

University of Pardubice
Faculty of Arts and Philosophy

Subordination vs. Coordination in Academic Discourse
Bachelor Thesis

2025

Jakub Drvota

Univerzita Pardubice
Fakulta filozofická
Akademický rok: 2022/2023

ZADÁNÍ BAKALÁŘSKÉ PRÁCE

(projektu, uměleckého díla, uměleckého výkonu)

Jméno a příjmení: **Jakub Drvota**
Osobní číslo: **H22026**
Studijní program: **B0231A090018 Anglický jazyk**
Specializace: **Anglický jazyk pro vzdělávání**
Téma práce: **Subordination vs. coordination in academic discourse**
Zadávací katedra: **Katedra anglistiky a amerikanistiky**

Zásady pro vypracování

Cílem práce je analýza autentických anglických textů akademického stylu se zaměřením na distribuci vztahů koordinace a subordinace v jednotlivých souvětích s ohledem na rozdíly v účelu jejich použití. Student na základě studia odborné lingvistické literatury podrobně popíše formy i funkce vztahů koordinace a subordinace na úrovni jednotlivých klauzí v souvětích. Zaměří se především na použití jednotlivých konektorů signalizujících daný vztah, formu dané klauze včetně jejího umístění v souvětí a na sémantické podkategorie jednotlivých vztahů.

V následné praktické části si zvolí dostatečný počet odborných článků akademického stylu, zmapuje výskyt jednotlivých kategorií závislých i nezávislých klauzí nejen co do četnosti daných forem i sémantických vztahů, ale i do efektu použití v různých situacích. Bude se snažit identifikovat důvody rozdílností použití koordinace a subordinace také s ohledem na kontext, případně i na téma konkrétního článku. V závěru bude interpretovat svá zjištění ve vztahu k hypotéze, kterou si stanoví na základě studia odborné literatury.

Rozsah pracovní zprávy:
Rozsah grafických prací:
Forma zpracování bakalářské práce: **tištěná/elektronická**
Jazyk zpracování: **Angličtina**

Seznam doporučené literatury:

- Biber, Douglas, Stig Johansson, Geoffrey Leech, Susan Conrad, and Edward Finegan. 1999. *Longman Grammar of Spoken and Written English*. Harlow: Pearson Education.
- Biber, Douglas, and Susan Conrad. 2009. *Register, Genre, and Style*. New York: Cambridge University Press.
- Dušková, Libuše et al. 2009. *Mluvnice současné angličtiny na pozadí češtiny*. Electronic edition. Ústav anglického jazyka a didaktiky, FF UK. <https://mluvniceanglictiny.cz/>.
- Greenbaum, Sidney, and Gerald Nelson. 2013. *An Introduction to English Grammar*. 3rd ed. New York: Routledge.
- Huddleston, Rodney, and Geoffrey K. Pullum. 2002. *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press.
- Huddleston, Rodney and Geoffrey K. Pullum. 2004. "The Classification of Finite Subordinate Clauses." In *An International Master of Syntax & Semantics*, edited by Gunnar Bergh, Jennifer Herriman, and Mats Möbärg, 103-116. Gothenberg: ACTA Universitatis Gothoburgensis.
- Huddleston, Rodney, and Geoffrey K. Pullum. 2006. "Coordination and Subordination." In *The Handbook of English Linguistics*, edited by Bas Aarts, and April McMahon, 198–219. Oxford: Blackwell Publishing.
- Leech, Geoffrey, and Jan Svartvik. 1975. *A Communicative Grammar of English*. 3rd ed. Harlow: Longman.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik. 1985. *A Comprehensive Grammar of English Language*. Harlow: Longman.
- Verstraete, Jean-Christophe. "Two Types of Coordination in Clause Combining." *Lingua* 115 (4): 611–626. <https://doi.org/10.1016/j.lingua.2003.09.018>.

Vedoucí bakalářské práce: **PhDr. Šárka Ježková, Ph.D.**
Katedra anglistiky a amerikanistiky

Datum zadání bakalářské práce: **31. března 2023**

Termín odevzdání bakalářské práce: **1. dubna 2024**

doc. Mgr. Jiří Kubeš, Ph.D.
děkan

Mgr. Olga Roebuck, Ph.D.
vedoucí katedry

V Pardubicích dne 30. listopadu 2023

Prohlašuji:

Práci s názvem *Subordination vs. Coordination in Academic Discourse* jsem vypracoval samostatně. Veškeré literární prameny a informace, které jsem v práci využil, jsou uvedeny v seznamu použité literatury.

Byl jsem seznámen s tím, že se na moji práci vztahují práva a povinnosti vyplývající ze zákona č. 121/2000 Sb., o právu autorském, o právech souvisejících s právem autorským a o změně některých zákonů (autorský zákon), ve znění pozdějších předpisů, zejména se skutečností, že Univerzita Pardubice má právo na uzavření licenční smlouvy o užití této práce jako školního díla podle § 60 odst. 1 autorského zákona, a s tím, že pokud dojde k užití této práce mnou nebo bude poskytnuta licence o užití jinému subjektu, je Univerzita Pardubice oprávněna ode mne požadovat přiměřený příspěvek na úhradu nákladů, které na vytvoření díla vynaložila, a to podle okolností až do jejich skutečné výše.

Beru na vědomí, že v souladu s § 47b zákona č. 111/1998 Sb., o vysokých školách a o změně a doplnění dalších zákonů (zákon o vysokých školách), ve znění pozdějších předpisů, a směrnicí Univerzity Pardubice č. 7/2019 Pravidla pro odevzdávání, zveřejňování a formální úpravu závěrečných prací, ve znění pozdějších dodatků, bude práce zveřejněna prostřednictvím Digitální knihovny Univerzity Pardubice.

V Pardubicích dne 28. 11. 2025

Jakub Drvota v. r.

Poděkování

Chtěl bych poděkovat vedoucí práce PhDr. Šárce Ježkové, Ph.D. za ochotu a pomoc poskytnutou při psaní práce.

ANNOTATION

The focus of this bachelor thesis is the use of coordination and subordination in academic discourse. In the theoretical part of the thesis, the two relations are described, with a focus on specific subcategories of each relation and the conjunctions used in each relation. In the practical part of the thesis, authentic instances of each relation, which constitute the corpus of this thesis, are analysed. The analysis focuses on the distribution of the particular forms of each relation and the purpose of their use.

KEY WORDS

coordination, subordination, nominal clause, relative clause, adverbial clause

NÁZEV PRÁCE

Subordinace vs. koordinace v akademické diskurzu

ANOTACE

Tato bakalářská práce se zaměřuje na použití vztahů koordinace a subordinace v akademickém diskurzu. Oba vztahy jsou nejprve popsány v teoretické části práce se zaměřením na konkrétní podkategorie obou vztahů a spojky používané v obou vztazích. Následně jsou v praktické části analyzovány autentické výskyty obou vztahů, které tvoří korpus této práce. Analýza se zejména zaměřuje na specifické formy obou vztahů a účel jejich použití.

KLÍČOVÁ SLOVA

koordinace, subordinace, obsahová věta, vztažná věta, příslovečná věta

Table of Contents

| | |
|--|----|
| Introduction | 9 |
| 1 Coordination vs. Subordination | 10 |
| 1.1 Compound and complex sentences | 10 |
| 2 Coordination | 12 |
| 2.1 Coordinators | 15 |
| 2.1.1 Correlative coordinators | 17 |
| 2.1.2 The Meaning of Coordinators | 18 |
| 3 Subordination..... | 21 |
| 3.1 Signals of subordination..... | 21 |
| 3.2 Types of subordinate clauses..... | 22 |
| 3.3 Nominal clauses | 23 |
| 3.3.1 Subordinate declarative clauses | 24 |
| 3.3.2 Subordinate interrogative clauses..... | 25 |
| 3.3.3 Subordinate exclamative clauses..... | 26 |
| 3.3.4 Nominal relative clauses | 26 |
| 3.4 Relative clauses | 27 |
| 3.4.1 Non-finite relative clauses..... | 28 |
| 3.5 Adverbial clauses | 28 |
| 3.5.1 Clauses of time and place..... | 29 |
| 3.5.2 Clauses of condition, concession, and contrast | 29 |
| 3.5.3 Clauses of exception..... | 30 |
| 3.5.4 Clauses of reason..... | 31 |
| 3.5.5 Clauses of purpose | 32 |
| 3.5.6 Clauses of result | 32 |
| 3.5.7 Clauses of similarity, comparison, proportion, and preference..... | 32 |
| 3.5.8 Other semantic roles..... | 33 |
| 4 Analysis..... | 34 |
| 4.1 Distribution of coordination and subordination | 34 |
| 4.2 Coordination..... | 35 |
| 4.2.1 Ellipsis in coordination..... | 36 |
| 4.2.2 Use of coordinators | 37 |
| 4.3 Subordination | 38 |
| 4.3.1 Nominal clauses | 39 |
| 4.3.2 Relative clauses | 42 |

| | |
|-------------------------------|----|
| 4.3.3 Adverbial clauses | 45 |
| Conclusion..... | 48 |
| Resumé | 50 |
| Bibliography..... | 53 |
| Appendix 1 – Corpus..... | 55 |
| Appendix 2 – Tables..... | 71 |

Introduction

This thesis aims to examine the distribution of coordination and subordination in academic discourse. It consists of two parts, one theoretical, the other practical.

The theoretical part of the thesis consists of three chapters. The relations of coordination and subordination are first defined. Then, the basic terminology used in their description is established. Both relations are subsequently described in more detail in their own dedicated chapters, with the second chapter dedicated to coordination, and the third chapter to subordination. In each of the two chapters, the main subcategories of the given relation and the markers of those relations are detailed.

The practical part of the thesis utilizes the theoretical framework established in the preceding section to analyse the predominant tendencies in the use of each of the two relations. In order to do so, a corpus consisting of 200 authentic instances of the use of the two relations was collected.

1 Coordination vs. Subordination

In English, clauses can be joined together, forming more complex structures, with the relation between them being either that of coordination or subordination. The difference between the two relations can best be understood in terms of constituency. According to Huddleston and Pullum, a sentence is a structure consisting of smaller units, called constituents, which may themselves be composed of smaller constituents, forming a hierarchy called a constituent structure (2002, 20). The main difference between the two relations is the fact that in coordination, the joined units are “constituents at the same level of constituent structure,” whereas in subordination, one of the joined unit is a constituent of the other (Quirk et al. 1985, 918).

