in the first example is used to connect matters in the discourse (interpersonal function), whereas in the other example, *therefore* signals the relation between matters in the world (propositional function).

### **2.2.3.2 The classification of metadiscourse**

The classification in the new model of metadiscourse builds for the most part on Thompson’s model (2001), which distinguishes interactive and interactional resources as the two main categories of metadiscourse.

Interactive resources in Hyland and Tse’s approach refer to features that guide readers through the text in accordance with the writer’s preferred interpretations. They are used to organize propositional information based on the anticipation of readers’ knowledge and the writer’s assessment of what should be made explicit for readers to arrive at the reading intended by the writer (Hyland and Tse, 2004: 168).

Interactional resources, on the other hand, are used to draw readers' attention to the writer's perspective towards the propositional information and to readers themselves, thus involving them in the argument. Metadiscourse here concerns the level of personality in a text by influencing such matters as the degree of writer's intimacy, expression of attitude, commitment to claims and extent of reader involvement (ibid.).

The subcategories of interactive and interactional resources roughly correspond to Hyland's functions of metadiscourse in academic text listed in Section 2.2.2.

In the present thesis the description of metadiscourse devices will be narrowed down only to the subcategory of interactive resources that is relevant to the subject of the thesis, i.e. the category of transitions ("logical connectives" in the original model). According to Hyland and Tse (ibid.: 168), transitions "comprise the rich set of internal devices used to mark additive, contrastive, and consequential steps in the discourse, as opposed to the external world". They are mainly conjunctions, for instance, *in addition, but, thus, and* (ibid.: 169).

The category of transitions includes conjunctions and adverbial phrases of various semantic types. This thesis is, however, concerned solely with the adverbials that Biber et al. (1999: 877) include into the category result/inference adverbials, a subcategory of linking adverbials<sup>4</sup>.

## **2.3 Linking adverbials**

### **2.3.1 The classification of linking adverbials**

Biber et al. (1999: 763) distinguish three classes of adverbials with regard to their function and the extent to which they are integrated into the clause structure: circumstance adverbials, stance adverbials and linking adverbials. Result/inference adverbials constitute a subcategory of linking adverbials.

The main function of linking adverbials is to convey the writer's perception of the relationship between two parts of discourse and thus explicitly mark the connections between passages of text (ibid.: 875). Linking adverbials have therefore a rather peripheral

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<sup>4</sup> From Section 2.4 forward, result/inference adverbials will be referred to as result/inference connectives to conform to the terminology of much previous research in the same area.



relationship with the rest of the clause and play an important role in creating textual cohesion (ibid.: 765).

In addition to the result/inference adverbials, linking adverbials comprise semantic categories of enumeration and addition, summation, apposition, contrast/concession and transition (ibid.).

### 2.3.1.1 Result/inference adverbials

Biber et al. (1999: 877) define result/inference adverbials as “the linking adverbials [...] [that] show that the second unit of discourse states the result or consequence – either logical or practical – of the preceding discourse”, for instance:

(3) This year’s commitment we will not reach this year. Therefore, we’ll be into deficit! [conv]

(4) I once acquired a set of recordings of a Bach piano concerto. I was very fond of it, but my mother was forever criticizing and chastising my poor taste [...]. Consequently, I now hardly listen to Bach. [fict]

(5) As the spatial file contains all the geometric relationships necessary to specify the body, this can be used to generate any pictorial view. It is thus not necessary to produce an engineering drawing specifically for the purpose of showing everyone what it looks like. [acad] (ibid.)

Apart from the adverbials used in the examples above (*therefore, consequently, thus*), other common resultive adverbials are *as a result, hence* and *in consequence*. In conversation, a frequent resultive adverbial is *so*. Apart from introducing the result of the event stated in the first clause, as in example (6), *so* can be used to introduce the result of the action that is not explicitly stated in the written transcription and that can be understood only from the context (see ex. 7). The interpretation of the sentence then remains highly context-dependent (ibid.: 877-878).

(6) Oh well you’ve seen it anyway, so I won’t put it on. [conv]

(7) Okay so that’s that. [conv] (ibid.: 877)

*So* may also be used as a discourse marker. In example (8), *so* has only little semantic content of its own; it is rather used to mark a return to the topic after a brief interruption (ibid.: 878).

(8) A: Now added to that by our wall there was this ruddy great lorry again. It’s a great big thing with an open back right? We – a long

B: yeah

A: open back. So they park that up on the pavement by our wall. [conv]

(ibid.: 878)

In addition to the resultive adverbials, the category involves adverbials that are labelled inferential. Biber et al. (ibid.) define them as “mark[ing] one idea as an inferred result of another”. In example (9), *then* signals the connection between the idea of the first clause and the problem arising from it that is described in the second clause.

(9) He works late. How am I supposed to get there then? [conv] (ibid.)

However, the connection could be stated more overtly, using a resultive adverbial, e.g. *therefore*: “He works late; therefore, he cannot drive me there” (ibid.).

### 2.3.2 Linking adverbials in academic discourse

Being a subcategory of linking adverbials, result/inference adverbials can be characterized by stylistic and syntactic features which apply to linking adverbials in general. The following sections will therefore focus on linking adverbials, noting the specific characteristics of result/inference adverbials where possible.

#### 2.3.2.1 Frequency of linking adverbials

Adverbials in general are infrequent in academic discourse. However, comparing the frequency of various classes of adverbials in the registers of academic prose, fiction, news and conversation, Biber et al. (1999: 765) show that linking adverbials are most common in academic prose. Still, they constitute less than 10% of all adverbials in that register, which may highlight the low frequency of linking adverbials in language in general.

The higher frequency of linking adverbials in academic discourse is due to the emphasis the register tends to put on conveying logical coherence and developing arguments. The use of linking adverbials then allows writers to overtly signal the connections between propositions as their arguments are being developed (ibid.: 767). This can be seen in examples (10) and (11).

(10) All herbivore populations can grow to the points where resources become limiting, and competitive exclusion becomes likely. However, predators potentially can reduce herbivore numbers and eliminate competition among them. [acad]

(11) We chose the first viewpoint, that is, to look at activities and the regulations required by a group of people to cooperatively execute a particular activity. The model we want to develop should therefore allow specification of such regulations. [acad] (ibid.)

Another factor contributing to the greater proportion of linking adverbials in academic discourse is that they are often gathered in parts of text where an argument comes to its conclusion, introducing several subsequent sentences (ibid.: 880):

(12) To summarize, there is no class of healthy ruminant for which the direct effects of low air temperature per se are likely to cause intolerable stress in the temperate and cool zones of the world. Moreover, the effects of air temperature on food conversion efficiency below the critical temperature are likely to affect only the smallest animals and at a time when their daily intake is very small relative to lifetime requirements. Thus there are no sound economic grounds for providing any more environmental control for the healthy animal than shelter from excessive air movement and precipitation. [acad] (ibid.)

Finally, it is also not exceptional for a single sentence to contain more than one linking adverbial (ibid.: 881):

(13) There must, in addition, be some reason why water excretion by the kidney has failed, however, since ingestion of hypotonic fluid does not ordinarily lead to progressive dilution of body fluids. [acad] (ibid.)

Even though all semantic categories of linking adverbials can be used in academic discourse for developing arguments or marking the connection between specific information and an author's point, the most common category is the category of result/inference adverbials. According to Biber et al. (ibid.), adverbials of this type are in academic prose most commonly used to "mark the conclusions that the writer expects the reader to draw" or "connect the writer's claim to supporting facts":

(14) The Census of Production includes only manufacturing industries, in which only one third of women are employed. We do not therefore have a comprehensive picture of women's, and especially their parttime, employment patterns. [acad]

(15) The sulphur compounds in the atmosphere comprise mainly sulphur dioxide derived from the combustion of sulphur containing fuels, and sulphate from sea spray. As a result, deficiency usually occurs in crops grown at great distances from these sources. [acad] (ibid.)

As far as the category “result/inference” is concerned, the most frequent adverbials in academic discourse are *thus, therefore, then, so* and *hence*, in this particular order (ibid.: 887).

### 2.3.2.2 Syntactic realizations of linking adverbials

Linking adverbials can be realized by a variety of syntactic forms: single adverbs (e.g. *anyway, however, therefore*) adverb phrases (e.g. *even so, more precisely*), prepositional phrases (e.g. *by the way, in addition, for example*), finite clauses (e.g. *that is, that is to say*) and non-finite clauses (e.g. *added to that, to conclude*) (Biber et al., 1999: 884). However, the great majority of linking adverbials in academic prose are realized by single adverbs and a considerable proportion by prepositional phrases.

The high frequency of linking adverbials realized by single adverbs is reflective of their relatively fixed meaning and “more restricted repertoire”. A single adverbial can mark the same relationship in texts with markedly different contents (ibid.:770):

(16) The 29 other defendants were found not guilty and acquitted. Only eight were released, however, because the other 21 face a second trial for "economic crimes". [news]

(17) Biliary endoprosthesis insertion for choledocholithiasis is an important alternative means of establishing drainage in selective cases < .. >. Caution must be exercised, however, in patients with an in situ gall bladder. [acad] (ibid.)

Given that single adverbs are “the most numerous and semantically varied structure that realizes linking adverbials”, a number of adverbs can be found in every semantic category (ibid.:884). The result/inference adverbials represent a large proportion of linking adverbials in academic prose with a few single adverbs (e.g. *therefore* and *thus*) commonly preferred to the others. There are also several commonly used prepositional phrases (ibid.:885):

(18) Their primary audiences may differ, as may some of their aims and in consequence, their modes of analysis and communication. [acad]

(19) Both poor and lower middle class families are the victims of a partly inadvertent war by America's elites against the indispensable sanctions and sacrifices of life in families. As a result, more and more families are becoming bitter toward welfare. [acad] (ibid.)

### 2.3.2.3 Stylistic preferences for linking adverbials

It is important to realize that the choice among linking adverbials in academic discourse is greatly dependent on individual author preferences. In the category of contrast, for instance, the generally preferred adverbial is *however*; nevertheless, in the case of other categories, authors may choose more freely from various adverbials with no change in meaning of the sentence. This is especially true of the categories “result/inference” and “apposition” (Biber et al., 1999: 889).

The category of result/inference adverbials shows marked differences in the distribution of the adverbials *therefore*, *thus* and, in particular, *hence*. More than 70% of occurrences of *hence* were found in only about a fifth of all academic texts examined by Biber et al. (ibid.). This means that the authors using *hence* chose this form repeatedly when other result/inference adverbials could have been used (ibid.: 890):

(20) The emission of electrons by a light sensitive surface, i.e., the conversion of light energy to electrical energy is virtually instantaneous. Hence, PM tubes have a very rapid response time.

In continuous flow analyzers, all specimens flow through the same tubing. Hence, carry-over or cross-contamination can occur in continuous flow analyzers if suitable precautions are not taken.

These positively charged ions are themselves highly hydrated. Hence when a current is applied, the positively charged ions move toward the cathode carrying water molecules with them. [acad] (ibid.)

As regards the adverbials *thus* and *therefore*, there is a clear preference for either of them in most academic texts – the authors commonly use one of them at least twice as much as the other (ibid.: 889).

### 2.3.2.4 Position of linking adverbials

As long as academic discourse is concerned, linking adverbials commonly occur in any of the three main positions in a clause, i.e. initial (50%), medial (40%) and final (10%) (Biber et al., 1999: 891). The initial position is considered the unmarked position of linking adverbials as its choice allows the writer to directly mark the connection between two successive clauses. The particular adverbial then informs the reader of the way in which the following discourse is to be understood in relation to the previous discourse (ibid.):

(21) The bars may be used at about hip height, where the children can transfer their weight from the floor to the bars using various parts of the body in turn. For example they can start from the feet on the floor to the seat on the bar, then turn [...]. [acad]

(22) Water plants are a source of food for fish, water snails, and other aquatic animals which are, in turn, eaten by man [...]. In addition, aquatic vegetation provides shelter and breeding grounds for fish as well as oxygenating the water and absorbing compounds from the water. [acad] (ibid.)

In addition to the initial position, the most frequent result/inference adverbials in academic prose, that is *therefore* and *thus*, tend to occur in various medial positions (ibid.: 892). Typically, they are positioned immediately after the subject:

(23) Einstein, therefore, set to work to try to demolish the accepted version of quantum mechanics. [acad]

(24) The support of Group Communication thus requires: the availability of already existing interchanged information [...] [acad] (ibid.)

Yet, *therefore* and *thus* can also immediately follow an operator (ex. 25) or be placed between a verb and a complement clause (ex. 26):

(25) It is thus necessary to generate a model in which the final design is achieved by iteration and tested against the major constraints of shape, function and manufacturing. [acad]

(26) It would appear therefore that in this particular soil type a gravimetric moisture content of about 6.0% is required before water becomes generally available to the eggs. [acad] (ibid.)

Finally, the smallest proportion of linking adverbials is to be found in final position, where only several linking adverbials commonly occur (see ex. 27). Moreover, the choice of final position is often conditioned by a particular register; *then*, for instance, is frequently used in final position in conversation (ex. 28) (ibid.: 774).

(27) Feedback systems are common in both the natural world and the works of man. It is reasonable to model predator-prey systems as feedback systems, for example. [acad]

(28) They're digging in aren't they? Loosen it a bit then. [conv] (ibid.)

## 2.4 Previous studies on discourse connectives

Discourse connectives have been the subject of numerous research papers that focus on their use in various text types written by different types of writers. The most common features the authors of these papers consider are connectives' profile, frequency and position. In addition, some authors aim to identify instances of misuse. The next sections will make special reference to the following studies: Granger and Tyson (1996), Bolton et al. (2002), Chen (2006) and Shaw (2009).

### 2.4.1 Main concerns of the studies

#### 2.4.1.1 Underuse vs. overuse

The central research question posed by the researchers concerns the overall frequency of discourse connectives in the student writing as compared to that in the reference corpus. In other words, the researchers seek to establish whether the student writing is characterized by underuse or overuse of discourse connectives.

Granger and Tyson (1996) compared French student writing with a reference corpus of native student writing (the French component of the International Corpus of Learner English; see Granger (1993)), hypothesizing that French learners would overuse connectives in their writing. The hypothesis was partly based on their teaching experience and partly on the results from previous studies but they also considered the role of mother tongue referring to Hervey and Higgins (1992: 49)<sup>5</sup> claim that texts in French are more commonly overtly structured by the use of connectives than those in English. The results of the analysis revealed no general overuse of connectives – rather than that, the authors found strong evidence of overuse and underuse of individual connectives. Importantly, the underused connectives included some of those that we classify as result/inference connectives, specifically *therefore*, *then* and *thus*.

In the same way, the teaching experience and findings from other studies formed the basis for an overuse hypothesis formulated by Chen (2006), who examined the use of connectives in the essays written by Taiwanese students. The results of the analysis confirmed that the connective density in the students' texts was somewhat higher than that in the reference corpus (compiled from 16 journal articles) and that the students made more frequent use of

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<sup>5</sup> Hervey, S. and Higgins, I. (1992). *Thinking Translation*. London: Routledge. Cited in Granger and Tyson, 1996: 19.

causal connectives (including *therefore* and *thus*) than the professionals. However, when the frequency was calculated in terms of the number of sentences instead of words (see Section 2.4.2.2), the results were almost reversed. The difference in results was attributed to the different length of sentences written by the two groups of writers – the expert writers wrote longer and more complex sentences and therefore needed to use more connectives. On the contrary, the learners' sentences were much shorter.

Another corpus-based study on connective usage was conducted by Bolton et al. (2002) and its particular importance lies in the suggestions on methodology that will be discussed in Section 2.4.2. The authors compared connective usage in three separate corpora; the writing by students in Hong Kong and Britain was compared to that by professional writers. They identified a pattern of overuse in the texts written by both groups of students, although the frequency of connectives was much higher on the part of Hong Kong students. Similarly to Chen (2006), Bolton et al. found some result/inference connectives among the connectives that were overused by the students: *so* and *thus* in the writing by Hong Kong students and *so*, *therefore* and *thus* in the writing by British students.

Shaw's (2009) research differs from that discussed in this section in that it studied the use of linking adverbials (i.e. connectives) in the writing by native and not non-native students (Bolton et al. (2002) examined both types of writing in the same study). The results revealed a much higher overall density of linking adverbials in the students' texts (as compared to the professional writing), which Shaw, as well as Chen (2006), explained by the fact that students use linking adverbials to connect propositions that are shorter and less developed than those written by professionals.

At the same time, Shaw identified an overuse pattern for the connective *therefore*, which he perceived to be a consequence of genre demands. He argued that literary-critical writing is commonly structured in the following manner: "the preview – quotation – interpretive recount – claim marker – claim sequence". Students are therefore often required "to state a position at the beginning, often in response to a prompt, and then to provide evidence for it. This means that the claim (or just the label) is often used to show that the interpretive recount confirms the position stated"(Shaw, 2009: 228). Moreover, it was suggested that professionals compensate for the lower frequency of *therefore* in their writing by using *thus*. Shaw argued that it is possible to see a difference between the two connectives: *thus* typically indicates a less direct connection between propositions and performs a more summative



function. Unlike expert writers, who often use *therefore* synonymously with *thus*, students prefer *therefore* because they make “more immediate connections between shorter units” (ibid.: 229-230)<sup>6</sup>.