1.1 Compound and complex sentences

When multiple clauses are joined together, they form a “multiple sentence,” which is a term used by most grammarians, such as Quirk et al. (1985, 719) or Greenbaum and Nelson (2013, 104). A multiple sentence contrasts with a “simple sentence,” which consists only of a single “main clause” (Leech and Svartvik 1975, 268). According to Crystal, a main clause is a clause that is independent and “can stand on its own as a sentence” (2008, 292).

There are two major types of multiple sentence, based on the relation between the joined clauses. When a sentence consists of two or more main clauses joined by coordination, it is called a “compound sentence” (Quirk et al. 1985, 987). When, on the other hand, a sentence consists of clauses joined by subordination, it is called a “complex sentence” (Quirk et al. 1985, 719; Huddleston 1984, 378). According to Quirk et al., a complex sentence consists of a single main clause and at least one “subordinate clause” (1985, 987). Other terms for subordinate clauses are also used in various grammars, but the term subordinate clause is the one most frequently used and will also be used in this thesis. A clause of which a subordinate clause is a constituent is called a “superordinate clause” (Crystal 2008, 465). Additionally, Quirk et al. use the term “matrix clause” to describe a superordinate clause without its subordinate clause (1985, 991). Both terms will be used in this thesis.

A clause joined by coordination is commonly termed a “coordinate clause” (Brown and Miller 2013, 111). Other terms are sometimes used. Quirk et al. use the term “conjoint” for a whole coordinated structure and the terms “coordinated constituents,” “coordinated units,” or simply “conjoints” for the individual elements that make up the coordinated structure (1985, 46–47).

Huddleston and Pullum (2002, 1275) refer to the joined elements as “coordinates,” which is a term also used by Matthews (1981, 197). In this thesis, I will use both “coordinate clause” and “coordinate.”

Coordination and subordination may be combined in the same sentence. A complex sentence may include clausal coordination between its subordinate clauses (Greenbaum 1996, 315). Similarly, a main clause in a compound sentence may contain a subordinate clause (Quirk et al. 1985, 989; Greenbaum and Nelson 2013, 113). Both authors include such sentences under the category of compound sentences. Unlike them, Huddleston suggests the term “compound-complex sentence” to describe such cases (1984, 379). It suffices to mention that these other classifications exist, since no such distinction is necessary in this thesis.

2 Coordination

Various types of coordination are recognized by grammarians based on certain distinguishing features, such as the syntactic status of the coordinated units, the number of coordinated units, or the presence of a linking word marking the relationship between the units. This chapter describes those categories deemed relevant to the topic of the thesis.

To begin with, a basic distinction can be made based on the number of coordinates. “Binary coordination,” as the name suggests, is between two coordinates, whereas when there are more than two coordinates, the relation is termed “multiple coordination” (Huddleston and Pullum 2002, 1276). It is possible for multiple coordination to take place across several levels within a given coordination, with one set of coordinates being linked to another (Quirk et al. 1985, 926). The term used by Huddleston and Pullum for this is “layered coordination” (2002, 1278). Layered coordination is illustrated in the following sentence, where the first two coordinates are joined to the third at a higher level:

- [1] Money is not everything, but it is necessary, and business is not volunteer work.
(Greenbaum 1996, 312)

Within the category of multiple coordination, Quirk et al. make a further distinction between “ordinary syndetic” and “polysyndetic” coordination (1985, 927). The same distinction is made by Huddleston and Pullum, who use the term “simple-syndetic” for ordinary syndetic coordination (2002, 1276). In simple-syndetic coordination, which is more common, all coordinators except the final one are ellipted, whereas in polysyndetic coordination, coordinators remain between each coordinate (Quirk et al. 1985, 926–927). According to Greenbaum, using a coordinator between each coordinate is considered redundant (1996, 234). Quirk et al. state that such use is therefore “reserved for stylistically marked effects,” such as emphasizing a specific semantic relation implied by a given conjunction (1985, 927).

Another two types of coordination can be distinguished based on the presence or absence of a linking word (Quirk et al. 1985, 918). The linking words used in coordination are termed “coordinating conjunctions” or simply “coordinators” (Biber et al. 1999, 79). When coordination is marked by the presence of a coordinator, it is called “syndetic,” whereas when no coordinator marks the relation, it is called “asyndetic” (Crystal 2008, 470). According to Quirk et al., asyndetic coordination is a form of “juxtaposition” (1985, 918). The term juxtaposition refers to the placing of constituents next to one another without an overt signal of their relation (Brown and Miller 2013, 246). Asyndetically coordinated clauses are usually separated by a comma, but other punctuation marks can be found, such as a dash or a semicolon

(Greenbaum 1996, 535-536). In spoken language, juxtaposed clauses are separated by a “tone unit boundary,” i.e. a variation in speech to mark separation (Quirk et al. 1985, 918). Since juxtaposition can occur in a variety of relations, the best test to discern whether a particular case of juxtaposition is asyndetic coordination is to see whether a coordinating conjunction can be inserted without a significant change in meaning (Quirk et al. 1985, 918).

A common feature of coordination, according to Biber et al., is ellipsis of identical elements found in both coordinates (1999, 156). For example, when the subject of a given pair of clauses is identical, it is common for the subject to be ellipsed in the second coordinate (Dušková et al. 1988, 589). This can be seen in the following example:

[2] Peter ate the fruit and drank the beer. (Quirk et al. 1985, 948)

This can be interpreted as an ellipsed version of the following sentence:

[3] Peter ate the fruit, and Peter/he drank the beer. (Quirk et al. 1985, 948)

However, not all grammarians would treat such sentences as coordination of clauses. In Huddleston and Pullum’s view, example [2] would be coordination of verb phrases (2002, 1334). Quirk et al. classify such sentences as coordination of predicates, while conceding the possibility of the elliptical interpretation (1985, 948). In their view, the two interpretations are not in competition, but instead provide complementary explanations (Quirk et al. 1985, 942). Similarly, ellipsis is common in cases of identical auxiliary verbs (Leech and Svartvik 1975, 203). Furthermore, in subordinate clause coordination, a shared subordinator or the infinitive particle “to” may be ellipsed in a second or subsequent coordinates (Quirk et al. 1985, 946). In this thesis, therefore, such cases will be treated as coordination of clauses with ellipsis.

Other forms of ellipsis are possible within coordinated structures. There are, in fact, several types of coordination that specifically make use of ellipsis. The umbrella term used by Huddleston and Pullum for them is “non-basic coordination,” which is contrasted with “basic coordination” (2002, 1336). Their category of non-basic coordination includes several types that are formed by reduction through ellipsis. The first of these types, which they term “gapped coordination” or simply “gapping,” involves reduction (through ellipsis of the verb or the verb and its complement) of one or more of the coordinate clauses that follow the first clause (Huddleston and Pullum 2002, 1337). Below is an example of a sentence that contains gapped coordination:

[4] The adults make these decisions in most households, but the kids ___ in ours.
(Huddleston and Pullum 2002, 1339)

The term itself, gapping, comes from the “gap” that is left in the clause which was reduced (Crystal 2008, 205). The gap is typically in medial position (Quirk et al. 1985, 974).

Another non-basic type of coordination is termed “right nonce-constituent coordination” (Huddleston and Pullum 2002, 1341). This type can be seen in the following example:

[5] Ted considered Kim too young and Pat too earnest. (Huddleston and Pullum 2002, 1341)

In linguistics, the term “nonce” refers to new formations used on a single occasion (Crystal 2008, 329). The reason Huddleston and Pullum use of the term “nonce-constituent” is the fact that the units involved are constituents only because they are the “bare coordinates” involved in the given coordinated structure, i.e. they are constituents only in that particular instance (2002, 1341).

For both types, Quirk et al. use the term “complex coordination,” which they define as coordination between groups of units, rather than single units, as is the case in “simple coordination” (1985, 973). In the examples above, the coordinated groups consist of a subject and an adverbial in example [4] and an object and its complement in example [5]. In Quirk et al.’s definition, the distinction between the two types is based on contiguity of the coordinated elements, which are contiguous in regular complex coordination (i.e. right nonce-constituent coordination), and non-contiguous in gapping (1985, 973–974).

In the above types, reduction occurs in the second or subsequent coordinates. It is also possible for it to occur in the first coordinate, as can be seen in the following example:

[6] He is, or was at any rate, a major composer. (Quirk et al. 1985, 967).

Huddleston and Pullum call this type “delayed right constituent coordination,” explaining it as the postponing the rightmost element in the initial coordinate until the very end of the coordinated structure (2002, 1343). Quirk et al. call it “interpolated coordination,” since, according to them, one of the coordinates is, as it were, inserted into the other (1985, 976). This type of coordination is used primarily in written language (Quirk et al. 1985, 977).

Quirk et al. describe one more unusual type, termed “appended coordination,” which, unlike the previous type, is more common in spoken language and is considered informal (1985, 975).

To illustrate the type, Quirk et al. give the following example:

[7] My mother plays badminton, and sometimes even tennis. (1985, 975)

Huddleston and Pullum regard such cases as phrasal coordination, with one of the coordinates expanded by modifiers (2002, 1336). Quirk et al., on the other hand, suggest that the second coordinate should be interpreted as an ellipted clause (1985, 975). This will be the approach taken in this thesis.

It should be noted that even the most basic forms of ellipted coordination may be interpreted as either clausal or subclausal coordination by different grammarians. In this thesis, however, such

cases are treated as ellipted clauses and are termed according to Huddleston and Pullum's terminology, with the addition Quirk et al.'s term "appended coordination."