#### **2.4.1.2 Profile of student writing**

Shaw (2009: 222) used the term “profile” to refer to „a list of all the adverbials ranked in order of frequency and their individual frequencies”. In the study, it facilitated a direct comparison of student and professional writing in terms of ranking and frequency of individual connectives.

The student writing in Shaw’s study featured a “typical academic writing profile” with only minor differences in frequency for several connectives. Specifically, the students’ profile showed high frequencies for the connectives *however*, *thus*, *therefore*, *for example* and *then* and low frequencies for *and* and *but* (ibid.: 226). Similarly to the overuse of *therefore* (commented on in the previous section), Shaw (ibid.: 231) assumed that all the differences in profile were a consequence of different roles of students and researchers in writing argumentative essays.

Although not using the term “profile”, Chen (2006), too, presented lists of the most frequent connectives in the learner and reference corpora ranked and ordered according to their frequencies. What she discovered was that the ranking for the four most frequently used connectives was rather similar for both groups of writers; they were *however*, *therefore*, *for instance/for example*, *thus* in the learner corpus and *however*, *for instance/for example*, *thus* and *therefore* in the reference corpus. In addition, Chen (ibid.: 122) pointed out that “both groups of writers rely[ied] heavily on a rather small set of connectors in their writing”– the occurrences of the ten most frequently used connectives constituted approximately two-thirds of all the connectives used in each of the two corpora.

#### **2.4.1.3 Position of connectives in the clause**

The analysis of connective placement formed a part of the studies by Granger and Tyson (1996) and Shaw (2009). The authors of the first study found “clear evidence of different syntactic positioning of connectors, with consistently significant overuse of sentence initial

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<sup>6</sup> Shaw’s (2009) conception of the difference between the “immediate” and “summative” functions of the connectives is further discussed in Section 3.2.

connectors” (Granger and Tyson, 1996: 24). Moreover, they suggested that the tendency to place connectives in initial position is shared by learners irrespective of their mother tongue (as indicated by Field and Yip (1992)<sup>7</sup>). To test the hypothesis, Granger and Tyson conducted a small study into the sentence-initial use of several connectives in the corpora of Dutch and Chinese student writing and received results that supported the theory.

Since Shaw analysed the use of connectives by native-speaker writers (see Section 2.4.1.1), his findings can equally be perceived as confirming Granger and Tyson's hypothesis. The students in his study resembled the professional writers in their preference for connective placement – both groups of writers used connectives in initial position slightly more often than those in non-initial positions. Some differences between the two corpora were found in the case of the position of result/inference connectives; the connectives *consequently* and *thus* were much more frequently used in the initial position by the students than by the professionals. On the other hand, most occurrences of *therefore* and *then* were non-initial in both types of writing (Shaw, 2009: 227).

#### **2.4.1.4 Misuse of connectives**

The secondary aim of much of the research on discourse connectives has been to identify possible cases of inappropriate use. Students tend to have difficulties with all, the semantic, syntactic and stylistic use of connectives. The last type of misuse is discussed by researchers most frequently (see Milton and Tsang (1993), Granger and Tyson (1996), Altenberg and Tapper (1998), Chen (2006), Shaw (2009)).

The stylistic misuse concerns the incapability of some students to distinguish between formal and less formal (or informal) connectives (*actually, anyway, besides, though, etc.*). The latter are typically confined to spoken language and therefore are not suited to be used in academic prose. Granger and Tyson (1996: 23) attributed the use of stylistically inappropriate forms to the fact that students are not adequately taught stylistics during their school and university studies and that the distinctions between spoken and written styles are not paid much attention to until the end of a university course. In the case of native speakers, the misuse commonly comes from the conversational use of connectives; on the other hand,

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<sup>7</sup> Field, Y. and Yip, L. M. O. (1992). A comparison of internal conjunctive cohesion in the English essay writing of Cantonese speakers and native speakers of English. *RELC Journal*, 23(1). 15-28. Cited in Granger and Tyson, 1996: 24.

non-native speakers' misuse of connectives can be explained by a variety of reasons (Shaw, 2009: 232).

A close examination of students' texts also revealed instances of misleading use of several connectives, such as *moreover* and *on the contrary* (see Granger and Tyson (1996): 22-23). What is of interest to this paper is that Chen (2006: 125) discovered instances of misuse of the connective *therefore*, that some learners used to connect two ideas between which no logical connection existed. Crewe (1990: 321) maintains that in this case the connectives function merely as "surface-level fillers" and in using them, the students intend to "impose surface logicity on a piece of writing where no deep logicity exists" (ibid.: 320).

Finally, the use of excessive number of connectives in text is also considered inappropriate. The consequence of such a misuse is often an incoherent and fragmented nature of the text (Chen, 2006: 125-126).

## **2.4.2 Methodological issues**

### **2.4.2.1 Data selection**

Some of the authors of the studies discussed in the previous sections emphasize the role of the proper choice of data in obtaining results that are meaningful. What they mostly refer to is the comparability of the data under investigation, which includes generic homogeneity of the student writing and the use of a comparable reference corpus.

Granger and Tyson (1996: 18) explain that the problem with the results of many contrastive studies is that "the data are rendered meaningless by fundamental differences in both data and research methods". For this reason, their choice of material fulfilled the criteria established for the compilation of the International Corpus of Learner English, by which the analysed data comprise essay writing by advanced EFL (not ESL) learners and a reference native speaker corpus composed of the same type of writing. The argumentative essay writing is deemed well suited to the conduct of contrastive research of this type for two reasons: First, this genre is likely to feature a greater number of connectives than other types of writing and secondly, essay writing provides complete texts and therefore is especially suitable to the study of cohesion, coherence, and other textual problems that may cause difficulties even to advanced students. In order to ensure the meaningfulness of the results,

Granger and Tyson (ibid.:19) insist that the reference corpus must be compiled from comparable native student essay writing.

Similarly, Shaw (2009: 219-220) regards essay writing as the ideal text type for the study of discourse connectives; however, asserting that “patterns of linker usage are discipline-specific,” he proposes that student essay writing should come from a single discipline. Unlike Granger and Tyson (1996), Shaw’s reference corpus consisted of research articles by professional writers; the proper choice of discipline that would ensure the comparability of the two corpora was therefore even more significant than in the case of the comparison between native and non-native students. The discipline chosen for Shaw’s research was literary studies, which Shaw (2009: 220) explains in the following way: “an advantage of literary studies as an area for comparing student and professional writing is that both researchers and learners are expected to express an original response to the work of art in a form that is not openly stereotyped. The student has to display her skills by finding a new angle rather than by reproducing knowledge, so it is an area where research and learner genres might not be very different”.

The use of reference corpus that comprises texts written by professional writers is supported by Bolton et al. (2002) who also assume that the target model for student writing is best represented by a corpus of published academic writing in English (this view was subsequently adopted by Chen (2006)). At the same time, Bolton et al. criticize the use of general corpora, such as Brown and LOB (used e.g. by Milton and Tsang (1993)) and the choice of native student writing (e.g. Granger and Tyson (1996), Altenberg and Tapper (1998)) as the model for EFL students.

#### **2.4.2.2 The calculation of ratio of frequency**

In addition to the type of material, the results of the studies may differ depending on the approach chosen to calculate the frequency of connectives in the corpora.

Most of the corpus-based studies adopt a “word-based” calculation. This means that the ratio of connective occurrences is either calculated by dividing the number of words in a corpus with the number of connectives (e.g. Milton and Tsang (1993)) or presented as a number of connectives per 10,000 or 100,000 words (Granger and Tyson (1996), Altenberg and Tapper (1998)).

Bolton et al. (2002: 172), however, perceive these methods as flawed, arguing that connectives perform cohesive functions between sentences or higher units and not between words. As a result, they suggest that the basic unit for analysis should be sentence. The importance of the careful choice of approach was confirmed by Chen (2006: 123), who believes that “both word- and sentence-based analysis need to be included to arrive at a more holistic description of the connector usage”. Chen calculated the frequency of connectives in her study in both ways: frequency per 10,000 words and per 1,000 sentences with significant differences in the results – the overuse hypothesis was confirmed by the results of the word-based calculation only (see Section 2.4.1.1).

### 3 Material and methodology

#### 3.1 Material

The primary data used for the analysis comprise literary essays contributed by students of the English and American Studies BA programme at the Faculty of Arts, Charles University. The essays were written as a part of the examination in their literature course, namely “The Literatures on the British Isles: From Renaissance to Restoration”, which is intended for the second-year students in the BA programme. All the students willing to participate in the analysis were asked to give written consent for their text(s) to be used in the compilation of the corpus and at the same time, to fill in a questionnaire concerning their language background. On the basis of the information obtained from the questionnaires, the essays of the students suited to the participation in the project (only Czech learners of English as a foreign language are of interest to this study) were included in the corpus. In total, the student corpus consists of 33 short (average text length: 801 words) and 10 long (average text length: 2,062 words) essays contributed by 34 students.

The reference corpus (henceforth article corpus) was compiled with respect to the observation made by previous researchers (see Section 2.4.2.1), who emphasize the importance of the comparability of data under investigation. For this reason, three electronically available journals were chosen to provide articles that represent essay writing by professional writers: *English Literary Renaissance*, *Renaissance Studies* and *Shakespeare Quarterly*. The individual articles were then selected to thematically correspond to the students’ essays. Altogether 34 articles (by different authors, in order to help reduce idiosyncrasies of individual writers) were used to equal the number of students whose essays were used for the compilation of the student corpus.

Once all the texts were gathered, they were converted to an electronically searchable format and cleared of any textual material apart from the pure essayistic writing (e.g. the title, author’s name, references and others). At the same time, footnotes and block quotations were removed so that they would not disturb the results of the analysis regarding the total number of words or the type and number of authors. Consequently, the total word count is 47,068 words for the student corpus and 234,877 words for the article corpus. Given the markedly different word counts of the two corpora, the ratio of connective occurrence is presented in terms of the frequency per 10,000 words and following the recommendation by Bolton et al. (2002) and others also as the number of connectives per one hundred sentences.

The student corpus consists of 1,882 and the article corpus of 7,155 sentences. The average sentence length in the student corpus is 25 words; in the article corpus the sentences are generally longer, with the average length of 32.8 words per sentence.

Subsequently each of the students' essays was assigned a unique numerical code to secure anonymity and labelled "es" or "el" referring to either the short or the long essay, respectively. The articles, too, were assigned the label "p" standing for a "paper" and a number under which its author figures in the analysis.

**Table 1:** Size of the corpora

	authors/texts	sentences	words
student corpus	34/43	1,882	47,068
article corpus	34/34	7,155	234,877

### 3.2. Methodology

The analysis of the corpora was facilitated by means of AntConc, a software programme designed for linguistic analysis of texts. The benefits of the programme to our analysis are twofold: first, it can locate and count all the occurrences of result/inference connectives in each set of texts, thus relieving the researcher of the extremely time-consuming task of manual extraction; secondly and more importantly, the programme's concordance tool shows the discovered connectives in their wider context so that a closer analysis of the use of individual result/inference connectives can be performed.

The result/inference connectives studied in the analysis are the maximum list of resultive adverbials compiled from a variety of sources including grammars and lists of connectives used in previous research: *as a consequence, as a result, accordingly, consequently, hence, in consequence, so, then, therefore, thus*. The initial searches have, however, pointed to a possibly problematic aspect of some of the adverbials included in the list – *accordingly, so, then* and *thus* are in addition to their function as a result/inference connective used in various other functions. For example, compare the use of *then* in the following paragraph, where the first occurrence has a listing role while the other is a result/inference connective<sup>8</sup>:

- (1) Then [listing] the author claims that he knows that his love cannot be immortal because humans are mortal, but that his verse can last until the end

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<sup>8</sup> The other potential uses of the adverbial forms that function as result/inference connectives are fully discussed in Section 4.1.1.

of eternity because poetry can, unlike other things, stay unchanged forever: “To die in dust, but shall live by fame; / My verse your virtues rare shall eternise,” (lines 10-11). The poetry then [resultive] can preserve also its author and his love as we see in the metaphor “[m]y verse your virtues rare shall eternise”. [es03]

As (ex. 1) illustrates, the concordance lines for *then* show the resultive use of the adverbial together with the instances of its other uses. In order to eliminate the occurrences that are not relevant to this thesis, it would have been necessary to go through all the search results for the adverbials in question and tag the different functions of the adverbials manually. Having considered the high number of occurrences and the frequently ambiguous use of *so*, *then* and *thus* that would complicate the manual sorting out of the results, it was decided that the closer analysis<sup>9</sup> would be limited to the clearly resultive adverbials only. The selected adverbials are the top four most frequent result/inference connectives in both corpora: *therefore*, *as a result*, *hence* and *consequently*.

The analytical part of the present thesis is thus divided into two main sections. Section 4.1 compares the corpora in terms of frequency of all the adverbials used to express result/inference relations: *as a consequence*, *as a result*, *accordingly*, *consequently*, *hence*, *in consequence*, *so*, *then*, *therefore* and *thus*. The number of occurrences of the individual connectives in the corpora was first counted automatically (by means of AntConc). The concordance lines of the multi-functional adverbials were then checked manually, and only the result/inference uses of the connectives were included in the frequency counts. The ambiguous instances were excluded from the counts. However, the two functions of *thus* (“result/inference” and “in this way”, see Section 4.1.1) are so close to each other that it proved almost impossible to tease out the result/inference uses. It was therefore decided to include all the uses of *thus* in the frequency counts, noting this exception wherever necessary. The results concerning the difference in the overall frequency of result/inference connectives were then calculated manually. All the data are presented in tables and include the results of the word-based and the sentence-based calculations. In addition, the section provides an overview of the various functions of the adverbials *so*, *then*, *thus* and *accordingly*.

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<sup>9</sup> The “closer analysis” refers to that part of the analysis that studies the connectives’ frequency (distribution), position and scope.



Section 4.2 presents the results of a more detailed analysis of the selected connectives. The adverbials *therefore*, *as a result*, *hence* and *consequently*, which are used exclusively as result/inference connectives, were studied in terms of three aspects: frequency (distribution), position and scope. Another difference between the two parts of the analysis consists in the fact that while the quantitative overview in part 4.1 covers all result/inference uses of the connectives, the latter part of the analysis (4.2) focuses on inter-clausal connections only. Before the analysis whose results are presented in Section 4.2 was conducted, the concordance hits for *therefore*, *as a result*, *hence* and *consequently* retrieved by the programme were further sorted to remove those uses in which the connectives are part of run-in quotations (ex. 2) or in which they link phrases (i.e. not clauses or sentences) to preceding discourse (ex. 3).

- (2) Collecting on forfeitures of money has indeed been Shylock's frequent expectation, as Antonio explains when he is imprisoned for debt: "I oft delivered from his forfeitures / Many that have at times made moan to me; / Therefore he hates me". [p06]
- (3) [...] Antonio represents a considerably dissonant note that jeopardizes the concretization of the romantic plot, hence his ostensible exclusion at the end of the comedy. [p13]

Similarly to the block quotations whose removal was commented on in the part discussing the compilation of the two corpora, the connectives found in short quotations were not included in the analysis to prevent any distortion of the results with respect to the number and type of authors. The exclusion of the connectives that link phrases relates primarily to the analysis of position. In the present thesis, the position of connectives is perceived as a choice (either conscious or unconscious) on the part of the writers, which can be, in addition to other factors like the number of auxiliaries in the clause or a desire to emphasize certain elements of the text, affected by the writer's intention regarding the scope of the connective. In order to be able to make assertions about the writers' choices and therefore their use of result/inference connectives, there has to be a variety of positions in which the connective can occur. Since the connectives linking phrases to the preceding discourse are fixed in their position (commonly, they are placed initially), such occurrences of the connectives are not suitable for the analysis.

Finally, the results in Section 4.2 do not include two occurrences of *consequently* extracted from the student corpus in which the author wrongly ascribes the connective a listing function:

- (4) So far it has been shown that the poet's sight is at war with the mind when enchanted by love and its alchemy in Sonnet 114. Consequently, it has been demonstrated that his sight is also at battle with the heart in Sonnet 24. Finally, a truce between the poet's sight, heart and mind is called in Sonnet 47. [el07]

The analysis of frequency revealed a high number of occurrences of the connective *therefore* in both corpora while the connectives *as a result*, *hence* and *consequently* were less frequent in the articles and distinctly rare in the essays. As a result, the sections discussing the connectives' distribution, position and scope (4.2.1.2, 4.2.2 and 4.2.3) are largely dedicated to the description of *therefore*. The other three connectives are discussed more briefly in separate sections.

In addition to the frequency of the selected result/inference connectives in the student and professional writing in general, Section 4.2.1 studies the frequency of the connectives in the writing of individual writers, i.e. the connectives' distribution. The concordance tool in AntConc displays the name of the text file that the retrieved concordance is extracted from which enabled each use of the connective to be easily assigned to its author. This should not only prevent potentially false claims with regard to the general overuse or underuse of the connectives by either of the groups but also lend new insight into the use of result/inference connectives by different writers. The results are presented in figures for a clearer illustration.