2.1 Coordinators

While most grammarians agree on which conjunctions are clearly the central members of the category of coordinators, there is some disagreement when it comes to the less central members. To determine whether a conjunction belongs to the category, grammarians consider various criteria on the basis of which a scale can be formed from central to peripheral members. Two such lists of criteria will be consulted in this thesis in order to establish the common properties of coordinating conjunctions. Quirk et al. create a gradient from coordinators, through conjuncts, to subordinators, using the following criteria:

- (1) It is immobile in front of its clause.
- (2) A clause beginning with it is sequentially fixed in relation to the previous clause, and hence cannot be moved to a position in front of that clause.
- (3) It does not allow a conjunction to precede it.
- (4) It links not only clauses, but predicates and other clause constituents.
- (5) It can link subordinate clauses.
- (6) It can link more than two clauses, and when it does so, all but the final instance of the linking item can be omitted. (1985, 927)

Similar but not identical are the criteria of Huddleston and Pullum, whose properties of coordinators and the units they join are as follows:

- (a) Unlimited number of coordinates
- (b) Coordinates must be syntactically alike
- (c) Wide range of categories can be coordinated
- (d) Impossibility of fronting an expanded coordinate
- (e) Across the board application of syntactic processes
- (f) Only one coordinator per coordinate
- (g) Coordinators must occupy initial position (2002, 1289–1293)

The above criteria can be used to determine which conjunctions should be included in the category of coordinators. Criteria (1) and (g) mean that a coordinator must be in the initial position in any unit it coordinates. Quirk et al. state that this is common for both coordinators and subordinators, but it distinguishes them from most conjuncts (1985, 921). Furthermore, a

coordinating conjunction always belongs syntactically to the coordinate clause that is followed by it (Huddleston and Pullum 2002, 1277). Such a clause, therefore, has a fixed position and cannot be moved to the front of the sentence, as is stated in criteria (2) and (d). This distinguishes coordinators from most subordinators, in whose case such transformations are possible (Quirk 1985, 921). Criteria (3) and (f) mean that only one coordinator can appear in a given coordinate. Subordinating conjunctions and conjuncts, on the other hand, usually allow a preceding coordinating conjunction (Quirk 1985, 922).

The relation of coordination was previously defined as between two units of equal status, which is referred to in criterion (b). It is important at this point to elaborate on what is meant by equality of status between coordinates. In prototypical cases, it would mean both the equality of form and function (Huddleston and Pullum 2006, 201). In many cases, however, coordination occurs between units that are formally unlike one another (Quirk et al. 1985, 969). This requirement, therefore, need not always be met, as long as the coordinates are alike in their function (Huddleston 1988, 202). In such cases, the relation is termed "mixed coordination" by Huddleston and Pullum (2002, 1327). The same term will be used in this thesis.

Also related to syntactic likeness is criterion (e), which states that any syntactic process, such as relativization, applies to all of the coordinated units, which is not the case in subordination, where a process which applies to a subordinate clause does not apply to its superordinate clause, and vice versa (Huddleston and Pullum 2002, 1292). The rest of the criteria need no further elaboration.

Two conjunctions meet all the above criteria, namely "and" and "or." Grammarians generally recognize these as the two most central coordinating conjunctions. Quirk et al., in fact, reserve the term central coordinators specifically for these two conjunctions (1985, 920). The next clearest coordinator is "but," which is generally considered less central, as it fails to meet criteria (6) and (a), meaning it can only be used in binary coordination.

Besides the above three, grammarians differ in their inclusion of certain conjunctions, which, according to some, are still coordinators, if somewhat marginal, while according to others, they belong to a different category. Perhaps the most inclusive is Alexander, who counts among coordinators all of the following: "and," "or," "but," "for," "nor," "so," and "yet" (1988, 10). However, most other grammarians are more exclusive in their categorisations.

"Nor" is considered a clear coordinator by Huddleston and Pullum (2002, 1293). It is also included by Biber et al., who call it the "negative counterpart" to "or" (1999, 79). It is, however, more commonly classified otherwise. Similar to "nor" and sharing the same limitations are "yet" and "so," but neither of them is considered a coordinator in any of the grammars consulted

aside from Alexander. While Quirk et al. classify all three as conjuncts, they state that within the class of conjuncts, they bear the closest resemblance to coordinators and term them “semi-coordinators” (1985, 928). In this thesis, none of them are included in the category.

The conjunction “for” is included among coordinators by both Dušková et al. (1988, 303) and Haspelmath (2007, 1), but according to Huddleston and Pullum, it remains problematic in its classification (2002, 1321). Neither Quirk et al. nor Huddleston and Pullum include it among coordinating conjunctions. In this thesis, however, I opted to follow the classification of Dušková et al. and included it in the category.

To summarize, I will consider as central coordinators the three conjunctions “and,” “or,” and “but,” with the caveat that “but” is not as central as the other two. “For” is also included as a marginal coordinator.

2.1.1 Correlative coordinators

Coordinators may be combined with an “endorsing item” to form “correlative pairs” (Quirk et al. 1985, 920). Such pairs are called “correlative coordinators” or simply “correlatives” (Quirk et al. 1985, 935). Correlatives single out each coordinate and emphasize the particular meaning relation found in their non-correlative equivalents (Biber et al. 1999, 80). For this reason, correlative coordination can also be called “emphatic coordination,” according to Haspelmath (2007, 15).

The conjunctions “and” and “or” can be paired with “both” and “either” respectively (Alexander 1988, 11). Typically, the structure of each coordinate in correlative coordination is parallel, meaning that the endorsing item is in the same position in the first coordinate as the conjunction in the second (Dušková et al. 1988, 593). However, the position of the endorsing item can also vary. The aforementioned endorsing elements can be placed earlier, typically before a preposition or a determiner preceding the initial coordinate, or later, so that they lie within the coordinate (Huddleston and Pullum 2002, 1307). This becomes a requirement in the case of “both,” which, unlike “either,” cannot appear in the initial position in coordination of main clauses (Huddleston and Pullum 2002, 1306).

“Nor” forms a correlative pair with “neither” and is the negative equivalent of “both ... and” (Quirk et al. 1985, 938). The position of “neither” can vary in the same way as the previous endorsing items, however, like “both,” it cannot appear before a clause in main clause coordination (Huddleston and Pullum 2002, 1309). “Neither ... nor” is unique in the fact that when it coordinates clauses, the second clause contains inversion (Dušková et al. 1988, 593).

The conjunction “but” can form a correlative coordinator with “not” or “not only” (Huddleston 1988, 201). However, not all grammars classify it as such. Huddleston and Pullum acknowledge that the pair is comparable in its use to correlative coordinators, but they consider both “not” and “not only” to be modifiers of a given coordinate they appear in, not endorsing items in correlative coordination (2002, 1313–1314). Similarly, Quirk et al. do not classify “not (only) ... but” as clearly correlative, stating instead that they “resemble correlatives” (1985, 941). Dušková et al. (1988, 592), on the other hand, includes the pair among correlative coordinators, which is how it will be classified in this thesis.

Quirk et al. state that correlatives are traditionally restricted to binary coordination (1985, 939). However, according to Huddleston and Pullum, the restriction is not strictly maintained when it comes to “either ... or” and “neither ... nor,” which can be used in multiple coordination (2002, 1308). Although stating that such use is stigmatized, Quirk et al. acknowledge that correlatives are sometimes used in multiple coordination to avoid ambiguity in complex constructions (1985, 939).

2.1.2 The Meaning of Coordinators

The coordinators “and,” “or,” “but,” and “for” can, from the point of view of semantics, be described as creating the relations of “conjunctive,” “disjunctive,” “adversative,” and “causal” coordination respectively (Haspelmath 2007, 1–2). Of the four, “and” has the broadest range of use and possible meanings. From a purely logical standpoint, “and” conveys the following: if the full coordinated structure is true, it means that each coordinate must also be true (Quirk 1985, 930). This logical relation is termed “conjunction” (Huddleston and Pullum 2002, 1294). The core meaning of “and” is simply “addition” (Biber et al. 1999, 79). However, it can also convey a variety of other meanings. Quirk et al. term these meanings “connotative,” in order to emphasize that they are non-explicit and that more than one can be identified in a single occurrence (1985, 930). Aside from the already mentioned “addition,” they list seven other meanings. Firstly, in a coordination between two clauses, the second clause may be understood as “a consequence or a result” of first clause, with the understanding, that in such a case, the second clause is also “chronologically sequent” to the first, which is the second connotative meaning (Quirk et al. 1985, 930). Next, the first clause can be seen as a “condition of the second” or it can have “concessive force” in regard to it (Quirk et al. 1985, 931). Lastly, there are the connotative meanings where the second clause expresses “contrast” to the first clause, “makes a similar point” to it, or provides “an appended comment on or explanation of the first” (Quirk

et al. 1985, 931–932). Connotative meanings are not an intrinsic part of the conjunction, according to Huddleston, since they can also exist between clauses that are juxtaposed (1988, 197).

The coordinator “or,” at its core meaning, provides an alternative (Biber et al. 1999, 79). From a logical standpoint, “or” conveys that the full coordinate structure is true if at least one of the coordinates is true (Quirk et al. 1985, 932). The name for the logical relation is “disjunction” (Huddleston and Pullum 2002, 1294). However, while it is usually the case, “or” does not necessarily mean that only one of the coordinates joined by it in any given coordination can be true, as it is also possible for both or several coordinates to be true simultaneously (Quirk et al. 1985, 932). Because of this, a distinction can be made between the more common “exclusive” disjunction, where strictly one coordinate is true, and “inclusive” disjunction, where at least one, but possibly more coordinates are true (Haspelmath 2007, 26).

The conjunction “or” does not have as wide a variety of possible connotations as “and” does. Aside from its core meaning, the main connotative meaning it can imply is “condition,” as a compound sentence containing “or” can be interpreted as equivalent to a complex sentence with a negative conditional clause (Huddleston and Pullum 2002, 1303–1304). According to Quirk et al., another meaning of “or” may be “corrective,” when it introduces a coordinate which is a restatement of the coordinate to which it is joined (1985, 933).

The conjunction “but” expresses at its core meaning some form of contrast (Biber et al. 1999, 79). Unlike previous coordinators, it does not imply a variety of connotative meanings, but there are some differences in the specific forms of contrast it can express. According to Quirk et al., “but” either expresses a contrast between the expectations established by the initial coordinate and the information expressed by the second coordinate, or, when the initial coordinate is negative, the following coordinate introduced by “but” can be a positive repudiation of it (Quirk et al. 1985, 935). Additionally, Huddleston and Pullum (2002, 1312) mention the “preventative use of but,” in which the second coordinate prevents the fulfilment of a hypothetical scenario in the first coordinate, as illustrated by the following example:

[8] I would have gone, but I was too busy. (Huddleston and Pullum 2002, 1311)

Lacking alternative connotations, the marginal coordinator “for” expresses the cause of a preceding clause (Alexander 1988, 12). However, causative relations are, according to Dušková et al., more frequently expressed through subordination (1988, 591).

As mentioned previously, correlatives emphasize the meaning of the regular coordinators from which they are formed. They are usually limited to one of the possible meanings of the given conjunction, leaving out the other possible connotative meanings. In the case of “both ... and,”

the emphasized meaning is additive, preventing causative or temporally sequential connotations, and in the case of “either ... or,” the emphasis is on the exclusiveness of “or” (Quirk et al. 1985, 936). According to Huddleston and Pullum, “either ... or” may in some cases be interpreted inclusively as well, or, like its non-correlative equivalent, it may imply a conditional meaning (Huddleston and Pullum 2002, 1306–1307).

“Neither ... nor” was previously said to be the negative equivalent of “both ... and.” It shares the latter coordinator’s meaning of addition, without any other connotations (Quirk et al. 1985, 938). The core meaning of “not only ... but” is, according to Quirk et al., once again additive, but it can also be used with a repudiatory meaning or emphatically, particularly when the second coordinate is modified by an adverb such as “also” (1985, 941). Huddleston and Pullum state, that in such emphatic coordination, information in the first coordinate is generally backgrounded, while information in the second coordinate is highlighted (2002, 1315).

3 Subordination

3.1 Signals of subordination

Just as coordination can be marked by the presence of coordinators, subordination can be marked by some signal of subordination, which can have several forms.

Firstly, subordination can be marked by the presence of a “subordinating conjunction,” also termed a “subordinator” (Crystal 2008, 101). Carter and McCarthy (2006, 558) use the term subordinator for any class of words that introduce subordinate clauses. However, as used by other grammarians, the term refers only to subordinating conjunctions, which they differentiate from certain other markers of subordination, termed “wh-elements” by both Quirk et al. (1985, 997) and Greenbaum (1996, 327), and “wh-words” by Biber et al. (1999, 134). They include for example “who,” “what,” “which,” “where,” “when,” or “how” (Leech 1989, 528). The reason for their separate classification is the fact that unlike subordinating conjunctions, wh-words function not only as linking words, but also as clause elements within the subordinate clause (Biber et al. 1999, 135). In this thesis, while keeping the dual function of wh-words in mind, the term subordinator will be used as an umbrella term for all explicit markers of subordination. However, the term wh-words will still be used when referring to that specific group of subordinators.

Aside from “simple subordinators,” which consist of a single word, there are also “complex subordinators,” consisting of multiple words (Biber et al. 1999, 85). Although consisting of multiple words, complex subordinators nevertheless function as a single conjunction (Quirk and Greenbaum 1973, 313). According to Biber et al., most complex subordinators end in either “that” or “as” (1999, 85). The former types include for example “in that,” “so that,” or “except that,” while the latter include for example “as far as” or “as long as” (Quirk and Greenbaum 1973, 313). Most subordinators can be used in a variety of subordinate clauses. Each type of subordinate clauses nonetheless tends to have its own set of characteristic subordinators, which will be detailed along with the types of clauses they are commonly used in.

Subordination may also be signalled without the presence of an explicit marker. Non-finite and verbless clauses are signalled as subordinate by default, since only finite clauses can be main clauses, while in certain adverbial clauses, subordination may be signalled by subject–operator inversion (Quirk et al. 1985, 1006).

3.2 Types of subordinate clauses

Different types of subordinate clauses are generally distinguished in two ways: based on their structure and based on their function. Structural types of subordinate clauses are classified according to the structure of their verb phrase (Biber et al. 1999, 192). A verb phrase can be either “finite,” or expressing tense, person, number, and mood, or “non-finite,” or not expressing said features (Quirk et al. 1985, 149). Clauses can also lack a verb phrase altogether (Greenbaum 1996, 328). There are, therefore, three structural types of subordinate clauses: finite, non-finite, and verbless. Finite subordinate clauses regularly contain a subject and a subordinator (Biber et al. 1999, 193). Non-finite clauses, on the other hand, may contain a subject but can also be without a subject (Quirk et al. 1985, 993). They also often lack an explicit marker of subordination (Biber et al. 1999, 198). Because of their compactness, non-finite clauses are used for syntactic compression, especially in written language (Quirk et al. 1985, 995).

There are four types of non-finite clauses, namely bare infinitive, to-infinitive, -ing participle, and -ed participles clauses (Quirk et al. 1985, 993). Greenbaum and Nelson (1999, 111) and Quirk et al. (1985, 1004–1005) shorten the last two terms to simply “-ing clauses” and “-ed clauses,” which will be the terms used in this thesis. It should be noted, however, that some grammarians make a distinction between -ing participles and “gerunds,” with the former functioning similarly to adjectives, and the latter similarly to nouns (Crystal 2008, 351–352). Eastwood, for example, distinguishes between present participle and gerund clauses (1994, 319). Huddleston and Pullum use the term “gerund-participle,” while arguing that the traditional distinction between gerunds and present participles is an “unmotivated complication” and do not themselves make such distinction (2002, 1222). The terminological distinction between the two forms will not be used in this thesis. However, the two forms can still be distinguished based on the functional type of a given -ing clause.

Verbless clauses, as stated earlier, do not contain a verb phrase. They are nevertheless considered clauses because they can still be analysed in terms of other clause elements (Biber et al. 1999, 201). They can contain a subject but are often without it, although it can usually be recovered from the context of the sentence (Quirk et al. 1985, 996). According to Biber et al., in written language, the information in the verbless clause is commonly backgrounded, while in spoken language, the use of verbless clauses is restricted to “formulaic expressions” (1999, 201).

Aside from their structure, grammarians also classify subordinate clauses according to their function. Grammarians generally recognize the following four types of clauses: “nominal,” “adverbial,” “relative,” and “comparative” (Quirk et al. 1985, 104; Greenbaum 1996, 330). Both Alexander (1988, 29) and Dušková et al. (1988, 630) classify comparative clauses as a type of adverbial clauses, which is how they will be classified also in this thesis. Subordinate clauses will therefore be classified into three functional types: nominal, adverbial, and relative. Both finite and non-finite clauses may belong to all three functional types, while verbless clauses can belong to only one of them, as described later.

3.3 Nominal clauses

Nominal clauses are so named because they function similarly to noun phrases (Leech and Svartvik 1975, 277). Like noun phrases, nominal clauses can be subjects, objects, subject complements, appositives, and prepositional complements, but, unlike noun phrases, they can also function as adjectival complements (Quirk et al. 1985, 1047). The range of functions applies to the category as a whole, but, as there are several types of nominal clauses, the range of available functions may differ from one type of nominal clause to another. While most of the functions are quite clear, some of the functions perhaps call for elaboration.

When functioning as appositives, nominal clauses are postmodifiers of noun phrases (Quirk et al. 1985, 1244). What distinguishes them from other postmodifying clauses (i.e. relative clauses) is the fact that unlike those, appositives do not simply provide additional information about the noun phrase they modify, but are instead coreferential with it (Greenbaum 1996, 2018). Appositive clauses usually modify general abstract nouns (Quirk et al. 1985, 1260). Appositives are sometimes introduced by explicit markers such as “for example,” or “namely” (Greenbaum 1996, 231).

Prepositional complement clauses are, as the name suggests complements to a preposition, together with which they form a prepositional phrase. Such phrases can function as noun phrase postmodifiers, adverbials, prepositional verb complements, or adjectival complements (Quirk et al. 1985, 657). Aside from adjectival complementation by prepositional phrases, several types of nominal clauses can function directly as adjectival complements, without a need for a preposition (Quirk et al. 1985, 1220–1230). In verb complementation, prepositional complement clauses function as “prepositional objects” of monotransitive and ditransitive prepositional verbs, and as “prepositional object complements” in complex transitive complementation, following verbs with the preposition “as” (Quirk et al. 1985, 1177–1200). In

passive voice, according to Dušková et al., object complements of verbs with “as” complementation become subject complements (1988, 512).

Quirk et al. recognize six types of nominal clauses, namely “subordinate declarative clauses,” “subordinate interrogative clauses,” “subordinate exclamative clauses,” “nominal relative clauses,” “to-infinitive clauses,” and “-ing clauses” (1985, 1048–1049). The same types are recognized by Greenbaum (1996, 332–336), who subsumes the last two under nominal declarative clauses as their non-finite equivalents, which will also be done in the following chapter. Nominal relative clauses may alternatively be included among relative clauses. They are placed in the category of relative clauses by for example Dušková et al. (1988, 611). The reason for their categorization as nominal clauses by other grammarians is the fact that they too, like other nominal clauses, function in positions typical for nouns (Quirk et al. 1985, 1056). For this reason, they are also categorised as nominal clauses in this thesis.

3.3.1 Subordinate declarative clauses

Subordinate declarative clauses may function as subject, direct object, subject complement, appositive, or adjectival complement (Quirk et al. 1985, 1049). They are typically introduced by the subordinator “that” (Biber et al. 1999, 193). For this reason, they are also called “that-clauses” by Quirk et al. (1985, 1049), which is the term that will also be used in this thesis, along with the term subordinate declarative clauses.

According to Greenbaum, the subordinator in that-clauses can usually be omitted (1996, 333). Dušková et al. state that omission is common in informal speech, but does not occur in formal language (1988, 595). Furthermore, according to Quirk et al. omission is also common in that-clauses functioning as subjects, if those clauses are “extraposed” (1985, 1049). This means that the subject is moved from its initial position and replaced by an empty subject called “extrapositive it” (Crystal 2008, 182). According to Greenbaum, extraposition is common in that-clauses functioning as subjects (1996, 333). Besides subjects, extraposition is also common in object clauses, when they appear together with an object complement (Quirk et al. 1985, 1050).