The classification of the connectives' position adopted in this thesis (Section 4.2.2) is based on that proposed by Quirk et al. (1985: 491-500) for the placement of adverbials in general. Three basic types of connective placement are distinguished here: initial, medial and final, each having a number of variants. The individual types of position are discussed in separate subsections and illustrated by one example from each of the corpora wherever possible. The connective occurrences whose position cannot be determined uniquely are included in the category labelled "initial/medial position".

The section concerned with the connectives' scope (4.2.3) follows Shaw's (2009) observation that students tend to use *therefore* to make more immediate connections between shorter stretches of text, while in the professional writing, the connective has a more summative function. In his view, professionals commonly make claims that have several

successive levels. Each claim serves as a basis for another, wider claim and the connective marks only the highest level of claim. As a result, there is a less direct connection between the levels linked by the connective while at the same time, the highest level of claim summarizes all the preceding levels. Students, on the other hand, typically use the connective for a first-level claim. Since Shaw (2009) does not use any term for the two types of connective usage, in the present thesis, the terms “immediate scope” and “summative scope” are chosen to best describe the different functions of the connective. Not only *therefore*, but all the selected connectives (*therefore, as a result, hence* and *consequently*) in both sets of texts are studied for their scope. Some of the examples used in this section are quoted at some length to illustrate the characteristic features of the use of the connective with a summative scope. They are extracted from both – the student corpus and the article corpus.

The concluding remarks in sections 4.2.1, 4.2.2 and 4.2.3 summarize the main differences in the use of the selected result/inference connectives between students and professional writers. Finally, a section follows which aims to take into consideration a possible dependency of the connective placement on the scope with which the connective is used in the text. For the sake of clarity, the connectives *therefore, as a result, consequently* and *hence* are analysed together and the results concern the whole set of connectives. The analysis does not include the initial/medial position as the results would not be in any way relevant.

All the occurrences of the result/inference connectives that were studied in the latter part of the analysis (4.2) can be found in the appendix that is included at the end of the thesis. The whole set of texts used for the compilation of the student and article corpora is available at the Department of English Language and ELT Methodology, Faculty of Arts, Charles University.

## 4 Analysis

As mentioned in the methodological part of the present thesis (see Section 3.2), the analysis of result/inference connectives in the student and article corpora is divided into two sections (4.1 and 4.2).

Section 4.1 gives an overview of the frequency of all the result/inference connectives, i.e. all the adverbial forms that can function as result/inference connectives (as listed in literature, cf. Section 3.2) in the two corpora, i.e. *as a consequence*, *as a result*, *accordingly*, *consequently*, *hence*, *in consequence*, *so*, *then*, *therefore*, *thus*. Some of these adverbials, namely *so*, *then*, *thus* and *accordingly*, can also perform functions other than that of result/inference connectives. These functions are listed below, and were excluded from the frequency counts. However, the two functions of *thus*, “result/inference” and “manner”, proved so close to each other that it was impossible to separate them systematically. The frequency counts for *thus* therefore comprise instances of both its functions.

Section 4.2 gives a detailed quantitative and qualitative description of four connectives which are tied exclusively with the result/inference function, i.e. *therefore*, *as a result*, *hence* and *consequently*. Another difference between Sections 4.1 and 4.2 consists in the scope of the connectives. While the quantitative survey in Section 4.1 covers all uses of the connectives, Section 4.2 focuses on the inter-clausal connective uses of the adverbials only.

### 4.1 Overall characteristics of result/inference connectives

#### 4.1.1 Functions of potential result/inference connectives

Four out of ten adverbials listed as potential result/inference connectives in literature fall into more than one functional category. Given the high number of occurrences of some of the adverbials which can function as result/inference connectives (particularly in the article corpus), a detailed classification of different uses of these adverbials would substantially exceed the limits of the present thesis. Therefore, this section presents an overview of the various functions of *so*, *then*, *thus* and *accordingly* that were found in the corpora<sup>10</sup> but only the result/inference uses of *so*, *then* and *accordingly* are considered in the quantitative analysis in Section 4.1.2. As explained above, all the instances of *thus* are included in the

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<sup>10</sup> For the purpose of illustration only, all the examples in this section are extracted from the student corpus (with the exception of ex. 17).

frequency counts. The function of the adverbials *therefore, hence, consequently, as a result, as a consequence* and *in consequence* is limited to expressing result/inference relations.

In addition to being a linking adverbial (ex. 1) the adverbial *so* is frequently used as a circumstance adverbial to intensify the meaning of an adjective or an adverbial (ex. 2) or to express the degree to which two things are similar (in comparisons) (ex. 3). In a few instances, *so* functions as an anaphoric proform (ex. 4).

- (1) One of them awaits a simple answer yes or no, so he uses a very understandable language without any figures, whereas Sidney's narrator asks a highly philosophical question so he also has to use higher language containing ambiguities and abstraction. [es02]
- (2) The speaker believes that their love is so unique they should be canonized and it should work as a "patterne" for all the other couples by whom they will be invoked. [es31]
- (3) Modern reader is of course entertained by the transformation; however the effect is not so great as it was in Elizabethan era. [el13]
- (4) If he wanted to pay homage to Shakespeare as a person, he failed to do so because he only wrote about the commonly shared idea of the poet. [es24]

*Then* performs a linking function of two types; it is either used to express the result/inference relationship (ex. 5) or to impose a particular structure to a list as a listing adverbial (ex. 6). In addition, *then* can be a circumstance adverbial with the meaning "at that time" (ex. 7), and it is also worth mentioning that students often mistake *than* for *then* when they intend to use the preposition/conjunction for comparison or contrast (ex. 8).

- (5) When contrasting two poems, one tends to think of them as if they were complementary, opposing elements. [...] Right in the beginning of my text, I have to, then, state, that I will treat these two poems as if they created complementary poles of the memorialization concept, although I refuse that there would be anything as such in general. [es24]
- (6) The three quatrains in Sonnet 60 all use different imagery to describe human life in relation to time. The first quatrain uses the water imagery, then it is followed by the image of rise and eclipse of a sun and finally there is a series of violent extinctions. [es19]

- (7) While he acts as a largely stereotypical representation of some of the vices commonly ascribed to Jews (back then, sadly, as today), like greed and cruelty, Jessica seems rather unaffected by her origin. [es22]
- (8) This changes, however and Portia becomes even wittier and more cunning then any of the men in the play as she disguises herself as a man. [el06]

As noted in the previous sections, the adverbial *thus* can also have two semantic roles as a linking adverbial; except for the result/inference role (ex. 9), it is used as an appositional linking adverbial meaning “in this way” (ex. 10). Example (11) shows a typical use of *thus* in a sentence in which the different roles are impossible to distinguish.

- (9) Suddenly, the appearance of a diseased person is redundant for Volpone, thus he disposes the mask which consequently proves fatal. [el13]
- (10) Further, he labels them as “birds of prey” and thus suggests clearly to the viewer that their behaviour is similar to that of an animal. [el21]
- (11) In “Sonnet 130” the speaker uses exactly the same exaggerated, clichéd metaphors that he wants to ridicule, and thus he explicitly shows how meaningless and shallow they had become. [el12]

Finally, as long as the adverbial *accordingly* is concerned, the student corpus contains only the circumstance adverbial use meaning “in a way that is suitable or right for the situation”<sup>11</sup> (ex. 12). An example of the result/inference role of the adverbial is therefore extracted from the article corpus (ex. 13).

- (12) Here we can also see that from Volpone, Celia is not a woman he loves – she is a mere “opportunity“ and he treats her accordingly. [el11]
- (13) But the poet's employment of an obsolete scientific ocular model occurs alongside what I shall demonstrate to be a zealous incorporation of scientific fact into his verse; he is both traditionalist and innovator. Accordingly, this helps to create what Jonathan Sawday has described as a ‘radically schizophrenic’ text. [p16]

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<sup>11</sup> Accordingly [Def. 1]. In *Cambridge Dictionary*. Retrieved September 20, 2016, from <http://dictionary.cambridge.org/dictionary/english/accordingly>.

#### 4.1.2 Frequency of result/inference connectives

The frequency of result/inference connectives<sup>12</sup> in the student corpus and professional writing is given in Tables 2 and 3. The quantitative results can point to some notable differences between the two types of writing.

The overall frequency of result/inference connectives in the students' texts is considerably higher than that in the articles (33.3 and 20.8 connectives per 10,000 words, respectively), which may be suggestive of the fact that students considerably overuse result/inference connectives in their writing (in comparison to professional writers). However, the accuracy of the claim is to a large degree limited by the word-based calculation of the ratio of occurrence – once the results are presented as the number of connectives per 100 sentences, the difference in the connective density between the two corpora is much less pronounced (8.3 connectives per 100 sentences in the student corpus and 6.8 connectives per 100 sentences in the article corpus). The inclusion of both types of analysis as proposed by Chen (2006, see Section 2.4.2.2) thus proved to be of profound significance for the comparison of the two corpora. The fact that the difference between the results is less pronounced in the case of the sentence-based calculation can be similarly to the results in Chen's study (2006) explained by the different lengths of the sentences in the essays (25 words per sentence) and in the articles (32.8 words per sentence).

**Table 2:** Total frequency of result/inference connectives in the student corpus<sup>13</sup>

	Raw frequency	Frequency per 10,000 words	Frequency per 100 sentences	Percentage (%)
<i>therefore</i>	59	12.5	3.1	37.6
<i>thus</i>	47	10.0	2.5	29.9
<i>so</i>	29	6.2	1.5	18.5
<i>then</i>	7	1.5	0.4	4.5
<i>consequently</i>	7	1.5	0.4	4.5
<i>hence</i>	4	0.8	0.2	2.5
<i>as a result</i>	4	0.8	0.2	2.5
<i>accordingly</i>	-	-	-	-
<i>as a consequence</i>	-	-	-	-
<i>in consequence</i>	-	-	-	-
<b>total</b>	<b>157</b>	<b>33.3</b>	<b>8.3</b>	<b>100.0</b>

<sup>12</sup> Only the result/inference uses of the adverbials were included in the frequency counts, with the exception of *thus*, where all instances of the adverbial had to be included (see 3.2 and 4.1.1).

<sup>13</sup> The adverbials are arranged in frequency order. The highlighted lines mark the adverbials that are further analysed in the following sections.

**Table 3:** Total frequency of result/inference connectives in the article corpus<sup>13</sup>

	Raw frequency	Frequency per 10,000 words	Frequency per 100 sentences	Percentage (%)
<i>thus</i>	178	7.6	2.5	36.5
<i>then</i>	93	4.0	1.3	19.1
<i>so</i>	79	3.4	1.1	16.2
<i>therefore</i>	64	2.7	0.9	13.1
<i>hence</i>	28	1.2	0.4	5.7
<i>consequently</i>	16	0.7	0.2	3.3
<i>as a result</i>	15	0.6	0.2	3.1
<i>accordingly</i>	7	0.3	0.1	1.4
<i>as a consequence</i>	5	0.2	0.1	1.0
<i>in consequence</i>	3	0.1	0.0	0.6
<b>total</b>	<b>488</b>	<b>20.8</b>	<b>6.8</b>	<b>100.0</b>

In addition to the overall frequencies of the connectives, the initial search offered some insights into the writers' preference with regard to the choice of connectives used to express the result/inference relationship, i.e. the writers' profiles.<sup>14</sup> While the professional writers use all the connectives that the corpus was searched for (however infrequently they opt for them), the students' profile does not include the connectives *accordingly*, *in consequence* and *as a consequence*. In fact, it seems that while the expert writers choose freely from all the variants: *consequently*, *as a consequence* and *in consequence*, the students make use of the single-word adverb only.

The four most frequently used connectives are similar for both groups of writers with minor differences in their rankings: *therefore*, *thus*, *so* and *then*<sup>15</sup> in the student corpus and *thus*, *then*, *so* and *therefore* in the article corpus. A notable difference between the students' and professionals' profiles concerns the connective *therefore*, whose occurrences in the student corpus are approximately 4.6 times (word-based calculation) or 3.4 times (sentence-based calculation) more frequent than in the article corpus. It seems mostly due to the

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<sup>14</sup> The findings concerning the profiles of the two groups of writers are of a limited value since the list of result/inference connectives was determined in advance of the search, i.e. any other connectives (unknown to the author of the present thesis) or means of expressing the result/inference relationship are not considered here.

<sup>15</sup> In the case of the student corpus, we should rather consider the five most frequent connectives because the counts for *then* are similar to the number of occurrences of *consequently*.



extremely frequent occurrence of *therefore* in the student corpus that the students are seen to generally overuse result/inference connectives in the present thesis.

Even though the students generally overuse the above connectives in their writing, several connectives appear more frequently in the professional writing: *hence*, *then*, *accordingly*, *as a consequence* and *in consequence* (the last three have no occurrences in the student corpus).

## 4.2 Selected connectives: *therefore*, *as a result*, *hence* and *consequently*

### 4.2.1 Frequency and distribution of the selected connectives

#### 4.2.1.1 Frequency

On the basis of the findings presented in the previous sections, four connectives were selected for further research: *therefore*, *consequently*, *hence* and *as a result*. The selected connectives are the most frequent adverbials found in both corpora that function as linking adverbials and express the result/inference relationship only. The results concerning the frequency of the individual connectives differ from those presented in Section 4.1.2 because Section 4.2 examines only the inter-clausal uses of the connectives.

**Table 4:** Frequency of the selected connectives in the student corpus<sup>16</sup>

	Raw frequency	Frequency per 10,000 words	Frequency per 100 sentences	Percentage (%)
<i>therefore</i>	56	11.9	3.0	88.9
<i>consequently</i>	5	1.1	0.3	7.9
<i>as a result</i>	2	0.4	0.1	3.2
<i>hence</i>	-	-	-	-
<b>total</b>	<b>63</b>	<b>13.4</b>	<b>3.3</b>	<b>100.0</b>

**Table 5:** Frequency of the selected connectives in the article corpus<sup>16</sup>

	Raw frequency	Frequency per 10,000 words	Frequency per 100 sentences	Percentage (%)
<i>therefore</i>	46	2.0	0.6	63.9
<i>consequently</i>	15	0.6	0.2	20.8
<i>as a result</i>	7	0.3	0.1	9.7
<i>hence</i>	4	0.2	0.1	5.6
<b>total</b>	<b>72</b>	<b>3.1</b>	<b>1.0</b>	<b>100.0</b>

Tables 4 and 5 show that the selected connectives are generally much more frequent in the student corpus - in terms of the word-based calculation, the number of connectives in the essays is more than four times higher than in the articles. Similarly to the results in Section 4.1.2, the difference between the overall frequencies of *therefore*, *consequently*, *as a result* and *hence* in the two corpora is primarily due to the extremely frequent use of *therefore* in the student writing (11.9 occurrences per 10,000 words). Here, the difference in the number

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<sup>16</sup> The connectives are arranged in frequency order.

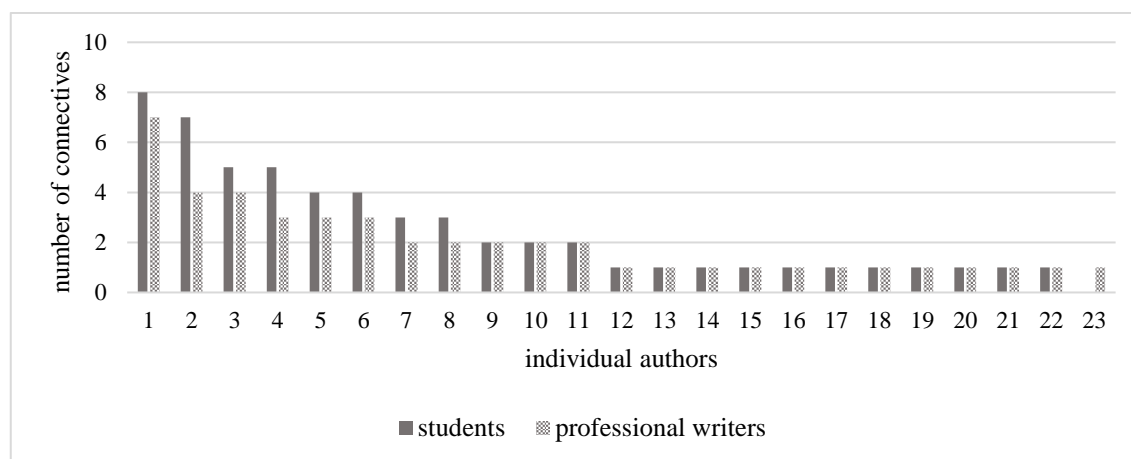
of occurrences of *therefore* is even more marked than in the case of the unsorted results (presented in Section 4.1.2) because the expert writers often use the connective to link units smaller than clauses – such occurrences were excluded from the closer analysis (see Section 3.2). As regards the other connectives, the results show a considerably larger proportion of *consequently*, *as a result* and *hence* in the article corpus (altogether 36.1%) than in the student corpus (altogether 11.1%), where *therefore* overwhelmingly predominates. *Consequently* was used only 5 times and *as a result* only twice while there is no instance of the use of *hence* to connect clauses or sentences in the essays (yet, in the article corpus, *hence* occurs only rarely too).