Nominal to-infinitive clauses can function as subject, direct object, subject complement, appositive, and adjectival complement (Quirk et al. 1985, 1061). Nominal -ing clauses can have the same functions and can additionally function as prepositional complements (Quirk et al. 1985, 1063). When appositive, nominal -ing clauses typically complement the preposition “of,”

but can also directly follow the noun which they modify, without any preposition (Quirk et al. 1985, 1272). The following example illustrates such a case:

[9] I'm looking for a job driving cars. (Quirk et al. 1985, 1272)

Lastly, there are also bare infinitive nominal clauses, which are quite limited in their range of use, as they can only function as subject complements, and, in informal language, as subjects (Quirk et al. 1985, 1067).

3.3.2 Subordinate interrogative clauses

Subordinate interrogative clauses can be described as derived from questions (Alexander 1988, 15). They have the same range of functions as subordinate declarative clause, but unlike them, can also function as prepositional complements (Quirk et al. 1985, 1050). Structurally, they can be realized by finite clauses and to-infinitive clauses (Greenbaum 1996, 335).

There are three types of subordinate interrogative clauses, namely “wh-interrogative clauses,” “yes-no interrogative clauses,” and “alternative interrogative clauses” (Quirk et al. 1985, 1050–1053; Greenbaum 1996, 333). Wh-interrogative clauses are introduced by wh-words (Greenbaum 1996, 334). Semantically, wh-interrogative clauses closely resemble regular interrogative clauses (Quirk et al. 1985, 1051). However, they differ in their word order, since in subordinate interrogative clauses, there is no subject–operator inversion, unlike in main interrogative clauses (Dušková et al. 1988, 601). That being said, in non-standard dialects, the same inversion may be present even in subordinate interrogative clauses, according to Greenbaum (1996, 334). Additionally, Quirk et al. state that inversion may take place if the subordinate clause functions as a subject complement or an appositive (1985, 1051).

Yes-no interrogative clauses can be introduced by the wh-word “whether” or by the subordinating conjunction “if” (Biber et al. 1999, 690). “If” is more common in spoken language, according to Dušková et al. (1988, 603), and in informal styles, according to Quirk et al. (1985, 1053). Additionally, it is more restricted than “whether” in its use. Quirk et al. note that “if” has the following limitations: it can only be used in subject clauses if they are extraposed, it cannot be used in subject complement or appositive clauses, it cannot introduce infinitive clauses, and it cannot function as a prepositional complement (1985, 1054).

Alternative interrogative clauses contain either the correlative “whether ... or” or “if ... or” (Quirk et al. 1985, 1053). The conjunction “or” introduces an alternative in such clauses (Greenbaum 1996, 334). When one of the options is a negative equivalent of the other, it can simply be expressed by “or not” (Dušková et al. 1988, 604). In such sentences, “if” is once

again more limited, since “or not” can follow “whether” directly, but has to be moved to the end of the clause when used with “if” (Quirk et al. 1985, 1054).

3.3.3 Subordinate exclamative clauses

The functions of subordinate exclamative clauses are subject (in extraposition), direct object, or prepositional complement (Quirk et al. 1985, 1055) They are introduced by the subordinator “what,” which is followed by a noun phrase, or by “how,” which is followed by an adjective, an adverb, or a clause (Greenbaum and Quirk 1990, 309). Aside from their subordinating function, “what” also functions as a determiner, while “how” functions as an intensifier (Biber et al. 1999, 683).

3.3.4 Nominal relative clauses

According to Greenbaum, nominal relative clauses are also termed “independent relative clauses” and “free relative clauses” (1996, 336). Huddleston and Pullum use the term “fused relatives” (2002, 1068). In this thesis, however, only the term nominal relative clauses will be used.

Nominal relative clauses have a similar range of functions as those available to other nominal clauses (subject, direct object, subject complement, prepositional complement, appositive clause), however, unlike the other nominal clauses, they can also function as indirect objects and object complements (Quirk et al. 1985, 1058). They are introduced by wh-words, which can also take the suffix “-ever” to create words such as “whoever,” “whatever,” “whichever,” “wherever,” or “however.” Wh-words containing the suffix “-ever” express, according to Quirk et al., nonspecific meaning, whereas regular wh-words express specific meaning (1985, 1059). Non-finite nominal relative clauses have the form of to-infinitives (Greenbaum 1996, 336). They are more limited than their finite equivalents, since they can only function as subject complements or prepositional complements and cannot be introduced by ““which,” why,” or any of the nonspecific wh-words (Quirk et al. 1985, 1058). Nominal relative clauses may not be easy to distinguish from wh-interrogative clauses. The main difference between the two is that wh-interrogative clauses contain an information gap, represented by the wh-word, whereas no such gap exists in nominal relative clauses (Quirk et al. 1985, 1060).

3.4 Relative clauses

Relative clauses are the second major functional type of subordinate clauses. There are two types of relative clauses, aside from nominal relative clauses, which are categorised differently in this thesis. The two types are “adnominal relative clauses” and “sentential relative clauses” (Quirk et al. 1985, 1244). Relative clauses are introduced by *wh*-words, which refer to some “antecedent” in the matrix clause (Biber et al. 1999, 195). In the aforementioned nominal relative clauses, the antecedent is not in the matrix clause, but in the relative clause itself (Quirk et al. 1985, 1244). *Wh*-words introducing relative clauses are termed “relativizers” by Biber et al. (1999, 87–88), which is also how they will be termed in this thesis. Commonly, they are the relative pronouns “who,” “which,” and “that” (Dušková et al. 1988, 115). Occasionally, relative clauses may be introduced by adverbs such as “when” or “where,” used for time and place antecedents (Quirk et al. 1985, 1254). Aside from their function as subordinators, relativizers also function as clause elements within the relative clause. Their common roles are those of subjects, objects, prepositional complements, or adverbials (Quirk et al. 1985, 1248). Alternatively, Biber et al. use the term “gap” to refer to the missing clause element whose role is occupied by the relativizer (1999, 621).

Adnominal relative clauses postmodify noun phrases (Greenbaum 1996, 331). Their antecedent in the matrix clause is the head of the noun phrase they modify (Biber et al. 1999, 608). Adnominal relative clauses either modify their antecedent in a way that is necessary for its identification, in which case they are called “restrictive,” or they provide additional information, which is not necessary for its identification, in which case they are called “non-restrictive” (Dušková et al. 1988, 615). Restrictive relative clauses are also termed “defining” or “identifying,” while non-restrictive relative clauses are also termed “non-defining” or “non-identifying” (Alexander 1988, 16). Non-restrictive relative clauses are separated by commas in written language and by intonation in speech (Greenbaum 1996, 225). In restrictive relative clauses, unlike in non-restrictive, the relativizer “that” can be used (Leech 1989, 464). Furthermore, adnominal relative clause can be juxtaposed, meaning they contain no overt marker of subordination (Dušková et al. 1988, 616). Quirk et al. call such cases “zero relative” (1985, 1248). Zero relatives cannot be used in relative clauses where the subordinator also functions as the subject (Dušková et al. 1988, 617).

Sentential relative clauses are always non-restrictive (Greenbaum 1996, 229). They are introduced by the subordinator “which” (Dušková et al. 1988, 626). The antecedent to which

they refer can be the preceding predicate, clause, sentence or even a group of sentences (Quirk et al. 1985, 1118).

3.4.1 Non-finite relative clauses

Aside from relative clauses, noun phrases can also be postmodified by -ing clauses, -ed clauses, and to-infinitive clauses (Biber et al. 1999, 630). Such clauses tend to be classified as a form of modification separate from relative clauses. However, some grammarians regard postmodifying non-finite clauses as reduced relative clauses (Sag 1997, 471). Indeed, Quirk et al. (1985, 1269) note, that native English speakers generally see little difference between a relative clause and an equivalent postmodifying non-finite clause. In this thesis, non-finite clauses which postmodify noun phrases will, therefore, be regarded as reduced relative clauses.

3.5 Adverbial clauses

The central syntactic role of adverbials is modification of the verb (Crystal 2008, 14). Unlike nominal clauses or relative clauses, the class of adverbial clauses contains all of the structural types of clauses, i.e. finite, non-finite, and verbless (Greenbaum 1996, 337).

Adverbial clauses can have a variety of semantic roles. Although they generally agree when it comes to the major semantic categories of adverbials clauses, grammarians may differ when it comes to the overall number of categories or the way these are termed. A thorough overview is given by Greenbaum and Quirk, who list the following categories:

- a) time
- b) place
- c) condition, concession, and contrast
- d) exception
- e) reason
- f) purpose
- g) result
- h) similarity and comparison
- i) proportion (1990, 320–331)

The same categories will be used in this thesis. Below, each type is described in a more detail.

3.5.1 Clauses of time and place

Clauses of time convey a temporal relation between the subordinate and the matrix clause, which can be of three kinds. The content of the matrix clause may take place before, after, or at the same time as the subordinate clause (Quirk et al. 1985, 1080).

Clauses of time can be of any of the structural types of clauses (Greenbaum and Quirk 1990, 314). To-infinitive time clauses additionally blend temporal meaning with the meaning of outcome (Quirk et al. 1985, 1079). Common subordinators for temporal clauses include “after,” “as,” “before,” “once,” “since,” “till,” “until,” “when,” “whenever,” “while,” “whilst,” “as long as,” or “as soon as” (Quirk et al. 1985, 1078).

Time clauses may also imply other semantic relations beside temporal. For example, clauses with the subordinator “before” can imply conditional meaning, as well as the meaning of purpose or the meaning of result, which can also be expressed by clauses with the subordinator “until” (Quirk et al. 1985, 1061). Conditional relations can also be implied by “when” and “whenever,” which, along with “after,” may also imply causal relations (Quirk et al. 1985, 1085).

Clauses of place are primarily of two types, those referring to position and those referring to direction (Greenbaum 1996, 339). The main subordinators used to introduce clauses of place are “where” and “wherever,” the former expressing specific meaning, the latter non-specific meaning. (Quirk et al. 1985, 1087).

3.5.2 Clauses of condition, concession, and contrast

Greenbaum and Quirk state the reason for grouping the three types of clauses together is the fact that, in many aspects, they overlap (1990, 322). Since it is their classification that is followed in this thesis, they are grouped together here as well.

In adverbial clauses of condition, the subordinate clause expresses conditions or circumstances which are necessary for the fulfilment of the content of the matrix clause (Brown and Miller 2013, 14). The condition in such a clause is called a “direct” condition (Quirk et al. 1985, 1088). A condition may also be “indirect,” in which case it relates to the speech act rather than the context of the matrix clause (Greenbaum 1996, 340). The two types are illustrated in the examples below:

[10] If you don’t put the baby down, she won’t scream.

[11] She’s fart too considerate, if I may say so. (Quirk et al. 1985, 1089)

Example [10] shows a direct condition, while example [11] shows an indirect one. According to Quirk et al., clauses with direct conditions are more central than those with indirect ones (1985, 1088). Additionally, conditions can be either positive or negative (Biber et al. 1999, 779). Conditional clauses can have a variety of subordinators. The most frequent, as well as the most versatile is the subordinator “if,” which has as its negative counterpart the subordinator “unless,” which is the second most frequent subordinator in conditional clauses (Quirk et al. 1985, 1089). The two subordinators can be used in finite and non-finite (mainly -ed clauses), and verbless clauses (Quirk et al. 1985, 1090).

Aside from the above pair, conditional clauses can have a variety of complex subordinators, such as “as long as,” “assuming that,” “in the event that,” “on condition that,” which can only be used in finite clauses (Quirk et al. 1985, 1089).

Based on the possibility of the fulfilment of a given condition, two types of direct conditions are distinguished, namely “open” conditions and “hypothetical” conditions (Quirk et al. 1985, 1091). In hypothetical conditions, the content of the conditional clause is the reverse of reality, meaning it wasn’t or will not be realised, whereas in open condition, there is a possibility of its realisation (Dušková et al. 1988, 638).

In clauses of concession, information is introduced, which makes the matrix clause seem unexpected in some way (Quirk et al. 1985, 1098). The main subordinator introducing them is “although,” as well as its variant “though,” used in informal language (Greenbaum and Quirk 1990, 319). Among other subordinators that may introduce them are “whereas,” “while,” and “whilst,” with the last mainly used in British English (Quirk et al. 1985, 1097). The same subordinators also introduce clauses of contrast (Greenbaum and Quirk 1990, 321). Clauses of contrast are similar in their meaning to coordinated clauses with the conjunction “but” (Quirk et al. 1985, 1102).

3.5.3 Clauses of exception

Clauses of exception are somewhat related to conditional clauses, since their subordinators combine the meanings of exception and condition (Quirk et al. 1985, 1102). The most common subordinators introducing exception clauses are “except,” “except that,” and “but that,” which is more formal than the other two (Greenbaum and Quirk 1990, 321).

3.5.4 Clauses of reason

Adverbial clauses may convey the meaning of reason in a variety of ways. According to Greenbaum, the reason expressed can be “indirect, related to the speech act or the belief of the speaker (1996, 343). Because of this variety, the categorisation of Quirk et al. includes four distinct types, which can express:

- 1) Cause and effect
- 2) Reason and consequence
- 3) Motivation and result
- 4) Circumstances and consequence (1985, 1103–1104)

The four types, in their respective order, are illustrated in the examples below:

- [12] He’s thin because he hasn’t eaten enough.
- [13] She watered the flowers because they were dry.
- [14] You’ll help me because you’re my friend.
- [15] Since the weather has improved, the game will be held as planned. (Greenbaum and Quirk 1990, 322)

Although distinct, the four types are nonetheless related by the similarity of the relation between the adverbial clauses and their matrix clauses, which is why they are classified under a single umbrella term of reason clauses. The four types include the following meaning relations: Type 1) includes those sentences in which the subordinate clause expresses the objective cause of the effect observable in the matrix clause (Quirk et al. 1985, 1103). In type 2), on the other hand, the connection between the clauses is an inference of the author of the given sentence or utterance, meaning that he or she assumes a reason in the subordinate clause for the consequence in the matrix clause (Quirk et al. 1985, 1104). In type 3), the subordinate clause expresses the motivation of an animate agent for the result in the matrix clause (Quirk et al. 1985, 1104). In type 4) sentences, the meanings of reason and condition are combined, so that the subordinate clause expresses a kind of condition, and the matrix clause a consequence that is subject to it (Quirk et al. 1985, 1104).

Clauses of reason are introduced by the subordinators “because,” “as,” or “since” (Brown and Miller 2013, 15). Aside from finite clauses, they can be -ing clauses, -ed clauses, and to-infinitives (Quirk et al. 1985, 1105–1106).

3.5.5 Clauses of purpose

As the name suggests, these clauses express the meaning of purpose, or intention (Brown and Miller 2013, 15). Unlike in the previous types, they are more commonly non-finite than finite, with to-infinitives being their typical form (Quirk et al. 1985, 1107). Infinitival purpose clauses are usually without a subordinator, however, they can also be introduced by the subordinators “in order to,” or “as to” (Greenbaum 1996, 344). Finite clauses of purpose are introduced by the subordinators “so that,” “in order that,” which is more formal, or “so,” which is less formal (Quirk et al. 1985, 1107).

3.5.6 Clauses of result

Clauses of result express the result or consequence of the content of the matrix clause (Brown and Miller 2013, 15). Like finite clauses of purpose, they are introduced by the subordinators “so,” or “so that,” however, unlike them, they do not require a modal auxiliary (Greenbaum and Quirk 1990, 330). Although they are typically finite, Quirk et al. notes that they are closely related to temporally functioning to-infinitive clauses that also express an outcome (1985, 1079).

3.5.7 Clauses of similarity, comparison, proportion, and preference

The four types are grouped together, being quite similar, in that they all express some form of comparison. Clauses of similarity are introduced by the subordinators “as” and “like,” the latter being informal and more common in American English (Quirk et al. 1985, 1110). Clauses with the subordinator “as,” when they appear initially in the sentence, may form a correlative pair with “so” in the matrix clause in clauses of proportion (Greenbaum 1996, 345). The correlative “so” is considered formal and is more common in literary style (Quirk et al. 1985, 1110). Clauses of proportion may additionally be introduced by the correlative subordinator “the ... the” or the noncorrelative “the,” as shown in the following examples:

[16] The more she thought about it, the less she liked it.

[17] She liked it less, the more she thought about it. (Greenbaum and Quirk 1990, 325)

Clauses with the correlative “the ... the” can also be verbless (Greenbaum 1996, 345).

Clauses of comparison can be introduced by the subordinators “as if,” “as though,” and also “like,” which is more common in informal American English (Greenbaum and Quirk 1990, 324). They allow all the structural types of subordinate clauses (Quirk et al. 1985, 1110).

Clauses of preference, on the other hand, are commonly in the form of to-infinitive clauses, with their main subordinators being “rather than” and “sooner than” (Quirk et al. 1985, 1111).

3.5.8 Other semantic roles

Non-finite and verbless adverbial clauses can appear without a subordinator, in which case it may not be easy to identify their semantic role. According to Quirk et al., such clauses may express various relations depending on the context in which they appear (1985, 1124). Biber et al. suggest that instead of trying to specify the role of such clauses, they may be characterized as expressing the circumstance of the content of a given superordinate clause (1999, 820). Such clauses are therefore classified as clauses of circumstance in this thesis. Additionally classified as circumstantial are clauses introduced by the subordinator “with” (Quirk et al. 1985, 1105). In some clauses with no subordinator, there is no such ambiguity, as the verb itself can suggest a semantic relation without a need for a subordinator, such as in the case of the verb “using,” which is typical for adverbials of instrument (Quirk et al. 1985, 482).

The adverbial clauses described so far belonged mostly to the grammatical category of “adjuncts,” which convey the “circumstance of the situation in the matrix clause” (Quirk et al. 1985, 1070). Adverbial clauses belonging to grammatical categories other than adjuncts are relatively rare, according to Quirk et al. (1985, 1068). However, according to Biber et al., particularly common in academic discourse are “linking adverbials” (1999, 880). Quirk et al. (1985, 631) refer to linking adverbials as “conjuncts,” a term which will also be used in this thesis. The function of conjuncts is to express logical relations between clauses or sentences (Greenbaum 1996, 146) The main semantic relations expressed by them include addition, enumeration, summation, apposition, or transition (Biber et al. 1999, 765). As clauses, conjuncts often have the form of to-infinitives or are otherwise limited to stereotyped expressions (Quirk et al. 1985, 1069).

4 Analysis

The practical part of the thesis aims to analyse the use of coordination and subordination of clauses in the context of academic discourse, using the theoretical framework established in the preceding section. The grammatical devices will be analysed both in terms of the frequency and the effect of their use.

The analysis begins with a comparison of the distribution of each device, focusing both on their separate and their combined use. Each device is then examined in more detail. Firstly, coordination is analysed according to the particular type used and the coordinating conjunctions used. Then, the use of subordination is analysed with regard to the structure of subordinate clauses found in the corpus and the functional types they belong to.

The corpus was compiled from authentic academic texts taken from the website of *Scientific Research Publishing* (or *SCIRP*). *SCIRP* is an online academic publisher, offering open access journal articles from a wide variety of academic fields. The corpus consists of 200 occurrences in total, which were collected from 8 articles. From each article, the first 25 occurrences of either coordination or subordination were taken. In the corpus itself, each occurrence is listed underneath the sentence in which it appears. The occurrences are not listed hierarchically, but according to the order of their appearance when the sentence is read from start to finish. For example, in a sentence consisting of two coordinated main clauses, each of which contains additional subordinate clauses, the subordinate clauses in the first coordinate are described first, then the coordination itself, followed by the description of the subordinate clauses in the second coordinate. In several articles, the last sentence collected contains occurrences of either coordination or subordination above the limit chosen for each article. In such instances, only occurrences up to the total number of twenty-five per article are described.

4.1 Distribution of coordination and subordination

As was expected, the devices of coordination and subordination were not evenly represented in the corpus. Of the total 200 occurrences, far greater proportion was occupied by subordination, which appeared 172 times, or in 86% of all cases. Coordination on the other hand only appeared 28 times, or in 14% of cases.