#### 4.2.1.2 Distribution

##### *therefore*

Having studied the distribution of the individual occurrences of the selected result/inference connectives among the writers, it was discovered that the results should not be perceived as conclusive in that *therefore* is generally preferred by the writers. Figure 1 shows that only 23 professional writers (67.6%) and 22 students (64.7%) used *therefore* in their writing, and approximately half of them used it only once. On the other hand, several authors in both corpora have up to 8 occurrences of *therefore* in their writing and at least 3 occurrences were found in the writing of 8 students and 6 authors of the articles. This means that almost 70% of the occurrences of *therefore* in the student corpus were used by only approximately a quarter of students (23.5%) whose texts were analysed. As regards the professional writing, more than a half of the occurrences (52.2%) were found in approximately 18% of the texts.

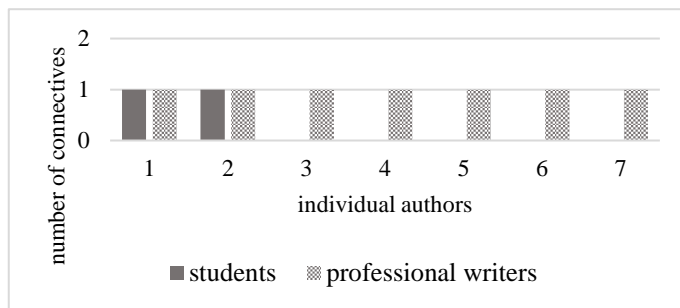
**Figure 1:** Distribution of *therefore*



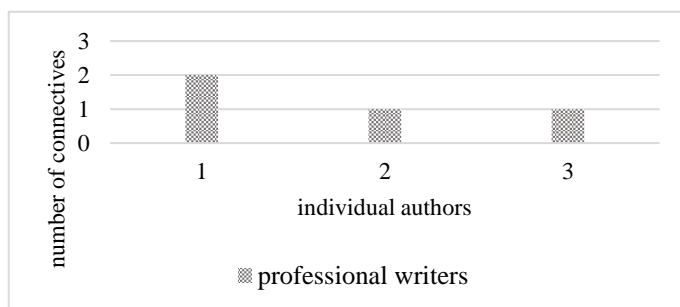
### other connectives

The analysis of the distribution of the other three result/inference connectives indicates that writers in general use these connectives only marginally. The connectives *consequently* and *hence* are not used by the same writer more than twice except for one professional writer who has 3 occurrences of *consequently* in his or her writing<sup>17</sup> (see Figures 3 and 4). It is also worth noticing that unlike the students, all the professional writers that have chosen *consequently* to mark result/inference relationship in their writing used it at least twice. The connective *as a result* seems to be even less favoured by the writers; Figure 2 shows that in both corpora, each occurrence was found in a text of a different writer. In addition, it was discovered that 85.7% of the occurrences of *as a result* and *consequently* in the student corpus were extracted from the “long” essays, which indicates that students tend to use these connectives when they attempt to avoid the recurrent use of the most common result/inference connectives (e.g. *therefore*).

**Figure 2:** Distribution of *as a result*

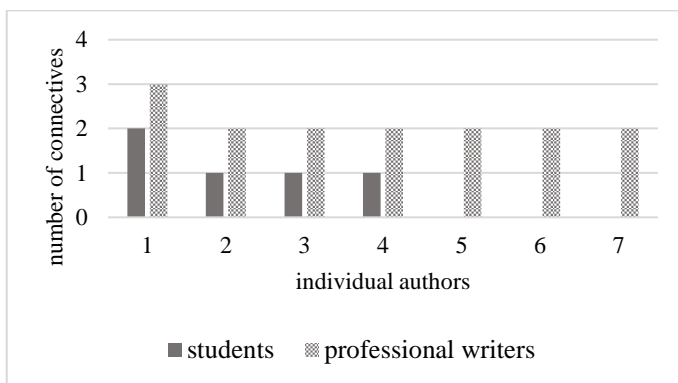


**Figure 3:** Distribution of *hence*



<sup>17</sup> In spite of the low number of occurrences of *consequently* in the writing, this particular writer’s choice of *consequently* might still be considered a manifestation of his or her individual preferences at least in the sense that the writer favours *consequently* over the commonly preferred *therefore* which he or she used only once.

**Figure 4:** Distribution of *consequently*



#### 4.2.1.3 Frequency and distribution: concluding remarks

The results of the analysis of frequency confirm the findings of many of the previous researchers in that the most overused result/inference connective by the students is *therefore*. However, the analysis of the connectives' distribution revealed that the extensive use of *therefore* in the student writing to a large extent results from the personal preferences for the connective of some of the writers and that only about a third of the students used *therefore* at least twice. A similar tendency was noted in the case of the professional writers. In contrast to *therefore*, the other selected connectives are seldom used by both groups of writers; yet, the number of occurrences of *consequently* in the article corpus is not negligible. What is rather unexpected is the extremely low or no occurrence of *hence* in the professional and student writing, respectively.

## 4.2.2 Position of the selected connectives

### 4.2.2.1 Initial position

#### therefore

It was mentioned in the theoretical part (Section 2.3.2.4) that although linking adverbials commonly occur in all positions in the clause, it is the initial one that is considered their “unmarked” position. Thus, it was the initial position that the selected result/inference connectives were expected to occupy in the two analysed sets of texts most frequently. As long as the connective *therefore* is concerned, the results of the analysis of the student corpus closely correspond to the numbers given in *LGSWE* (1999, see 2.3.2.4). Approximately 50 per cent of the instances of *therefore* (see Table 6) are placed in initial position, i.e. preceding other clause elements:<sup>18</sup>

(14) Therefore, the sonnet’s central theme of memorialization is reiterated by its structure. [es07]

Similarly, the texts written by professional writers feature a large proportion of clauses introduced by *therefore* in initial position (37.0%), although these clauses do not constitute the majority:

(15) Therefore, the reestablishing of boundaries in the final stanzas both concludes Spenser’s ethical allegory of temperance and serves to distinguish Spenserian from Acrasian poetry. [p11]

**Table 6:** Position of *therefore*

	student corpus		article corpus		total (both corpora)	
	Σ	(%)	Σ	(%)	Σ	(%)
initial	29	51.8	17	37.0	46	45.1
(initial medial)	(2)	(3.6)	(4)	(8.7)	(6)	(5.9)
medial (medial medial)	19 (14)	34.0 (25.0)	23 (19)	50.0 (41.3)	42 (33)	41.2 (32.4)
(end medial)	(3)	(5.4)	-	-	(3)	(2.9)
final (initial final)	-	-	4 (1)	8.7 (2.2)	4 (1)	3.9 (1.0)
(end final)			(3)	(6.5)	(3)	(2.9)
initial/medial	8	14.2	2	4.3	10	9.8
<b>total</b>	<b>56</b>	<b>100.0</b>	<b>46</b>	<b>100.0</b>	<b>102</b>	<b>100.0</b>

<sup>18</sup> “In effect, this generally means the position immediately before S” (Quirk et al., 1985: 491) since the adverbial can be preceded by a conjunction, e.g. *He wants to “worship” gold, because it is what he most loves, and therefore he attributes to it almost all the glories of godhead—celestial origin, great antiquity, inexpressible beauty and power* [p04].

**other connectives**

The “unmarkedness” of the initial position is further confirmed by the results that concern the placement of the other connectives selected for the closer analysis (see Table 7). The connectives *as a result* and *hence* are always placed initially in both corpora.<sup>19</sup> For example:

(16) As a result, the youth is never truly gone for he is engraved in the poet’s mind as he claims that “thou not farther than my thoughts canst move” (line 11). [el07]

(17) As a result, it cannot be overturned or alleviated by any sort of specific remedy, Galenic or otherwise. [p13]

(18) Hence it is meaningless to speak of vengeance in connection with the soul’s coming to itself and asserting its rightful superiority over the body. [p27]

**Table 7:** Position of *as a result*, *hence* and *consequently*

		student corpus				article corpus				total (both corpora)			
		Σ		(%)		Σ		(%)		Σ		(%)	
<i>as a result</i>	initial	2		100.0		7		100.0		9		100.0	
<i>hence</i>		-		-		4		100.0		4		100.0	
<i>consequently</i>	medial medial	1	5	20.0	100.0	13	15	86.7	100.0	14	20	70.0	100.0
		4		80.0		2		13.3		6		30.0	
<b>total</b>		<b>7</b>		<b>100.0</b>		<b>26</b>		<b>100.0</b>		<b>33</b>		<b>100.0</b>	

In contrast to *as a result* and *hence*, the position of *consequently* is more varied – both corpora show initial and medial uses. While the article corpus has a vast majority of the instances of *consequently* in initial position, in the case of the student corpus, the results show a single occurrence only. The following sentences represent examples of the initial placement of *consequently* in the two corpora:

(19) Consequently, the Renaissance man had wide knowledge of literature and sciences. [el07]

(20) Consequently, the printed version of The Masque of Queens consists of three elements: the speeches, the descriptions of the setting, and the copious glosses. [p07]

<sup>19</sup> Note, however, that *hence* has no occurrences in the student corpus (see Section 4.2.1.1).

#### 4.2.2.2 Medial position

##### therefore

Fifty percent of uses of the connective *therefore* in the article corpus are found in medial position (see Table 6). In the student corpus, the lower percentage (34.0%) of *therefore* in medial position is due to the high preference for the sentence-initial placement. Three types of medial placement are distinguished here: initial medial, medial medial and end medial. In both corpora, the connective *therefore* occurs in initial medial and medial medial positions; the use of end medial placement is restricted to the student corpus.

The results for both – the student corpus and the article corpus show examples of medial medial *therefore* in different positions depending on the type of verb phrase that operates as the verb element of the clause. Typically, the connective occurs between a lexical verb and the subject. This is the case of examples (21) and (22), where *therefore* immediately follows the subject realized by a noun phrase and precedes the main verb of the clause.

(21) It therefore works with the idea of continuity of life as well, only „On Shakespeare“ offers another kind of immortality. [es28]

(22) But true to Barkan's word, Spenser therefore gives his first origins as a thinking presence fulfilment only through their integration into a further origin, itself to be fulfilled. [p15]

While in the previous examples, the connective precedes the verb phrase realized by the main verb only, if the verb phrase consists of the main verb and an auxiliary (or auxiliaries), the adverbial placed in medial medial position occurs between the first (or only) auxiliary (operator) and the rest of the predicate. The texts contain clauses with *therefore* placed between the operator and the main verb (ex. 23) as well as those with the connective between the operator and another auxiliary (ex. 24). The latter, however, occur solely in the texts by the expert writers.

(23) Though manipulative, Portia still represents mercy in the play, for she does not truly hold any grudge against Bassanio; her deal does not involve death if failed and is therefore juxtaposed to the cold-hearted vengefulness of Shylock's ordeal. [es16]

(24) Most of the population would therefore have spent some portion of their lives in service, and for many that condition would have been permanent. [p32]



In addition, *therefore* following an operator<sup>20</sup> is in both corpora frequently found in copular constructions, where it precedes the complement. For instance:

(25) The message is therefore similar to the one in Spenser's sonnet in the sense that where external memorization of people falls victim to the unavoidable and uncompromising passing of time, it is in art where the memory of them will be forever preserved. [es18]

(26) Corbaccio's "must" is therefore a hopeful prediction, not the "must" of causal necessity. [p04]

Apart from the medial medial position, the analysis revealed several instances of sentences with *therefore* placed in initial medial and end medial positions. Table 6 shows that instances of the initial medial position are relatively infrequent in both corpora while *therefore* in end medial position is peculiar to the students' texts.

Examples (27) and (28) illustrate the typical clause structure with the connective in initial medial position: *therefore* is placed between the subject and the operator:

(27) Jessica's betrayal therefore does not have to be perceived only as a punishment, but can be seen as an opportunity for Shylock to be reconciled and possibly also redeemed. [es26]

(28) Scitovsky's critical hypotheses therefore are not significant merely for their relevance to our modern, consumer-capitalist age [...] [p02]

The result/inference connectives in end medial position occur immediately in front of the main verb (following the operator and the other auxiliary/auxiliaries). Thus, in the next example, *therefore* follows the auxiliary *be* (preceded by the auxiliary *have* (the operator)) and precedes the past participle of the main verb *to present*:

(29) Parodied sexuality has been therefore presented in dramatic works since the origin of comedy. [el26]

### **other connectives**

It was shown in the preceding section that with the exception of *therefore*, *consequently* is the only connective under investigation whose occurrences are placed non-initially. However, while the students strongly prefer medial (80.0%) to initial placement of *consequently*, the expert writers opt for medial position only rarely (13.3%). Of all the types

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<sup>20</sup> In accordance with *CGEL* (1985), the primary verb *be* is treated here as an operator even when it functions as the main verb (in a clause with no auxiliary in the verb phrase).

of medial positions commonly chosen for *therefore*, *consequently* occurs only in medial medial position:

(30) In addition to that it is also relevant to pay attention to the choice of verbs in the heroic couplet which are what leaves the last impression with the reader and are consequently of quite the significance. [es27]

(31) The woman becomes the hunter and the speaker consequently becomes the hunted animal, or the object of the woman's seduction, which is something not very common in early modern poetry. [el12]

(32) The eye, consequently, becomes mere 'minister'. [p16]

The medial medial position, where the connective is placed between the operator and a complement is represented by a single example in the student corpus (ex. 30). The rest of the sentences in both corpora have *consequently* placed between the subject and a lexical verb (where there is no operator) (ex. 31 and ex. 32).

#### 4.2.2.3 Initial/medial position

A number of sentences with *therefore* (14.2% in the student corpus and 4.3% in the article corpus) have reduced clause structures that make it impossible to distinguish between medial and initial uses of the connective (ex. 33 and ex. 34) – the subject of the clause with the connective is absent.

(33) Spenser uses the visual help of the tide as well, only in Sonnet 75 the sea becomes one with the idea of time, and therefore impersonates the destroying force of the poem. [es33]

[... and therefore the sea impersonates (I)/and the sea therefore impersonates (M) the destroying force of the poem.]

(34) That discussion concludes when Scaliger suggests that poets differ from philosophers, historians, and the rest because while these others "represent things just as they are, . . . the poet depicts quite another sort of nature," and, therefore, is justly called by the Greeks a maker (pp. 7–8). [p09]

[... and, therefore, the poet is justly called (I)/and the poet, therefore, is justly called (IM) by the Greeks a maker (pp. 7–8).]

The brackets give the reduced clauses in their full forms with all possible types of connective placement. The paraphrase of the example (34) shows that even the possibility of initial medial position cannot be excluded in the case of some sentences. However, in order not to

further complicate the classification, all the instances of *therefore* in a position that cannot be determined uniquely are classified here as “initial/medial”.

The results show no ambiguity regarding the position of the connective in the case of *as a result, hence* and *consequently*.

#### 4.2.2.4 Final position

In contrast to the students’ essays, the texts written by the professional writers include several sentences in which *therefore* occurs in final position (8.7%). The final placement of the connective has two variants: initial final and end final. In the case of the end final position, *therefore* typically follows all the obligatory elements of the clause. For example:

(35) There is a need, therefore, to turn critical attention to mechanisms sonneteers employ to achieve interactivity with the reader and a perception of integrity, as well as to acknowledge that the use of such mechanisms betrays the presence of novelistic thinking. [p20]<sup>21</sup>

(36) Audiences were also no doubt surprised, therefore, when one of these turned out to be a certain Master George Page. [p01]

There is only one example of the initial final position found in the article corpus: the connective is placed between the main verb and the direct object (in the form of an infinitive clause):

(37) I want, therefore, to spend some time systematically mapping out Scitovsky’s theses alongside an analysis of action and motivation in Volpone, whose increasingly complex plot generates a series of increasingly complex stimuli. [p02]

Similarly to the initial/medial position, there is no instance of a finally placed connective among the other analysed connectives.

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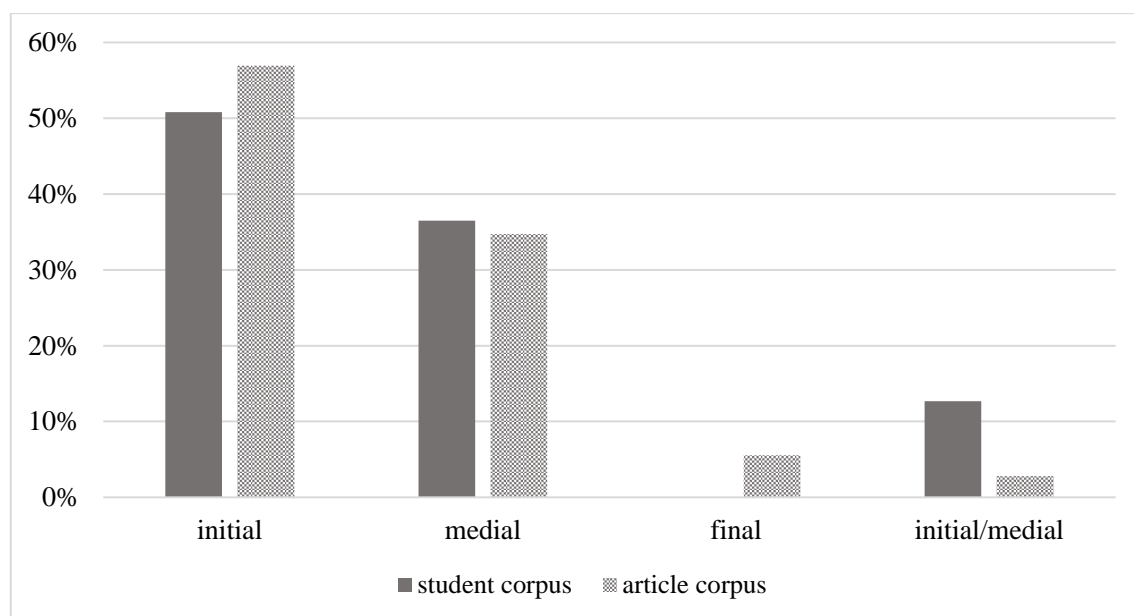
<sup>21</sup> Note, however, that rather than following all the obligatory elements, *therefore* in this example occurs within the last obligatory element of the clause (the noun phrase “a need to turn ...”) – it separates the complementation of the noun from the head noun “need”, thus making the noun phrase discontinuous. Still, the placement of the connective in this sentence is the closest to being considered an example of end final position.