Table 1 – Coordination vs. subordination of clauses

| Structure | Occurrences | Percentage |
|-----------|-------------|------------|
|-----------|-------------|------------|

| | | |
|---------------|-----|-----|
| coordination | 28 | 14% |
| subordination | 172 | 86% |

While in certain registers, the opposite may be true, in academic discourse, subordination is clearly the more prevalent of the two devices. However, simply dividing the two devices by their total number of occurrences might falsely suggest separateness of the use of each device. Yet this is not the case, particularly in the case of coordination, which appeared more frequently between subordinate clauses than it did between main clauses, as is shown in the table below:

Table 2 – Coordination of main vs. subordinate clauses

| Clauses | Occurrences | Percentage |
|--------------------|--------------------|-------------------|
| main | 12 | 42,9% |
| subordinate | 16 | 57,1% |
| nominal | 9 | 32,1% |
| relative | 2 | 7,1% |
| adverbial | 5 | 17,9% |

Out of the total 28 occurrences, 12 were between main clauses, while coordination between subordinate clauses appeared 14 times, with the remaining 2 instances being those of mixed coordination, i.e. coordination between a subordinate clause and a subclausal unit at the same level of constituency. Of the instances of subordinate clause coordination, 9 were between nominal clauses (with 2 cases of mixed coordination), 2 were between relative clauses, and 5 were between adverbial clauses. Moreover, within the 12 cases of main clause coordination, only in 4 instances (1.1.i, 1.13.i, 3.3.i, and 4.7.i) was there no subordinate clause in either of the coordinated clauses. Even in the case of main clause coordination, therefore, coordination appeared more frequently along with subordination than it did without it. Naturally, as the number of instances of subordination was much higher than the number of instances of coordination, subordination appeared more frequently by itself.

4.2 Coordination

Table 3 – Syndetic vs. asyndetic coordination

| Coordination | Occurrences | Percentage |
|---------------------|--------------------|-------------------|
|---------------------|--------------------|-------------------|

| | | |
|-----------|----|-------|
| syndetic | 26 | 92,9% |
| asyndetic | 2 | 7,1% |

Most of the coordinated clauses were coordinated syndetically, with only 2 cases of asyndetic coordination found in the corpus. Perhaps surprisingly, in both cases of asyndetic coordination, the clauses were not separated by a comma, but by a different punctuation mark. In the case of 1.13.i, the clauses are separated by a dash, while in the case of 2.4.i, they were separated by a semicolon. The main reason for the use of a semicolon in 2.4.i seems to be the fact that the initial main clause is followed by an adverbial clause which is subordinate to the second main clause in the sentence. The use of a semicolon then clearly separates the adverbial clause from the initial main clause, while at the same time marking the connection between the two main clauses. The dash used in 1.13.i marks the second clause as an elaboration upon the information in the first clause.

Table 4 – Binary vs. multiple coordination

| Coordination | Occurrences | Percentage |
|---------------------|--------------------|-------------------|
| binary | 24 | 85,7% |
| multiple | 4 | 14,3% |

Coordination occurred most frequently between two coordinates, with only 4 instances of multiple coordination. Of those 4 instances, 3 were simple-syndetic (1.6.i, 3.2.i, and 3.9.i), with all but the last instance of the coordinator omitted, while 1 was polysyndetic (4.3.i), with coordinators between each coordinate. Furthermore, 4.3.i may be analysed as a case of layered coordination, with clauses 4.3.c. and 4.3.d. being jointly coordinated with 4.3.b.

4.2.1 Ellipsis in coordination

In all instances of coordination, in which the coordinated clauses shared the same overt subject, the subject was ellipsed in the second or subsequent clauses (1.2.i, 1.3.i, 3.2.i, and 3.9.i). Additionally, in all cases where the two coordinates shared the same auxiliary verb (namely in 6.5.i, 6.11.i, and 7.12.i), the auxiliary verb was ellipsed in the second coordinate. The same was true for the infinitive particle “to,” which was ellipsed in second coordinates in coordinated to-infinitive clauses (2.5.i and 5.2.i). Such cases confirm that ellipsis of the aforementioned

elements is indeed common in cases where they are identical in each coordinate, as was stated in chapter 2.

Of the non-basic types of coordination outlined in chapter 2.2, four instances appeared in the corpus. Three of the instances were those of delayed right constituent coordination, namely 2.2.i, 2.6.i, and 8.6.i. These are once again results of omission of shared elements, which in their case occurs in the first rather than the second or subsequent coordinates.

Lastly, appended coordination appeared in 1.7.i. As mentioned in chapter 2.2, this type of coordination is usually found in speech. The fact that it appeared at all is rather surprising and can at any rate be considered highly unusual for academic discourse.

4.2.2 Use of coordinators

Table 5 – Use of coordinators

| Coordinator | Occurrences | Percentage |
|--------------------|--------------------|-------------------|
| and | 20 | 77% |
| or | 3 | 11,5% |
| but | 3 | 11,5% |

The majority of the coordinated clauses were joined with the use of the coordinator “and,” which appeared in 20 instances, constituting 77% of all coordinators used. Its high occurrence is not surprising given the conjunction’s versatility. It is also in accordance with the findings of Biber et al., which show that “and” is the most frequent coordinator generally found across all discourse types, as well as specifically found in academic discourse (1999, 81). The use of “or” and “but” was much less frequent, each appearing in only 3 instances (11,5%). The marginal coordinator “for” did not appear in a single instance. This is perhaps because, as stated in chapter 2.1.2, causal relations in which it is used are more frequently expressed by subordinate clauses. Another reason might be the fact that “for” is somewhat archaic and therefore not suitable for contemporary academic discourse.

Notably, there were no instances of correlative coordinators in any of the cases of clausal coordination. While beyond the scope of the topic of the thesis, it is worth noting that correlative coordinators do appear in the corpus in several instances of phrasal coordination. The findings therefore do not fully represent the frequency of use of correlative coordinators but instead suggest that they more commonly appear in subclausal, rather than clausal coordination. Similarly, if subclausal coordination was taken into account in the case of the three core

coordinators, the rate of occurrence of “or” would be higher than that of “but” and the occurrence of “and” would exceed the two by a far greater margin.

The coordinator “and” was used in the corpus in a variety of semantic relations. In some cases, these relations were made explicit with the use of adverbials. In 1.3.i the second clause is marked as chronologically sequent to the first by “then,” and in 5.6.i by “later.” In 1.1.i, the second clause is marked as a result of the first by “as a result.” In all other occurrences of “and,” the semantic relations between the coordinated clauses were not explicitly marked but were instead merely connotative. The most frequent connotative meaning was that of result, which, in addition to the aforementioned 1.1.i, appeared in 8 instances (e.g. 2.5.i, 2.6.i, or 4.3.i). The relation appeared in sentences such as the following example:

[18] Moreover, treatments help ^a|to restore the compromised skin barrier function
^b|commonly observed in AD patients| by ^c|delivering essential lipids ^d|and
enhancing skin hydration|. (6.10)

Despite no explicit marker of the semantic relation present, clause 6.10.d. can clearly be understood as the result of clause 6.10.c. Interestingly enough, the coordinator “and” with the connotative meaning of result appeared more frequently than adverbial clauses of result, suggesting that such meaning is more frequently expressed by coordination, than it is by subordination in academic discourse.

The relation expressed by “and” could be understood as conditional. This connotative meaning appeared in sentences such as:

[19] ^a|Overcoming these systemic barriers ^b|and providing accessible, confidential, and
effective mental health services| is crucial for |supporting the overall well-being,
resilience, and readiness of U.S. military personnel|. (2.9)

In the above example, clause 2.9.a. can be understood as a condition for clause 2.9.b. Conditional connotation also appears in 7.12.i. Alternatively, both examples could also be interpreted as having the connotative relation of result expressed in the second clause.

In its core meaning of addition, “and” appeared in sentences such as 1.6.i or 3.2.i. In total, the coordinator appeared with this meaning in 7 instances. Lacking the range of connotative meanings available to “and,” both “or” and “but” appeared in their core meanings without further connotations in all their instances in the corpus.

4.3 Subordination

Table 6 – Functional types of subordinate clauses

| Form | Occurrences | Percentage |
|-------------|--------------------|-------------------|
| nominal | 62 | 36,1% |
| relative | 64 | 37,2% |
| adverbial | 46 | 26,7% |

In the case of different functional types of subordinate clauses, the occurrence of nominal and relative clauses was fairly balanced in the corpus, with sixty-two occurrences (or 36,1% of all subordinate clauses) of the former and sixty-four occurrences (37,2%) of the latter type. Adverbial clauses appeared less frequently, with forty-six occurrences (26,7%) found in the corpus.

Similarly to the way that coordination and subordination co-occurred, the use of different types of subordinate clauses was also combined, with many sentences in the corpus containing more than one type. In this way, subordination can be used to create sentences of high complexity, such as 2.6 in which 8 clauses in total can be found, or sentence 5.6, consisting of 9 clauses. Such intricate use of subordinate clauses as can be seen in the two examples is emblematic of the propensity for high information density in academic discourse.

4.3.1 Nominal clauses

Table 7 – Types of nominal clauses

| Nominal clauses | Occurrences | Percentage |
|---------------------------|--------------------|-------------------|
| finite | 18 | 29% |
| that-clauses | 13 | 21% |
| wh-interrogative | 2 | 3,2% |
| yes-no interrogative | 1 | 1,6% |
| alternative interrogative | 2 | 3,2% |
| non-finite | 44 | 71% |
| to-infinitive | 16 | 25,8% |
| -ing clauses | 28 | 45,2% |

Non-finite nominal clauses were used far more frequently than finite nominal clauses. The most frequently occurring type were nominal -ing clauses, appearing in 28 instances and constituting

45,2% of all nominal clauses found in the corpus. Nominal to-infinitive clause appeared in 16 occurrences, constituting 25,8%. Of finite types, nominal declarative clauses were the most frequently occurring, appearing 13 times and constituting 21% of all nominal clauses. Lastly, there were 5 nominal interrogative clauses: 2 wh-interrogative, 2 alternative interrogative (3,2% each), and a single yes-no interrogative clause (1,6%). Neither nominal exclamative nor nominal relative clauses appeared in the corpus. Nominal clauses are further broken down according to their syntactic function in the table below:

Table 8 – Nominal clauses according to their syntactic function

| Syntactic function | Occurrences | Percentage |
|--------------------------|-------------|------------|
| subject | 8 | 12,9% |
| object | 19 | 30,7% |
| subject complement | 3 | 4,8% |
| appositive | 11 | 17,7% |
| adjectival complement | 1 | 1,6% |
| prepositional complement | 20 | 32,3% |

The most frequent syntactic function of nominal clauses was that of prepositional complements. All of the prepositional complement clauses were -ing clauses, and their functions were evenly distributed. Five of the prepositional complement clauses figured in noun phrase postmodification, five of them in adjectival complementation, another five in verb complementation, and the last five were part of adverbial phrases.