#### 4.2.2.5 Position: concluding remarks

The overall results of the analysis of the position of *therefore*, *as a result*, *hence* and *consequently* (summarized in Figure 5) are consistent with the findings of other researchers in that both groups of writers – the students and the professionals, prefer initial to non-initial placement of result/inference connectives (50.8% in the student corpus and 56.9% in the article corpus). Of the non-initially placed connectives, those in medial position constitute more than a third of all the connective occurrences in both corpora. Thus, in terms of the percentage of initial and medial placement, the two corpora are remarkably similar (although the higher frequency of the initially placed connectives in the article corpus is not insignificant). The notable difference concerns the placement of the most frequent connective *therefore* which occurs predominantly in initial position in the student corpus whereas in the article corpus, it is most commonly found in medial position. In addition, the two types of texts differ with respect to the clause-final use of result/inference connectives, which is peculiar to the articles (5.6%).

It must be also noted that 12.7% of the occurrences in the student corpus and 2.8% in the article corpus are found in a position that cannot be uniquely determined (the connective is an element of a reduced clause structure).

**Figure 5:** Position of the selected connectives



### 4.2.3 Scope of the selected connectives

#### 4.2.3.1 Immediate scope

##### therefore

The scope the connective has over the neighbouring context has been proposed as one of the possible explanations of the overuse of connectives by students. In the theoretical part of this thesis (Section 2.4.1.1), we mentioned the different scopes of the connective *therefore* in the student and professional writing discussed by Shaw (2009)<sup>22</sup> but the notion of a greater length and complexity of sentences in the professional writing addressed by other researchers concerns the same issue. Here, we distinguish two types of the scope: immediate and summative.

**Table 8:** Scope of *therefore*

	student corpus		article corpus		total (both corpora)	
	$\Sigma$	(%)	$\Sigma$	(%)	$\Sigma$	(%)
immediate	34	60.7	22	47.8	56	54.9
summative	22	39.3	24	52.2	46	45.1
<b>total</b>	<b>56</b>	<b>100.0</b>	<b>46</b>	<b>100.0</b>	<b>102</b>	<b>100.0</b>

As long as the connective *therefore* is concerned, the analysis revealed that both groups of writers commonly use the connective to introduce a direct consequence of the situation described in the immediately preceding clause or sentence (immediate scope). In the students' texts, these occurrences constitute a majority (60.7%), while in the article corpus the ratio of immediate to summative scope of *therefore* is 47.8 to 52.2 percent (see Table 8).

(38) But apart from this uniting ideological aim, a closer examination proves that the sonnets are dissimilar in tone, structure, poetic means and imagery used to express the similar message, and therefore altogether affect the reader in significantly different way. [es04]

(39) However, the reclamation and education of the subject must be coupled with a response to the objects of the Bower, which are equally implicated in the perceptual act. Therefore, Guyon next directs his efforts to the Bower itself, seeking to prevent its allures from clouding the vision of other men and women. [p11]

Examples (38) and (39) represent two variants of the use of *therefore* with the immediate scope. In (ex. 38), the connective introduces a clause that expresses a direct consequence of

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<sup>22</sup> Note, however, that Shaw (2009) never uses the term "scope".

the situation described in the preceding clause(s) of the same sentence. In (ex. 39), the scope of the connective (which is typically placed sentence-initially) exceeds the boundaries of the sentence by expressing a direct consequence of the situation described in the previous sentence. It is worth noticing that in both examples (as well as in many others in both corpora), the first clause or sentence introduces a new (and contrasting) view to the continuing discussion and as such it is linked to the preceding discourse by the conjunction *but* or *however*. The clause introduced by *therefore* then expresses a result of the newly presented argument.

### **other connectives**

The occurrences of *as a result* and *consequently* found in the student corpus are all used only with the immediate scope (see Table 9), i.e. to connect two clauses or sentences on condition that the second is a direct consequence of the first:

(40) This can be deduced from lines 7 and 8 in which the eye is invited to partake in the heart’s “thoughts of love” (line 8) whenever the youth goes away. As a result, the youth is never truly gone for he is engraved in the poet’s mind as he claims that “thou not farther than my thoughts canst move” (line 11). [el07]

(41) Suddenly, the appearance of a diseased person is redundant for Volpone, thus he disposes the mask which consequently proves fatal. [el13]

**Table 9:** Scope of *as a result*, *hence* and *consequently*

		student corpus				article corpus				total (both corpora)			
		Σ		(%)		Σ		(%)		Σ		(%)	
<i>as a result</i>	immediate	2	2	100.0	100.0	2	7	28.6	100.0	4	9	44.4	100.0
	summative	-		-		5		71.4		5		55.6	
<i>hence</i>	immediate	-		-		3	4	75.0	100.0	3	4	75.0	100.0
	summative	-		-		1		25.0		1		25.0	
<i>consequently</i>	immediate	5	5	100.0	100.0	8	15	53.3	100.0	13	20	65.0	100.0
	summative	-		-		7		46.7		7		35.0	
<b>total</b>		<b>7</b>		<b>100.0</b>		<b>26</b>		<b>100.0</b>		<b>33</b>		<b>100.0</b>	

Similarly, the results show a frequent use of the connectives to express a direct result/inference relationship by the professional writers. Both the connectives, *hence* and *consequently* have a majority of occurrences used with the immediate scope (75.0% and 53.3%, respectively). *As a result* is thus the only connective whose “immediate” occurrences in the article corpus do not predominate (28.6%). The examples of these connectives with immediate scope are:

(42) His melancholy cannot be traced back to any imbalance, excess, or lack of bodily substances, nor is it referred to in such a way. As a result, it cannot be overturned or alleviated by any sort of specific remedy, Galenic or otherwise. [p13]

(43) The servant will pine anyhow, but no need for the master to starve with it; hence the soul must cease futile efforts to preserve the body ("let that pine", with "let" meaning "allow" rather than having a jussive force) and turn the inevitable to its own advantage ("aggrauat thy store"). [p27]

(44) Nancy, concerned with the apparent failure of the left in the second half of the twentieth century, imagines this ecstatic and always non-present community as a possible alternative to totalitarianism or technocratic liberal capitalism. Consequently his account might not seem obviously relevant to the political and economic situation of Jonson's theater. [p13]

#### 4.2.3.2 Summative scope

##### therefore

The connective with a summative scope is used to express a less direct result/inference relationship between at least three sentences and serves a more summative function.<sup>23</sup> *Therefore* serving the summative function occurs in both corpora, but much more frequently in the professional writing, where the occurrences slightly exceed those with the immediate scope (52.2% vs. 47.8%). In the student corpus, it is approximately 40% of all the occurrences of the connective.

(45) Launcelot is clearly not a random amusing character. He is in contrast with other characters from the first group. He is influential; he has knowledge of both the Jewish and Christian world so no one can dismiss him easily. Also, he and Jessica are the only two people who can objectively talk about both Shylock in the ghetto as well as in the Christian world outside. He is therefore an inseparable part of the play and a great amount of focus should be given to Launcelot when analyzing the play. [es25]

(46) Seneca's comments suggest why Corbaccio is wrong when he exclaims that Volpone "must pronounce me his." Volpone's scam relies upon gift-giving's big loophole: the giving of gifts seems to necessitate a response, but there is apparently no way to compel that response to occur. As Seneca points out, only the highmindedness of the parties involved, and their concern for what

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<sup>23</sup> Note that in addition to the resultive function, Quirk et al. (1985: 637) ascribe the connectives *thus*, *therefore* and *then* a summative function. The connective that has the summative function is used to "introduce an item that embraces the preceding ones."

others think of them, sustain the gift-giving system: and both qualities are in short supply in Jonson's Venice. Corbaccio's "must" is therefore a hopeful prediction, not the "must" of causal necessity. [p04]

Examples (45) and (46) indicate considerable similarities in the use of *therefore* with the summative scope between the student corpus and the article corpus. Both have a more or less clearly defined structure: 1) the first sentence serves to introduce a claim, the author's view or comment 2) in the following sentence(s), the claim is elaborated and justified by the argument(s) that the author presents in its support 3) the final sentence returns to the initial claim and confirms its accuracy by summing up the argument(s).

Still, the two examples differ in that in the professional writing, a single argument is gradually developed with a clear progression towards the final sentence. Moreover, the sentences are structurally more complex and the individual clauses perfectly tied to form a united whole. In contrast, the student's text seems to consist of disconnected sentences (and clauses), each proposing a different argument. The clause with *therefore* then serves as a linking element by means of which the arguments are united.

### **other connectives**

The summative function of the other selected connectives is represented solely in the article corpus. Of all the analysed connectives, including *therefore*, the connective *as a result* has the greatest percentage of occurrences (71.4%) with the summative scope. While the summative use of the connective *consequently* is also very common (46.7%), *hence* applies to more than two sentences in one instance only (25.0%). The following examples illustrate the summative use of *as a result*, *hence* and *consequently* in the article corpus:

(47) Volpone seems to want it both ways. He wants to "worship" gold, because it is what he most loves, and therefore he attributes to it almost all the glories of godhead—celestial origin, great antiquity, inexpressible beauty and power. He addresses it in the second person, as "thou." At the same time gold in his account remains strangely inert: "the dumb god / That canst do naught." Like other gods it is discernible not directly but only through its effects; unlike other gods, it is merely a prime mover, not itself a locus of consciousness or agency. As a result, in the opening speech Volpone's treasure seems both "too alive" and "too dead." [p04]

(48) There is no notion of revenge in the sestet. Neither the poet nor the soul addressed is under any illusion as to who is responsible for the soul's plight: it is the soul. Hence it is meaningless to speak of vengeance in connection with the soul's coming to itself and asserting its rightful superiority over the body. [p27]



(49) It is impossible not to notice that Chaucer’s attitude to fame is ambivalent and at points openly critical. He personifies Fame as a deity whose favors most people desire, but who is fickle, unpredictable, and often unjust. The groups of supplicants who come before her throne are treated with an astounding arbitrariness: they receive good renown, oblivion, or bad reputation regardless of what they deserve (ll. 1520–1867). Why certain people are treated better than others seems to depend chiefly on Fame’s whim: [...]

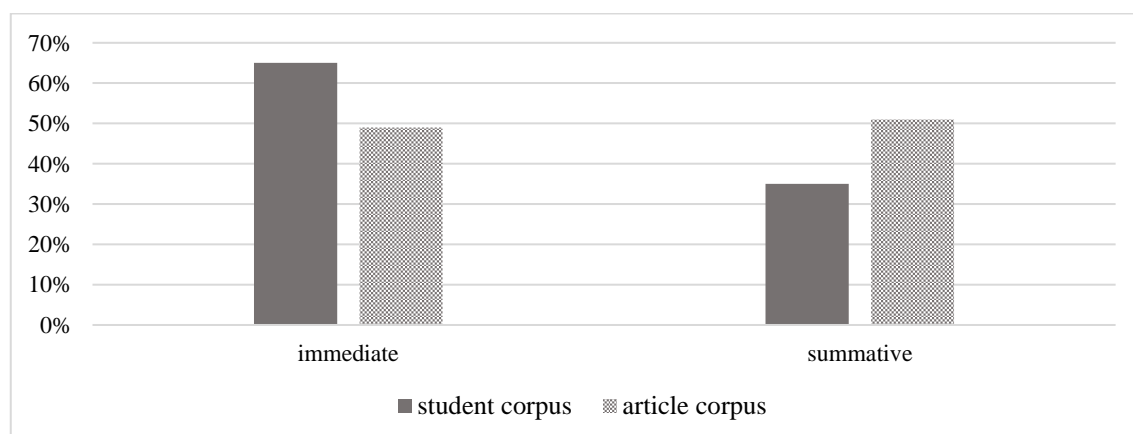
Consequently, Fame emerges as a very capricious and unreliable deity, a true sister of “dame Fortune” (l. 1547). [p07]

#### 4.2.3.3 Scope: concluding remarks

The overall numbers provide further information about the use of result/inference connectives by students and professionals. Figure 6 shows that in 65.1% of the analysed occurrences, the students use result/inference connectives to introduce a clause expressing a direct consequence of the preceding clause(s)/sentence. Only 34.9% of the connectives used by the students thus serve to introduce a clause that sums up the argument(s) presented in the previous sentences and confirms the claim that the argument(s) are meant to support.

The article corpus significantly differs from the student corpus in that the professional writers tend to use the connectives that have either the immediate or the summative scope with a more or less similar frequency. In fact, the professionals use result/inference connectives with the summative scope (51.4%) slightly more often than those with the immediate scope (48.6%). Moreover, the two groups of writers differ with respect to the range of the connectives they use with the summative scope. While the expert writers use all the selected connectives, i.e. *therefore*, *as a result*, *hence* and *consequently* with the summative scope, the only connective that has the summative scope in the student writing is *therefore*.

**Figure 6:** Scope of the selected connectives



#### 4.2.4 Position of the selected connectives with respect to the scope

In order to gain an even better insight into the use of result/inference connectives by the two groups of writers, the data presented in the last two sections (4.2.2 and 4.2.3) were subjected to further analysis by studying the level of dependency of the connectives' position on the scope. The findings should reveal whether the writers' choice of the connectives' placement is in any way affected by their intentions regarding the scope of the connective.

Tables 10 and 11 show the ratio of immediate scope to summative scope for each of the connectives' positions used in the student corpus and the article corpus, respectively<sup>24</sup>. The numbers include the occurrences of all the closely studied connectives, i.e. *therefore*, *as a result*, *hence* and *consequently*; they are referred to generally as result/inference connectives. The highlighted lines mark any deviation from an even distribution of the connectives' scopes that deserves attention (i.e. the proportion of the connectives with either of the scopes in the given position is more than 10% higher than that of the connectives with the other type of scope; in terms of the raw frequency counts, the difference between the two scopes constitutes at least 3 connective occurrences).

**Table 10:** Position of the selected connectives with respect to the scope: student corpus

		immediate scope		summative scope		total	
		$\Sigma$	(%)	$\Sigma$	(%)	$\Sigma$	(%)
initial		19	59.4	13	40.6	32	100.0
medial	initial medial	1	50.0	1	50.0	2	100.0
	medial medial	14	77.8	4	22.2	18	100.0
	end medial	0	0.0	3	100.0	3	100.0

**Table 11:** Position of the selected connectives with respect to the scope: article corpus

		immediate scope		summative scope		total	
		$\Sigma$	(%)	$\Sigma$	(%)	$\Sigma$	(%)
initial		20	48.8	21	51.2	41	100.0
medial	initial medial	-	0.0	4	100.0	4	100.0
	medial medial	10	47.6	11	52.4	21	100.0
final	initial final	1	100.0	-	0.0	1	100.0
	end final	2	66.7	1	33.3	3	100.0

<sup>24</sup> The occurrences of the connectives whose position is not uniquely determinable (the initial/medial position in the preceding sections) are not included here for having no value in this particular part of analysis.

### **student corpus**

In spite of the more varied repertoire of positions used by the professional writers, the results are more revealing in the case of the student corpus. The result/inference connectives in both initial and medial medial positions are significantly more frequently used to express a direct consequence of the immediately preceding clause(s)/sentence than to summarize the preceding sentence(s). More precisely, as many as 77.8 % of the medial medially placed connectives in the essays have the immediate scope while only 22.2% of them have the summative scope. As regards the initially-placed connectives, the ratio is 59.4 to 40.6 per cent for the immediate scope and the summative scope, respectively.

On the contrary, the result/inference connectives in end medial position are used by the students solely with the summative scope, although it has to be noted that the number of connective occurrences in end medial position is limited (3 occurrences only) and thus does not allow a broader generalization.

### **article corpus**

For the professional writers, the scope seems to bear less relevance to the choice of position for result/inference connectives: the percentage of the connectives with the immediate scope is mostly roughly similar to that of the connectives that have the summative scope<sup>25</sup>. The exception is the initial medial position that is occupied solely by the connectives with the summative scope.

Consequently, the results imply that compared to the professionals, the students' deciding on the position of result/inference connectives is more affected by the connectives' function (scope) in that they either consciously or unconsciously prefer certain types of connective placement depending on the intended scope of the result/inference connective they use.

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<sup>25</sup> In fact, the result/inference connectives in initial final and end final positions have markedly higher percentages of the immediate uses. However, the total number of connectives found in final positions is low and the difference between the number of connectives with the summative scope and those with the immediate scope concerns a single occurrence only for each position. The results should be therefore seen as potentially coincidental.

## 5 Conclusion

The present diploma thesis explored the differences in the use of result/inference connectives between non-native student and native expert writing in the field of literary studies. The analysis was divided into several parts in compliance with the main aims of the thesis; the quantitative analysis comprised the comparison of the overall number of result/inference connectives and the number of individual connectives' occurrences in the two types of writing while the qualitative analysis compared the position and scope of the connectives used by students and professionals. The thesis showed that some of the adverbial forms that perform the function of result/inference connectives are commonly used in the text in a variety of other functions. To ensure that the results concern only the resultive uses of the adverbials, the qualitative analysis was restricted to the adverbials that are used exclusively as result/inference connectives (*therefore, as a result, hence* and *consequently*). The initial hypothesis based on the findings reported by other researchers was that students would overuse result/inference connectives in their writing and that they would mostly place them in the clause-initial position. With respect to the connectives' scope, it was expected that students would make more immediate connections between the clauses/sentences linked by the connective than expert writers do, although this particular part of the hypothesis was not so firmly established due to the fact that the connectives' scope is not among the aspects that researchers commonly focus on in their investigation of the connective usage.

The results of the quantitative analysis confirmed the expectations concerning the difference in the total number of result/inference connectives between the two types of writing with the frequency of connectives in the students' essays more than 3 times or approximately 1.6 times (the rate per 10,000 words and 100 sentences respectively) higher than in the articles written by the professional writers. In relation to these results, the thesis confirmed the utility of including both the word-based and the sentence-based analyses in the description of the connectives' frequency, as proposed by Chen (2006). The thesis also examined a potential overuse and underuse of the individual result/inference connectives in the student corpus and found that as opposed to professionals, students substantially overuse *therefore* and their writing features excessive use of *so* and *consequently*, too. On the other hand, it was discovered that contrary to expert writers, students do not commonly use the connectives *as a consequence, in consequence* and *accordingly* to express resultive relations.

In order to gain a more thorough understanding of the extent to which the two groups of writers rely on the individual result/inference connectives in their texts, the thesis analysed

the individual connectives' distribution and found that in this particular respect, students do not differ from expert writers. The analysis showed that the connective *therefore* which is used by students and professionals most frequently of the closely examined connectives is by no means preferred by all the writers; in fact, it was discovered that only approximately one third of the writers (students and professionals alike) used *therefore* repeatedly, i.e. at least twice. It was also found that the other examined connectives are used by both groups of writers rather marginally. The results indicate that students mostly use the connectives *as a result* and *consequently* to avoid the recurrent use of the more common result/inference connectives.

While the quantitative analysis revealed substantial differences in the result/inference connective use between students and professionals (except for the results concerning the connectives' distribution), the first part of the qualitative analysis showed that in terms of the overall connectives' placement, the student and the expert writing are to a large extent similar. The original hypothesis predicting that students would prefer initial to non-initial placement was confirmed for both groups of writers and it was also found that both students and professionals commonly place result/inference connectives in medial position. The only difference between the writers with regard to the overall connective placement is then the absence of finally placed connectives in the student writing.

In addition, a few more differences between the student and the expert writing were discovered in the placement of the individual connectives. Specifically, the connective *therefore* was found to predominantly occupy the initial position merely in the student writing – the professional writers more frequently opt for the medial placement of the connective. On the contrary, in the expert writing *consequently* most commonly occurs in initial position while the students prefer *consequently* placed medially. It was also found that *as a result* and *hence* always occur in initial position in both types of writing.

The other part of the qualitative analysis compared the two types of writing regarding the scope the individual occurrences of result/inference connectives have over the preceding discourse. The thesis revealed that while students mostly use result/inference connectives to mark immediate connections between two clauses or sentences (“immediate” scope), a majority of connectives in the expert writing were used with what has been called a “summative” scope – in addition to expressing the (less direct) result/inference relationship, the connective serves to sum up the preceding discourse that typically exceeds the boundary

of two sentences. While professional writers use all the closely examined connectives (*therefore, as a result, hence* and *consequently*) with either immediate or summative scope, the only result/inference connective whose occurrences showed both types of scope in the student writing was *therefore*. The other connectives were used by the students merely with immediate scope.

As long as the summative scope is concerned, another important feature of the student writing was noted that distinguishes it from the professional writing. It was found that although both groups of writers use the connectives to build claims that are similar in structure, the claims produced by professional writers usually elaborate a single argument while those produced by students are more commonly composed of several (unrelated) arguments that are not further developed. Finally, the thesis considered a possible relation between the connectives' placement and their scope, revealing that in contrast to professionals, students tend to place the connectives in different positions depending on the role (immediate vs. summative) the connectives serve in the text. Thus, the initial and medial medial positions are typically occupied by a connective with immediate scope while the connectives placed in end medial position always have a summative function.

The very nature of the research in the present thesis opens up a good opportunity for future research not necessarily limited to the investigation of connective usage. The student and the article corpora compiled for the purpose of the analysis in this thesis represent a valuable source of textual material ready to be used in any type of research. Each of the corpora can be used separately to analyse features of language characteristic of the given group of writers or the two corpora can be contrasted, as it was the case with this thesis, thus providing the researcher with a chance of analysing two sets of texts that are both generically and thematically comparable (which is not commonly the case with freely-available corpora).

Moreover, since the results of the analysis in this thesis indicate a considerable gap in terms of the result/inference connective use between BA non-native students and native expert writers, it is suggested that a similar research be conducted that would analyse the students' use of result/inference connectives at the higher levels of study with the aim of assessing whether students achieve a more native-like style of writing concerning the use of result/inference connectives as their study progresses.

## 6 References and sources

### References

- Altenberg, B. & Tapper, M.** (1998). The use of adverbial connectors in advanced Swedish learners' written English. *Learner English on Computer*. S. Granger (Ed.). Harlow: Addison Wesley Longman Limited, 80-93.
- Barton, D.** (1994). *Literacy: An Introduction to the Ecology of Written Language*. Oxford: Blackwell.
- Biber, D.** et al. (1999). *Longman grammar of spoken and written English*. Harlow: Longman.
- Bolton, K.** et al. (2002). A Corpus-Based Study of Connectors in Student Writing: Research from The International Corpus of English in Hong Kong (IGE-HK). *International Journal of Corpus Linguistics*, 7(2), 165-182.
- Chen, C. W. Y.** (2006). The use of conjunctive adverbials in the academic papers of advanced Taiwanese EFL learners. *International Journal of Corpus Linguistics*, 11(1), 113-130.
- Clyne, M.** (1987). Cultural differences in the organisation of academic texts. *Journal of Pragmatics*, 11, 211– 47.
- Crewe, W.** (1990). The Illogic of Logical Connectives. *ELT Journal*, 44 (4), 316-325.
- Crismore, A.** et al. (1993). Metadiscourse in persuasive writing: a study of texts written by American and Finnish University Students. *Written Communication*, 10(1), 39-71.
- Granger, S.** (1993). The International Corpus of Learner English. *English Language Corpora: Design, Analysis and Exploitation*. J. Aarts, P. De Haan and N. Oostdijk (Eds.). Amsterdam & Atlanta: Rodopi, 57-71.
- Granger, S., & Tyson, S.** (1996). Connector usage in the English essay writing of native and non-native EFL speakers of English. *World Englishes*, 15, 17–27.
- Hyland, K.** (2000). *Disciplinary discourses: Social interactions in academic writing*. Harlow: Longman.
- Hyland, K., & Tse, P.** (2004). Metadiscourse in academic writing: A reappraisal. *Applied Linguistics*, 25, 156–177.
- Hyland, K.** (2009). *Academic Discourse*. London: Continuum International Publishing.
- Milton, J. & Tsang, E. S. G.** (1993). A corpus-based study of logical connectors in EFL students' writing: Directions for future research. *Lexis in Studies*. R. Perbertom & E. S. G. Tsang (Eds.). Hong Kong: Hong Kong University Press, 215-246.

**Quirk, R.** et al. (1985). *A Comprehensive Grammar of the English Language*. London: Longman.

**Shaw, P.** (2009). Linking adverbials in student and professional writing in literary studies: What makes writing mature. *Academic Writing. At the Interface of Corpus and Discourse*. Charles, M. et al. (Eds.). London: Continuum, 215-235.

**Swales, J.** (1990). *Genre Analysis: English in Academic and Research Settings*. Cambridge: Cambridge University Press.

**Thompson, G.** (2001). Interaction in academic writing: Learning to argue with the reader. *Applied Linguistics*, 22 (1), 58-78.

## **Sources**

### **English Literary Renaissance**

**Collington, P. D.** (2000). "I Would Thy Husband Were Dead": The Merry Wives of Windsor as Mock Domestic Tragedy. *English Literary Renaissance*, 30(2), 184–212.

**Hennessey, O.** (2008). Jonson's Joyless Economy: Theorizing Motivation and Pleasure in 'Volpone'. *English Literary Renaissance*, 38(1), 83-105.

**Kearney, J.** (2002). Enshrining Idolatry in 'The Faerie Queene'. *English Literary Renaissance*, 32(1), 3-30.

**Maus, K. E.** (2005). Idol and Gift in 'Volpone'. *English Literary Renaissance*, 35(3), 429-453.

**Miller, J. E.** (1997). 'And All This Passion for a Boy?': Cross-dressing and the Sexual Economy of Beaumont and Fletcher's 'Philaster'. *English Literary Renaissance*, 27(1), 129-150.

**Scott, W. O.** (2004). Conditional Bonds, Forfeitures, and Vows in The Merchant of Venice. *English Literary Renaissance*, 34(3), 286–305.

**Smialkowska, M.** (2002). 'Out of the authority of ancient and late writers': Ben Jonson's Use of Textual Sources in 'The Masque of Queens'. *English Literary Renaissance*, 32(2), 268-286.

**Sohmer, S.** (2005). Shakespeare's Time-Riddles in Romeo and Juliet Solved. *English Literary Renaissance*, 35(3), 407–428.

**Stillman, R. E.** (2002). The Scope of Sidney's 'Defence of Poesy': The New Hermeneutic and Early Modern Poetics. *English Literary Renaissance*, 32(3), 355-385.



**Tartamella, S. M.** (2013). Reinventing the Poet and Dark Lady: Theatricality and Artistic Control in Shakespeare's *The Taming of the Shrew*. *English Literary Renaissance*, 43(3), 446–477.

**Zajac, P. J.** (2013). Reading through the Fog: Perception, the Passions, and Poetry in Spenser's *Bower of Bliss*. *English Literary Renaissance*, 43(2), 211–238.

### **Renaissance Studies**

**Badcoe, T.** (2011). 'The compasse of that Islands space': Insular fictions in the writing of Edmund Spenser. *Renaissance Studies*, 25(3), 415–432.

**Bernard, J. F.** (2014). The Merchant of Venice and Shakespeare's sense of humour(s). *Renaissance Studies*, 28(5), 643–658.

**Clarke, D.** (2014). Renaissance eloquence and female exemplarity: Coriolanus and the matrona docta. *Renaissance Studies*, 28(1), 128–146.

**Harmer, J.** (2008). Spenser's 'goodly thought': Heroides 15 and *The Teares of the Muses*. *Renaissance Studies*, 22(3), 324–337.

**Kambasković-Sawers, D.** (2007). 'Never was I the golden cloud': Ovidian myth, ambiguous speaker and the narrative in the sonnet sequences by Petrarch, Sidney and Spenser. *Renaissance Studies*, 21(5), 637–661.

**Langley, E. F.** (2006). Anatomizing the early-modern eye: a literary case-study. *Renaissance Studies*, 20(3), 340–355.

**Lyne, R.** (2008). Intertextuality and the female voice after the Heroides. *Renaissance Studies*, 22(3), 307–323.

**Marquis, P. A.** (1994). Rereading Sidney's *Certain Sonnets*. *Renaissance Studies*, 8(1), 65–75.

**Reeves, E.** (1993). John Donne and the oblique course. *Renaissance Studies*, 7(2), 168–183.

**Shin, H.** (2011). Fatherly violence, motherly absence, servants' resistance in Shakespeare and his time. *Renaissance Studies*, 25(5), 666–683.

**Wiseman, R.** (2014). A Poetics of the natural: sensation, decorum, and bodily appeal in Puttenham's *Art of English Poesy*. *Renaissance Studies*, 28(1), 33–49.

### **Shakespeare Quarterly**

**Bailey, A.** (2011). Shylock and the Slaves: Owing and Owning in *The Merchant of Venice*. *Shakespeare Quarterly*, 62(1), 1–24.

- Berger, H.** (1981). Marriage and Mercifixion in *The Merchant of Venice*: The Casket Scene Revisited. *Shakespeare Quarterly*, 32(2), 155-162.
- Breitenberg, M.** (1992). The Anatomy of Masculine Desire in "Love's Labor's Lost". *Shakespeare Quarterly*, 43(4), 430-449.
- Daniel, D.** (2010). "Let me have judgment, and the Jew his will": Melancholy Epistemology and Masochistic Fantasy in *The Merchant of Venice*. *Shakespeare Quarterly*, 61(2), 206-234.
- Huttar, Ch. A.** (1968). The Christian Basis of Shakespeare's Sonnet 146. *Shakespeare Quarterly*, 19(4), 355-365.
- Korda, N.** (2009). Dame Usury: Gender, Credit, and (Ac)counting in the Sonnets and "The Merchant of Venice". *Shakespeare Quarterly*, 60(2), 129-153.
- Neill, M.** (1989). Unproper Beds: Race, Adultery, and the Hideous in *Othello*. *Shakespeare Quarterly*, 40(4), 383-412.
- Newman, K.** (1987). Portia's Ring: Unruly Women and Structures of Exchange in *The Merchant of Venice*. *Shakespeare Quarterly*, 38(1), 19-33.
- Payne, M.** (1973). Erotic Irony and Polarity in *Antony and Cleopatra*. *Shakespeare Quarterly*, 24(3), 265-279.
- Schalkwyk, D.** (2005). Love and Service in "Twelfth Night" and the Sonnets. *Shakespeare Quarterly*, 56(1), 76-100.
- Tyson, B. F.** (1978). Ben Jonson's *Black Comedy*: A Connection between *Othello* and *Volpone*. *Shakespeare Quarterly*, 29(1) 60-66.
- Vinter, M.** (2014). "This is called mortifying of a fox": *Volpone* and How To Get Rich Quick by Dying Slowly. *Shakespeare Quarterly*, 65(2), 140-163.

## 7 Resumé

Tato diplomová práce porovnává užívání diskurzních konektorů v esejích vysokoškolských studentů a v profesionálním odborném textu v oblasti literárních věd. Konkrétně se zaměřuje na jednu ze sémantických tříd příslovečných určení, jejichž funkcí je explicitně vyjadřovat vztahy mezi částmi textu („linking adverbials“ v Biber a kol., 1999), zde označovanou jako rezultativní konektory. Práce popisuje frekvenci rezultativních konektorů, jejich postavení ve větě a dosah v textu.

Diplomová práce se dělí na část teoretickou a analytickou, přičemž teoretická část je rozdělena na čtyři hlavní kapitoly. První kapitola má za cíl popsat roli diskurzu v akademickém prostředí. Navazuje na ni kapitola druhá, která se zaměřuje na metadiskurzní jazykové prostředky, jimiž autor v textu nepřímou komunikuje s potenciálními čtenáři. Obě kapitoly přitom vychází především z popisu Hylanda (2000, 2009) a Hylanda a Tse (2004). Třetí kapitola se věnuje příslovečným určením s funkcí vyjadřovat vztahy mezi částmi textu obecně (tzn. konektory) s větším důrazem na třídu rezultativních konektorů a jejich užití v odborném stylu, jak jsou popsány v Longman Grammar of Spoken and Written English (Biber a kol., 1999). Poslední kapitola teoretické části shrnuje dosavadní poznatky z oblasti zkoumání diskurzních konektorů (především Granger a Tyson (1996), Bolton a kol. (2002), Chen (2006) a Shaw (2009)), na jejichž základě byly formulovány hypotézy pro analytickou část této práce.

Schopnost porozumět akademickému diskurzu představuje klíčovou podmínku pro přístup k vědění jakéhokoli vědního oboru. Pouze pasivní znalost však úspěch v akademickém prostředí nezajistí. Jazyk je ve své písemné podobě chápán jako prostředek k celé škále společenských aktivit od výuky studentů po předávání vědomostí dalším členům diskurzní komunity. K dosažení profesních či studijních úspěchů je tak nezbytné osvojit si způsoby komunikace té komunity, které je člověk členem. Každý člověk je členem různých společenských skupin a v každé z nich na sebe přejímá určitou roli. Jak v té roli obstojí, přitom závisí na tom, do jaké míry je vnímán jako člen dané komunity ostatními členy, tedy do jaké míry užívá diskurzu, který je dané komunitě vlastní. Každá diskurzní komunita si s užíváním diskurzu spojuje jiná pravidla a jiné konvence, na jejichž základě lze pak od sebe členy různých seskupení rozeznat. Ať se již jedná o takové konvence jako jasné vyjadřování souvislostí či důraz na soudržnost a srozumitelnost textu, od studentů i akademiků se očekává, že budou vytvářet texty, které splňují požadavky jejich diskurzní komunity.

Pohled na vytváření textu jako na společenskou aktivitu je i základní myšlenkou stojící za pojmem metadiskurz, který chápe text jakožto výsledek vzájemné komunikace mezi autorem a potenciálními čtenáři. Odkazuje tak k množství formálně různorodých jazykových prostředků, které autor využívá k výstavbě textu a předání svého sdělení čtenářům. Zatímco v tradičním pojetí (např. Hyland (2000)) je metadiskurz rozdělován na textový (prostředky sloužící k organizaci textu) a interpersonální (prostředky, které umožňují vyjádřit postoj autora k sdělení samotnému), tato práce se přiklání k novému modelu metadiskurzu (Hyland a Tse (2004)), podle kterého lze celý metadiskurz vnímat jako interpersonální, jelikož hlavním záměrem v užití prostředků sloužících k organizaci textu je usnadnit čtenáři orientovat se v textu tak, jak zamýšlel autor. Tyto jazykové prostředky jsou označovány jako interaktivní, zatímco prostředky sloužící k vyjádření autorova postoje k jeho vlastnímu sdělení nebo k čtenářům samotným jsou v novém modelu metadiskurzu označovány jako interakční.

Rezultativní konektory spadají do podkategorie interaktivního metadiskurzu v angličtině označované jako „transitions“. Ze syntaktického hlediska tvoří konektory jednu ze tříd příslovečných určení, jejichž funkcí je explicitně vyjadřovat vztahy mezi jednotlivými částmi textu („linking adverbials“ v terminologii Biber a kol., 1999). Konkrétně rezultativní konektory pak označují, že část textu následující za konektorem uvádí skutečný či logický následek (důsledek) sdělení, které svým umístěním v textu konektoru předchází. Patří mezi ně taková příslovečná určení jako například *therefore*, *thus*, *consequently*, *as a result* a *in consequence*.

Na rozdíl od jiných funkčních stylů (např. publicistický styl, konverzace) se v odborném stylu příslovečná určení s funkcí vyjadřovat vztahy mezi částmi textu vyskytují poměrně často. Převážnou většinu z nich tvoří jednoslovná příslovce. Z rezultativních konektorů se nejčastěji používá *thus* a dále *therefore*, *then*, *so* a *hence*. Mezi běžně užívané rezultativní konektory ve formě předložkových frází se pak řadí například *as a result* a *in consequence*. Je ovšem důležité brát v potaz, že volba konektoru pro konkrétní užití v textu se do jisté míry odvíjí i od preferencí jednotlivých autorů. Tedy například *hence* nepatří mezi rezultativní konektory s největším počtem výskytů, ale autoři, kteří se rozhodnou pro jeho použití, jej pak zpravidla volí opakovaně. Rovněž je doloženo, že autoři obvykle preferují jeden z konektorů z dvojice *therefore* a *thus*, přičemž ten druhý užívají s výrazně menší četností.

Pro rezultativní konektory je v odborném stylu typické postavení na počátku věty. *Therefore* a *thus* se také běžně nacházejí uprostřed věty, kde se jejich umístění může dále

lišit zejména v závislosti na struktuře predikátu. Nejčastěji však zaujímají místo hned za podmětem.

Frekvence a postavení konektorů v textu představují hlavní oblasti zájmu téměř všech autorů studií na téma diskurzních konektorů v odborném stylu. Hlavním cílem jejich výzkumu je přitom zjistit, zdali v porovnání s profesionálními autory studenti konektory nadužívají, nebo jich naopak užívají nedostatečně. Ačkoli výsledky ukazují spíše na nadměrný výskyt konektorů v pracích studentů (např. Bolton a kol. (2002), Shaw (2009)), nelze na jejich základě s jistotou tvrdit, že studenti konektory nadužívají. Například Chen (2006) ve své studii poukazuje na to, že se výsledky udávající frekvence konektorů v textu liší v závislosti na zvoleném přístupu k jejich výpočtu – nadužívání konektorů bylo prokázáno, pouze když se porovnávaly relativní počty konektorů na daný počet slov v pracích studentů a v odborných publikacích. Pokud se jednalo o poměr výskytů konektorů k počtu vět, studentské práce obsahovaly konektorů méně. Další autoři (např. Granger a Tyson (1996)) doporučují spíše než na celkovou frekvenci hledět na frekvence jednotlivých konektorů. Z rezultativních konektorů bývá často nadužíváno *therefore*, ale výsledky různých studií se v této oblasti příliš neshodují.

Výsledky také ukazují, že jak studenti, tak profesionální autoři si obvykle vybírají jen z omezeného množství konektorů, které však používají opakovaně. Konektory, které jsou běžně používané studenty se pak do velké míry shodují s nejčastějšími konektory u profesionálních autorů (Chen (2006), Shaw (2009)). V otázce postavení konektorů se autoři poměrně shodují v tom, že studenti i profesionální autoři dávají přednost počáteční pozici ve větě (Granger a Tyson (1996), Shaw (2009)), nicméně v dalších ohledech, jako je například postavení konkrétních konektorů, se jejich výsledky často liší.

Většina dříve jmenovaných autorů (Granger a Tyson (1996), Chen (2006), Shaw (2009)) si všímá i případného chybného užívání konektorů studenty. To se odehrává nejčastěji v rovině stylistické – studenti nerozlišují mezi různými stupni formálnosti konektorů. Dalším případem je použití konektoru k vyjádření vztahu mezi částmi textu bez jakékoli logické spojitosti (např. *therefore*) či dříve zmíněný nadměrný výskyt konektorů, jenž může mít za následek roztříštěnost textu.

Nakonec je zde ještě potřeba uvést, že někteří autoři (např. Granger a Tyson (1996), Shaw (2009)) zdůrazňují, že předpokladem pro dosažení smysluplných výsledků je použití žánrově jednotného korpusu studentských prací a k němu srovnatelného referenčního

korpusu. Všechny metodologické poznatky z předchozích výzkumů byly zohledněny při sestavování korpusů pro použití v analytické části této diplomové práce.

Pro účely analýzy byly vytvořeny dva korpusy – korpus studentských prací sestávající z esejí vysokoškolských studentů a korpus referenční reprezentující profesionální odborný text. Zatímco autory profesionálního textu jsou rodilí mluvčí angličtiny přispívající články do britských odborných časopisů, eseje poskytli čeští studenti druhého ročníku bakalářského studia Univerzity Karlovy oboru Anglistika-amerikanistika, v jehož rámci výuka zpravidla probíhá v angličtině. Celkem bylo použito 43 esejí (33 krátkých a 10 dlouhých) od 34 studentů a 34 článků (každý od jiného autora) získaných ze tří elektronicky dostupných odborných časopisů. Pro práci s korpusy byl zvolen konkordační program AntConc.

Analýza je rozdělena na dvě hlavní části. Zatímco v první části jsou korpusy srovnávány z hlediska frekvence všech rezultativních konektorů, druhá část blíže zkoumá užití těch konektorů, které se objevují pouze v rezultativní roli, a to v obou korpusech – *therefore, as a result, hence a consequently*. Zbylé konektory se buď nevyskytují v obou korpusech (*as a consequence a in consequence*), nebo se v textu objevují i v jiných funkcích (*so, then, thus a accordingly*). Všechna další užití těchto příslovečných určení jsou popsána a doložena příklady v první části analýzy. U konektorů blíže zkoumaných v druhé části analýzy práce porovnává jejich rozšíření, postavení a dosah. Do analýzy byla zahrnuta jen taková užití, v kterých konektor spojuje věty či souvětí.

Výsledky kvantitativní analýzy ukázaly, že studenti v esejích rezultativní konektory skutečně výrazně nadužívají. Při přepočtu výsledků na počet konektorů na 100 vět byl rozdíl v celkové frekvenci konektorů mezi korpusy menší, než když výsledky vycházely z počtu konektorů na 10.000 slov, avšak hlavní závěry týkající se nadměrného užívání rezultativních konektorů studenty zpochybněny nebyly. Stejně tak bylo dokázáno, že studenti znatelně nadužívají konektoru *therefore* a častěji než profesionální autoři volí i *so a consequently*. Na rozdíl od nich studenti rezultativní vztahy mezi větami nevyjadřují pomocí konektorů *as a consequence, in consequence a accordingly*. Při zkoumání rozšíření vybraných konektorů mezi jednotlivé texty bylo navíc zjištěno, že *therefore* není stejně oblíbené u všech autorů. Přibližně jen jedna třetina studentů a jedna třetina profesionálních autorů použila *therefore* opakovaně. *Consequently, as a result a hence* se všeobecně používají spíše jen okrajově.

Předpoklady založené na sekundární literatuře byly dále potvrzeny kvalitativní analýzou postavení vybraných rezultativních konektorů, která odhalila, že studenti i profesionální

autoři pro konektory nejčastěji volí počáteční pozici ve větě. Konkrétně *as a result* a *hence* se v obou typech textů vždy objevují na počátku věty, zatímco u *therefore* je počáteční postavení ve větě preferováno pouze studenty. Profesionální autoři *therefore* častěji umísťují doprostřed věty a překvapivě se u nich objevily i případy, kde byl tento konektor použit na konci věty (tj. za všemi obligatorními členy větné struktury). Konečně *consequently* se v obou typech textů běžně objevuje v pozici na počátku i uprostřed věty, avšak zatímco u studentů *consequently* převažuje uprostřed věty, profesionální autoři častěji volí počáteční postavení konektoru.

Poslední část analýzy věnovala pozornost dosahu vybraných konektorů. Byla rozlišena dvě základní užití: V prvním případě konektor uvozuje větu, která uvádí přímý následek situace popsané ve větě/souvětí, které konektoru bezprostředně předchází (tzv. „immediate scope“). V druhém případě má konektor dosah širší (tj. přesahuje hranici předchozího souvětí) a kromě vyjádření následku také shrnuje situaci popsanou v předchozích větách (tzv. „summative scope“). Analýza ukázala, že zatímco ve studentských pracích významně dominuje prvně jmenované užití konektorů, profesionální autoři používají konektory oběma způsoby téměř stejně často – druhý jmenovaný typ užití je dokonce o něco častější. Rozdíly mezi studenty a profesionálními autory přitom byly zaznamenány i v samotném užití konektorů se širším dosahem. Kromě toho bylo zjištěno, že z blíže zkoumaných konektorů studenti používají k shrnutí pouze *therefore*. V odborných článcích byly s užším i širším dosahem použity všechny konektory.

V samotném závěru analytické části byla odhalena i jistá souvislost mezi postavením rezultativních konektorů a jejich dosahem. Ukázalo se totiž, že studenti často upřednostňují konkrétní pozice podle toho, s jak širokým dosahem je konektor v textu použit – například do počáteční pozice ve větě jsou častěji umísťovány konektory s užším dosahem. U profesionálních autorů jsou podobné tendence podstatně méně výrazné.

Kromě specifických poznatků týkajících se užívání konektorů ve studentských esejích a odborných článcích přinesla práce také metodologické poznatky. Potvrdilo se, že složení korpusu je pro tento typ výzkumu vhodné; pro zkoumání konektorů je však třeba vybrané texty dále upravit (např. odstranění citací). Výsledky ukazují také na nutnost kombinace různých metod při porovnávání kvantitativních charakteristik studentských a odborných textů.

## Appendix

The appendix comprises all the occurrences of the result/inference connectives *therefore*, *as a result*, *hence* and *consequently* that were chosen for the closer analysis. The sentences extracted from the student corpus are presented in Appendix table 1 while those extracted from the article corpus are given in Appendix table 2.

**Appendix table 1:** The occurrences of the selected connectives in the student corpus

es01	Shakespeare's Sonnet 60 <b>therefore</b> is rather contrasting compared to the formal continuity seen in Spenser's Sonnet 75.
es04	But apart from this uniting ideological aim, a closer examination proves that the sonnets are dissimilar in tone, structure, poetic means and imagery used to express the similar message, and <b>therefore</b> altogether affect the reader in significantly different way.
es04	Moreover, using minutes and waves, which are both units of the whole, and <b>therefore</b> the result of their action is visible in a short period, even intensify the perception of high speed.
es06	<b>Therefore</b> they consist of 14 verses, are divided into three quatrains and one closing couplet.
es06	For him, <b>therefore</b> , his poetry and verses are the key element in preserving his love. His poems the same as love itself are eternal.
es06	Spencer <b>therefore</b> uses dialogue rather than exaggerated imaginary to develop his main and straightforward idea.
e106	Last remark about their relationship, is in the court scene in which Bassanio claims that Antonio's life is more precious than his wife is, nevertheless states that he loves her dearly, <b>therefore</b> buries any potential future for the two men.
e106	Sedgwick <b>therefore</b> suggests that: "the play emphasizes heterosexual love chiefly as a strategy of homosocial desire"
es07	<b>Therefore</b> , the sonnet's central theme of memorialization is reiterated by its structure.
es07	<b>Therefore</b> , he ties the words in an unbreakable bond, just like he is tied to his lover.
es07	<b>Therefore</b> , the structure suggests a purpose of commemorating Shakespeare and maintaining his genius.
e107	<b>Therefore</b> , it is only logical that poets took interest in alchemy as well and unified it with sight in poetry.
e107	<b>Therefore</b> , it seems that the beloved one possesses power to turn poets into monarchs (albeit figuratively).



e107	<b>Therefore</b> , it can be assumed that it is the beauty and appearance of things which matters most to the poet's eyes enchanted by alchemy.
e107	<b>Therefore</b> , their relationship appears to be off balance.
e107	<b>Therefore</b> , the eyes and the heart are feeding upon the beauty of the beloved one and the appearance of the youth is again of great importance to the poet similarly to Sonnets 114 and 24.
es09	<b>Therefore</b> Jessica's role in the merchant of Venice brings significant questions regarding the whole concept of Jewishness.
es10	It is provided for this function by not owing its gift, its creation, to Time, <b>therefore</b> Time is not able to "confound" it only by passing like the waves.
es11	The person who represents issues connected with religion and money, undoubtedly makes things happen in the play, and <b>therefore</b> is the key character, is Shylock.
es11	In the play, the character of Shylock is the only one who undergoes a transformation of some kind, and is <b>therefore</b> – at least psychologically – the most interesting one.
es11	The storyline with Antonio's loan with the condition of taking a pound of his flesh is a central theme of the play, which means Lorenzo and Jessica's elopement truly set things in motion and <b>therefore</b> , its role in The Merchant of Venice is absolutely crucial.
e111	And that just might be the greatest difference between The Merchant of Venice and Volpone: in the first, most characters are comedic characters with a sense of what is right and what is wrong, while in the second, the characters are those of a merciless satire, and <b>therefore</b> they display as many bad traits of character as possible – and improper sexuality is integral to that.
e112	<b>Therefore</b> , it is the metaphorical monuments that are important for Shakespeare's immortalization, rather than the material ones.
es13	<b>Therefore</b> he refers to him several times.
es13	<b>Therefore</b> he should receive greater attention from the readers. The importance of his role should not be undervalued.
e113	<b>Therefore</b> she suspects the authenticity of Bassanio's verbal declarations.
e113	<b>Therefore</b> she plans her elopement with Lorenzo and she is looking forward to converting from Judaism to Christianity.
e113	<b>Therefore</b> he must mask himself as a mountebank.
e114	Yet, or rather <b>therefore</b> , Spenser strikes senses more immediately, does not burden his lines with opaque adjectives or references.

es16	Though manipulative, Portia still represents mercy in the play, for she does not truly hold any grudge against Bassanio; her deal does not involve death if failed and is <b>therefore</b> juxtaposed to the cold-hearted vengefulness of Shylock's ordeal.
es18	Firstly, in Spenser's Sonnet 75, the rhyme scheme is ABAB BCBC CDCD EE, the poem is <b>therefore</b> divided into three quatrains and a final couplet which is, of course, typical for the Spenserian sonnet.
es18	The difference is however in the main conceit in the sense that where Spenser aspires to immortalize his love as an intimate feeling, Milton pays homage to a glorified artist, expressing <b>therefore</b> love not of intimate but rather national nature.
es18	The message is <b>therefore</b> similar to the one in Spenser's sonnet in the sense that where external memorization of people falls victim to the unavoidable and uncompromising passing of time, it is in art where the memory of them will be forever preserved.
es21	As he cannot punish the man who stole from him he makes use of the very first opportunity to apply the old rule "eye for an eye" on the very first Christian that he comes across. Shylock, who is since the beginning of the play rather money-focused seems quite irritated by the Christian behaviour, accusations and <b>therefore</b> asks for his service something extraordinary – a pound of Antonio's flesh – as if to prove the prejudice that Christians look down at him with.
e121	<b>Therefore</b> , the figure of sympathetic hero is somewhat blurred.
e121	The conspiracy and disguise created by Volpone and promoted by Mosca <b>therefore</b> appear as a form of justified trick played on those who deserve it.
e121	<b>Therefore</b> the usage and form of disguise must necessary be of a different kind.
es25	He is <b>therefore</b> an inseparable part of the play and a great amount of focus should be given to Launcelot when analyzing the play.
es26	The scene of Jessica's escape <b>therefore</b> also serves as the first punishment of Shylock and arguably constitutes the turning point in Shylock's attitude.
es26	Jessica can be <b>therefore</b> seen as the cause of this behaviour and her elopement with Lorenzo as the turning point in Shylock's pursue of vengeance.
es26	Jessica's betrayal <b>therefore</b> does not have to be perceived only as a punishment, but can be seen as an opportunity for Shylock to be reconciled and possibly also redeemed.
e126	She <b>therefore</b> represents both money and sexuality.
e126	Sexuality and marriage can be <b>therefore</b> in the case of Bassanio and Portia, and presumably of Jessica and Lorenzo, regarded as closely connected to money making and money preserving.

e126	The representation of sexuality <b>therefore</b> seems to, in the case of these three dramas, to serve different purposes within the structure of the play.
e126	Parodied sexuality has been <b>therefore</b> presented in dramatic works since the origin of comedy.
es27	<b>Therefore</b> , one can see that although there is a slight disparity between them, they are formally somewhat similar for the most part.
es28	<b>It therefore</b> works with the idea of continuity of life as well, only „On Shakespeare“ offers another kind of immortality.
es30	<b>Therefore</b> we can undoubtedly consider the Jessica and Lorenzo’s elopement a vital motif of the entire play.
es31	Similarly, Romeo and Juliet were also persecuted in a way and definitely suffered for their love and <b>therefore</b> become martyrs just like the canonized couple.
e132	The representation of sight and vision is <b>therefore</b> very obvious, as it is represented by the eye, the organ of sight.
e132	Once more, true love is what is strongest and what makes the mind true as well, whereas objects around the speaker are untrue and not important, <b>therefore</b> they make the eyes also untrue.
e132	The mind is stronger with the thoughts of the loved one, <b>therefore</b> vision can never defeat it either, because vision can never countermand mind’s powerful thoughts with vision’s feeble imagery.
es33	<b>Therefore</b> , even though Shakespeare’s metaphors are more dramatic and grander, the author of Sonnet 60 still seems to communicate his intent in a more humble way.
es33	Spenser uses the visual help of the tide as well, only in Sonnet 75 the sea becomes one with the idea of time, and <b>therefore</b> impersonates the destroying force of the poem.
e134	He laments the fact that he is unable to protect himself from the sun’s rays in any way, but he also admits that he cannot look away from it, like a scorned lover refuses to let go of the beauty that has rejected him, even though inevitably he is only causing more harm to himself, all in vain hopes that he might one day look upon the sun and <b>therefore</b> receive the love of his adored counterpart.
e134	It serves as a metaphor for reciprocity or lack thereof and can only be applied exclusively to the speaker, while the object of their love is unable to see and <b>therefore</b> remains essentially passive throughout the poem.
e106	<b>As a result</b> it seems that they use each other for their personal enrichment and love is just a redundant feeling.
e107	<b>As a result</b> , the youth is never truly gone for he is engraved in the poet’s mind as he claims that “thou not farther than my thoughts canst move” (line 11).

e107	<b>Consequently</b> , the Renaissance man had wide knowledge of literature and sciences.
e112	The woman becomes the hunter and the speaker <b>consequently</b> becomes the hunted animal, or the object of the woman's seduction, which is something not very common in early modern poetry.
e113	While The Merchant of Venice presents only masked heroines, Volpone relishes changing costumes which enables him to perform trickery <b>consequently</b> leading to his doom.
e113	Suddenly, the appearance of a diseased person is redundant for Volpone, thus he disposes the mask which <b>consequently</b> proves fatal.
es27	In addition to that it is also relevant to pay attention to the choice of verbs in the heroic couplet which are what leaves the last impression with the reader and are <b>consequently</b> of quite the significance.

**Appendix table 2:** The occurrences of the selected connectives in the article corpus

p01	Audiences were also no doubt surprised, <b>therefore</b> , when one of these turned out to be a certain Master George Page.
p01	Many of Margaret and Anne Page's lines must <b>therefore</b> have seemed ironic to audiences familiar with the real-life "Mistress Page."
p02	In terms of a hermeneutic of motivation, <b>therefore</b> , critics have generally offered several possibilities.
p02	Scitovsky's critical hypotheses <b>therefore</b> are not significant merely for their relevance to our modern, consumer-capitalist age, though their focus is the perpetuation of bourgeois ennui through irrational consumption and the hegemonic influence of those forces which Max Weber characterized seventy years earlier as comprising "an immense cosmos into which the individual is born, and which presents itself to him . . . as an unalterable order of things in which he must live."
p02	I want, <b>therefore</b> , to spend some time systematically mapping out Scitovsky's theses alongside an analysis of action and motivation in Volpone, whose increasingly complex plot generates a series of increasingly complex stimuli.
p02	Jonson <b>therefore</b> offers his audience a Scitovskian aesthetic, an exercise in skilled consumption.
p03	Archimago's girdlebook, <b>therefore</b> , is a sign of either Protestant faithfulness or Catholic hypocrisy.
p04	Although he admits that idolatry can sometimes occur even in the absence of an idol, Tertullian considers devotion paid to pagan statues the prototypical form of idolatry, and <b>therefore</b> recommends a strategy of strenuous avoidance.
p04	Corbaccio's "must" is <b>therefore</b> a hopeful prediction, not the "must" of causal necessity.

p04	He wants to “worship” gold, because it is what he most loves, and <b>therefore</b> he attributes to it almost all the glories of godhead—celestial origin, great antiquity, inexpressible beauty and power.
p04	Volpone <b>therefore</b> needs to court her favor; and as soon as he begins to do so, he starts to present her with gifts.
p05	<b>Therefore</b> , Bellario’s refusal to marry at the end of this play constitutes a threat to society as much as (or more than) to herself, and it seems to me that the critics who lament Bellario’s decision not to marry may be lamenting as well the disruption such a decision could cause in those structures of power, position, allegiance, and service that create their (and our) own identities.
p05	<b>Therefore</b> , one reason it seems unfair to restrict our image of Bellario to that of a passive, disinterested figure hopelessly in love with the Prince at the end of this play, is that that picture cannot accommodate the strong undercurrent of female/female attachment that informs Bellario’s relationship with Arathusa.
p06	Swinburne rejects the debt analogy, however, because a marriage is to be "mutually performed by both Parties," and <b>therefore</b> the deadline is "set down to finish and determine [set limits to] the Covenant and Bond"; hence the party who has been stood up is free to marry someone else.
p07	<b>Therefore</b> , it is highly improbable that Jonson would not have seen that some classical and medieval authorities did not consider fame to be unequivocally good.
p08	<b>Therefore</b> , Juliet must have been born after Compline – that is, between 9 p.m. and midnight--on July 31, 1568.
p09	That discussion concludes when Scaliger suggests that poets differ from philosophers, historians, and the rest because while these others “represent things just as they are, . . . the poet depicts quite another sort of nature,” and, <b>therefore</b> , is justly called by the Greeks a maker (pp. 7–8).
p10	Modifying Fineman’s punchy question, one could <b>therefore</b> ask if it is possible to speak for the language and authority of men without exposing subversion?
p10	Where Petruchio seems to take from Kate her sense of identity, <b>therefore</b> , he also drives her to become something more than a shrew and eventually to gain more power—more theatrical autonomy—than she has at the beginning of the play.
p11	<b>Therefore</b> , Guyon next directs his efforts to the Bower itself, seeking to prevent its allures from clouding the vision of other men and women.
p11	<b>Therefore</b> , the reestablishing of boundaries in the final stanzas both concludes Spenser’s ethical allegory of temperance and serves to distinguish Spenserian from Acrasian poetry.
p12	Spenserian criticism has long been fascinated with mapping the geographical and structural landscape of the poet’s work; <b>therefore</b> , the first strand engages with the well-established focus on navigating Spenser’s writing, which has been of critical importance

	ever since Samuel Taylor Coleridge remarked on the ‘true imaginative absence of all particular time and space in <i>The Faerie Queene</i> ’.
p12	He draws on the work of the French philosopher and sociologist Henri Lefebvre, who in <i>The Production of Space</i> (1974) explores how space is socially produced and determined by complex relations; more than just a simple mapping exercise <b>therefore</b> , Burlinson’s reading of Spenser interrogates the power structures that shape particular places in the poet’s writing.
p12	The second strand of criticism, <b>therefore</b> , concerns islands and their privileged position in imaginative literature.
p12	The many islands of <i>The Faerie Queene</i> offer a bewildering variety of allegories and <b>therefore</b> this article will culminate in a reading of the literal and conceptual islands of the <i>Mutabilitie Cantos</i> .
p12	Spenser’s contemporary Roger Ascham associated romance literature with the ‘enchantments of Circe’ and <b>therefore</b> it is fitting that the ruling deity of the mode should be an island-dweller in the early modern imagination.
p12	If, <b>therefore</b> , as Paul Carter explains, coastal geographies map an expansive, outward-looking perspective, islands occur when coasts reveal their other side and become ‘detached’.
p12	<b>Therefore</b> , <i>Colin Clouts Come Home Again</i> offers the reader a witty inversion of what would typically be expected from a travel narrative.
p15	But true to Barkan's word, Spenser <b>therefore</b> gives his first origins as a thinking presence fulfilment only through their integration into a further origin, itself to be fulfilled.
p15	This reading is <b>therefore</b> retained by a succession of <i>Heroides</i> editors (Volscus, Clericus, Bade, Morillon) who are more interested in moral and rhetorical commentary than textual scholia.
p15	But both paradigms for knowledge of our own minds tend to focus, in different ways, on sequential movement from lower to higher levels of representation through language, and have <b>therefore</b> typically been troubled by their relative inability to get at the significance of the experience of consciousness as an instantaneous continuum.
p16	Each body part <b>therefore</b> receives a poetic and an anatomic treatment, the two discourses frequently demanding to be read in tandem to elucidate particularly obscure passages detailing the intricacies of some muscle or bodily function.
p16	If Fletcher's physical allegory is indeed characteristic of an increasingly obsolete world-view seeking to treat the body as Scripture rather than mechanism, it can <b>therefore</b> be only uncomfortably supported by the ‘new’ science of the marginalia.
p16	Perhaps deemed empirically false, the eyebeam is left as a purely emotive truth, a wonderfully illogical bit of poetic logic, carrying <b>therefore</b> a suitable tenor of defiant absurdity, felt but unprovable.

p19	The 'oblique course' or loxodrome is <b>therefore</b> appropriate both to the specific occasion of Donne's poem and to its larger and more philosophical claims, for it would seem to confirm Izaak Walton's assertion that Donne addressed A Valediction: Forbidding Mourning to his wife before a voyage, and it grounds the spiral path of human love in a particularly apt metaphor.
p20	There is a need, <b>therefore</b> , to turn critical attention to mechanisms sonneteers employ to achieve interactivity with the reader and a perception of integrity, as well as to acknowledge that the use of such mechanisms betrays the presence of novelistic thinking.
p22	My reading of Puttenham <b>therefore</b> seeks to situate his account of the natural in terms of a larger theory of reception whose strategy is to redefine, and thus to defend, the role of the poet – a strategy that entails a provocative assertion of the power of the physiological to supersede structures of social and political power.
p22	Puttenham's preoccupation with aurality <b>therefore</b> has much to do with a common early modern belief that the ear plays a key role in determining the equilibrium of the receptive body as a whole.
p24	She <b>therefore</b> uses Antonio to complete her conquest of Bassanio, and in that way she perfects the control-over herself, her husband, and her property-which her desire placed in jeopardy in the casket scene.
p25	Shakespeare's own unique discernment of language and desire, <b>therefore</b> , should not be subsumed by an ubiquitous concept of structure.
p27	It is not necessary, <b>therefore</b> , to discover in this sonnet a humanism which avoids the supposed contradictions of Christianity.
p30	I have <b>therefore</b> argued that the Merchant interrogates the Elizabethan sex/gender system and resists the "traffic in women," because in early modern England a woman occupying the position of a Big Man, or a lawyer in a Renaissance Venetian courtroom, or the lord of Belmont, is not the same as a man doing so.
p31	Immediately, <b>therefore</b> , we see that whatever Antony has become in Egypt, he is certainly not a eunuch; for a eunuch, as Mardian is painfully aware, has no powers "to cool" anyone's lust. Furthermore, Cleopatra is far more magnificent than Philo's references to her as "a tawny front" and a gypsy would allow.
p32	Most of the population would <b>therefore</b> have spent some portion of their lives in service, and for many that condition would have been permanent. Furthermore, being a servant transcended class status.
p32	Viola can <b>therefore</b> embody her real, differently gendered condition only as the self-effacing Cesario.
p32	Viola abandons herself to the "whirlegigge of time" (TLN 2546-47); unlike the Sonnets' poet, she can depend on the fact of her gender and inherited status, and can <b>therefore</b> assume that the passage of time will finally rescue her: "O time, thou must vntangle this, not I, / It is too hard a knot for me t'vnty" (TLN 696-97).

p04	<b>As a result</b> , in the opening speech Volpone’s treasure seems both “too alive” and “too dead.”
p07	<b>As a result</b> , Meagher argues, “Fame and perfection, reputation and worthiness, were to remain problematic to the Renaissance, never to be solved or resolved” (p. 150).
p11	<b>As a result</b> , Cymochles “flowes in pleasures, and vaine pleasing toyes, / Mingled emongst loose Ladies and lasciuious boyes” (II.v.28.8–9), thoughtlessly enjoying a fluid life of dissolution before his death at the hands of Prince Arthur—an end that averts his otherwise inevitable transformation into a beast.
p13	<b>As a result</b> , it cannot be overturned or alleviated by any sort of specific remedy, Galenic or otherwise.
p21	<b>As a result</b> , it unconsciously betrayed concern about the effectiveness of the patriarchal system to ensure the security of all members of society.
p27	The soul, in its deceived and selfdestroying career, is feeding its very enemies and <b>as a result</b> is pining away (the word has associations of starving and of being consumed) and suffers dearth (famine).
p34	<b>As a result</b> , Volpone’s fraud anticipates later understandings of possessive individualism—that is, belief that personal security and individual rights are grounded in ownership of the body and of material property accrued through its actions.
p06	Swinburne rejects the debt analogy, however, because a marriage is to be "mutually performed by both Parties," and therefore the deadline is "set down to finish and determine [set limits to] the Covenant and Bond"; <b>hence</b> the party who has been stood up is free to marry someone else.
p13	<b>Hence</b> , the presence of melancholy grinds against the play’s comic structure and stalls dramatic progression.
p27	<b>Hence</b> it is meaningless to speak of vengeance in connection with the soul's coming to itself and asserting its rightful superiority over the body.
p27	The servant will pine anyhow, but no need for the master to starve with it; <b>hence</b> the soul must cease futile efforts to preserve the body ("let that pine", with "let" meaning "allow" rather than having a jussive force) and turn the inevitable to its own advantage ("aggrauat thy store").
p02	<b>Consequently</b> , there are two sources of pleasure: “the reduction of stimulus that is above its optimal level, and its increase from suboptimal levels” (Joyless Economy, p. 46).
p02	<b>Consequently</b> , those seeking such styles of life, namely Voltore, Corvino, and Corbaccio, are demonstrating in their unhappiness the untutored desires that perpetuate ennui amid a hegemony of comfort.
p07	<b>Consequently</b> , Fame emerges as a very capricious and unreliable deity, a true sister of “dame Fortune” (l. 1547).



p07	<b>Consequently</b> , the printed version of The Masque of Queens consists of three elements: the speeches, the descriptions of the setting, and the copious glosses.
p07	<b>Consequently</b> , on the surface the masque attempts to relegate all the evil aspects of news-mongering, such as mischief, slander and ignorance, to the antimasque realm of Anti-Fame.
p08	<b>Consequently</b> , on July 15 in London it was July 25 in Verona and the rest of Catholic Europe.
p08	What strikes Capulet funny is that his feast honoring Saint James on July 25 was yesternight and <b>consequently</b> today's date must be July 26, which was a Thursday to a Gregorian anticipator in 1582.
p13	<b>Consequently</b> , Antonio locates himself in what constitutes a middle ground between protagonist and antagonist, aiding Bassanio while refusing to alter his sorrowful mood to better suit the comic setting.
p13	<b>Consequently</b> , he is directly tied to the laughter the play engenders, both in his accoutrement and characterization, and through the fanfare that follows his discomfiture in the trial scene and subsequent exit from the play.
p16	The eye, <b>consequently</b> , becomes mere 'minister'. Barrough is clearly aware of the irony, as the eye is itself inspected, pried into, subjected to its own scrutiny.
p16	Fletcher sees himself as a late exponent of the Spenserian tradition ( <b>consequently</b> The Purple Island has been critically depicted as a piece of Fairie Queene poeticism years too late), and I would like to see his fidelity to the eyebeam motif in the light of this adherence to the imaginative vocabulary and the metaphors of his poetic heritage; the eyebeam motif, in other words, is a kind of calling-card for a long-established poetic school.
p25	<b>Consequently</b> , although this scene undoubtedly leaves the balance of power on the side of the women, it is also possible to read the women's actions, and thus the play up to this point, as complicit in the very structure of male desire they seem to have foiled.
p25	The Princess occupies the place of Diana and Elizabeth: she is uniquely empowered among women as an inaccessible object of male desire who <b>consequently</b> both serves and disrupts patriarchal authority.
p34	<b>Consequently</b> his account might not seem obviously relevant to the political and economic situation of Jonson's theater.
p34	<b>Consequently</b> , it remains unclear how these hypothetical critical communities relate to the assembly of author, paid actors, and paying auditors at the playhouse.