Prepositional complements figuring in noun phrase postmodification included such clauses as the following example:

[20] The U.S. military plays a vital role in ^a*defending the nation's security and interests*], both at home and abroad. (2.1)

Aside from the above example, clauses used in this manner include 3.8.b, 4.10.b, 4.11.c, and 5.6.b.

Prepositional complements figured in adjectival complementation in clauses 3.1.c, 3.6.a, 3.8.a, 6.3.a, and 7.14.b. Aside from those, there was a single clause complementing an adjective directly without a preposition, namely 4.8.b.

The prepositional complement clauses figuring in verb complementation included 2.6.b and clauses 2.6.e and 2.6.f from the following example:

[21] Factors such as the perceived stigma ^a|*associated with* ^b|*seeking mental health care*|, concerns about the potential negative impact on military careers and confidentiality, and difficulties ^c|*integrating care across the military and civilian health care systems*| are just a few of the complex factors ^d|*that can hinder service members from* ^e|*seeking* ^f|*and receiving the mental health support* ^g|*they desperately require*|. (2.6)

All three examples function as prepositional objects of ditransitive prepositional verbs. Clause 7.5.b also functions as such. The last clause belonging to this group was 8.5.a, functioning as a complement to a complex transitive prepositional verb and could be classified as a prepositional object complement. However, as stated in chapter 3.3, such object complements become subject complements when the verb is in passive voice. Clause 8.5 may therefore be considered a subject complement.

The remaining five clauses function as prepositional complements in adverbial phrases, which had the following semantic roles: Clause 5.4.b is part of a “by-phrase” expressing the agent of the action expressed by the passive verb. Clause 5.6.h and the coordinated clauses 6.10.c and 6.10.d are also complements to the preposition “by.” However, they do not express agency but are instead parts of adverbial phrases of means. The last clause, 8.11.a, is part of a conjunct phrase of addition, which marks the information in the matrix clause as being additional to the information given by the conjunct.

The second most frequent syntactic function of nominal clauses was that of objects. Object clauses most commonly appeared in the form of nominal declarative clauses (that-clauses), which constituted 10 of the total 19 instances (e.g. 1.4.a or 4.2.a). The second most common form were to-infinitive clauses, constituting 5 instances (e.g. 4.10.a or 6.10.a). The remaining 4 instances consisted of 2 wh-interrogative clauses (1.5.a and 4.11.b), 1 yes-no interrogative clause (1.8.a), and 1 nominal -ing clause (4.9.a). Frequently, objects were used to report research results (e.g. 1.4.a, 1.7.a, 2.7.a, 4.2.a, or 4.3.a) or research aims (1.5.a, 1.8.a, 4.10.a, and 4.11.b), suggesting that this is their main function in the context of academic discourse.

The third most common function of nominal clauses was apposition. Functioning as appositives were 6 to-infinitive clauses, 3 -ing clauses, 1 nominal declarative, and 1 nominal interrogative clause. Appositive clauses modified general nouns such as “opportunity” (7.4.a, 8.9.d) “ability” (2.5.b), or “potential” (5.1.b). Additionally, appositives were used to exemplify their head nouns (1.6.a, 2.2.a and 2.2.b).

Of the remaining functions, there were 8 subject clauses. The most common subject clauses were nominal -ing clauses, appearing in 4 instances, namely 2.9.a, 3.1.a, 3.7.a, and 8.9.b (clause

2.9.b is not counted because it is beyond the limit of occurrences per article). Subject to-infinitive clauses appeared in 3 instances, each time in extraposition, as is typical for infinitives (3.7.d, 7.1.i, 8.11.c). The last subject clause was an alternative interrogative clause (3.5.a). Lastly, there were 3 subject complement clauses, 2 of which were nominal to-infinitive clauses (8.6.b and 8.6.c) with 1 being a nominal declarative clause (8.8.a).

Nominal clauses constituted the highest proportion of coordinated subordinate clauses, with 9 occurrences in total, including 2 instances of mixed coordination. The two cases of mixed coordination involved an appositive nominal interrogative clause coordinated with noun phrases in apposition, in the case of 1.6.i, and a nominal -ing clause coordinated with a noun phrase, both as prepositional complements modifying the preceding noun phrase, in 4.10.i. The reason why these different units can be coordinated is the fact that, as stated in chapter 2.3, it is possible to coordinate units which differ in form as long as they have the same syntactic function. Nominal clauses could therefore be coordinated with noun phrases in any of the possible syntactic functions they share.

The most commonly coordinated nominal clauses were -ing clauses, coordinated in 5 instances, not counting the previous mentioned mixed coordination in 4.10.i. In terms of function, they represent different examples in apposition in 2.2.i. In 2.6.i, they were coordinated prepositional objects, in 2.9.i they functioned as subjects, and in 6.10.i they were part of an adverbial phrase. Coordinated nominal to-infinitive clauses functioned as subject complements in 8.6.i, whose coordination seems rather redundant as the two coordinates are virtually synonymous. In 2.5.i, the coordinated infinitives were in apposition to “ability.” Lastly, there was the case of appended coordination in 1.7.i, where the coordinated clauses functioned as objects.

4.3.2 Relative clauses

Table 9 – Types of relative clauses

| Relative clauses | Occurrences | Percentage |
|-------------------------|--------------------|-------------------|
| finite | 34 | 53,1% |
| adnominal | 34 | 53,1% |
| non-finite | 30 | 46,9% |
| -ing clause | 10 | 15,6% |
| -ed clauses | 19 | 29,7% |

| | | |
|---------------|---|------|
| to-infinitive | 1 | 1,6% |
|---------------|---|------|

Unlike in the case of nominal clauses, relative clauses appeared more frequently in finite form. All of the finite relative clauses found in the corpus were adnominal relative clauses. Appearing 34 times, they constituted 53,1% of all relative clauses. Altogether absent from the corpus were sentential relative clauses.

Non-finite relative clauses were less frequent, although only by a narrow margin. The most common non-finite form were -ed clauses, which constituted 19 instances (29,7%). Relative -ing clauses constituted 10 instances (15,6%). Only 1 to-infinitive clause was relative (1,6%).

Relative clauses were the least frequently coordinated type of subordinate clauses, constituting only 2 cases of subordinate clause coordination (6.5.i. and 7.12.i)

Table 10 – Restrictive vs non-restrictive relative clauses

| Relative clauses | Occurrences | Percentage |
|-------------------------|--------------------|-------------------|
| restrictive | 48 | 75% |
| non-restrictive | 14 | 25% |

Restrictive relative clauses, constituting 75% of all instances of relative clauses, were substantially more common than non-restrictive relative clauses, which constituted 25% of all instances. This means that the majority of relative clauses were used to provide information which was essential for the identification of the noun phrase antecedent in the matrix clause. The higher rate of occurrence of restrictive relative clauses coincides with the findings of Biber et al. (1999, 603), although, in their findings, the proportion of restrictive clauses was even higher, constituting 85%. Conversely, in their findings, non-restrictive clauses constituted only 15%.

While not essential for the identification of the antecedent in the matrix clause, the information provided by most non-restrictive relative clauses was by no means secondary in its relevance. Even though there were certain cases, such as 8.1.a, in which the non-restrictive clause could be considered merely tangential to the sentence, in many cases, the information provided by non-restrictive relative clauses was no less important to the text as a whole than the information in the matrix clause. However, since information given by subordinate clauses is backgrounded, according to Quirk et al. (1985, 919), the information was most likely presumed by the authors to be known to any person familiar with the particular field of study.

Table 11 – The use of relativizers in finite relative clauses

| Relativizer | Occurrences | Percentage |
|--------------------|--------------------|-------------------|
| that | 20 | 58,8% |
| which | 7 | 20,6% |
| who | 1 | 2,9% |
| zero relative | 6 | 17,7% |

Only 4 types of relativizers appeared in the corpus. The most frequently used relativizer was “that,” occurring 20 times, or in 58,8% of all finite relative clauses, with the next most common relativizer being “which,” occurring 7 times (20,6%). Additionally, there was a single instance of “who” (2,9%). The rest of the finite relative clauses were zero relative clauses, numbering 6 occurrences (17.7%).

This result coincides with the findings of Biber et al. (1999, 609), which show that the four are the most common types of relativizers. However, the proportion of each relativizer differs from their findings, which show the relativizer “which” as by far the most common one in academic discourse (Biber et al. 1999, 611). Since “that” is, according to the same findings, more common than “which” in spoken language and in fiction, the higher rate of its occurrence in the corpus of this thesis might suggest a trend towards a lesser degree of formality in academic discourse since the time of the publication of their findings.

The low occurrence of relativizers such as “who” (found only in 6.7.a) suggests that in academic discourse, relative clauses are not often used to describe people, but are instead used to elaborate on the concepts or entities relevant to the given field. The particular academic field of each article may be of relevance here, since those disciplines that have people as their subject of study might exhibit a higher frequency of use of personal relativizers.

The single instance of relativizer “who” as well as all instances of the relativizer “which” were found in the function of subjects. This was also mostly the case for the relativizer “that,” which served the subject function in all but one instance, namely 1.14.b, where it served as an object. In the case of the zero relatives, four were in the object function (2.6.g, 3.5.b, 3.6.b, and 8.11.b), with the remaining two (5.1.c and 5.8.b) found in in the function of adverbials.

4.3.3 Adverbial clauses

In the case of adverbial clauses, non-finite clauses once again appeared more frequently than finite clauses, as was the case with nominal clauses, although the proportion of non-finite adverbial clauses was smaller than it that type. As no verbless clauses appeared in the corpus, they may be considered rare in this type of discourse. The proportion of each of the structural types of adverbial clauses can be seen in the table below:

Table 12 – Adverbial clauses according to their structure

| Adverbial clauses | Occurrences | Percentage |
|--------------------------|--------------------|-------------------|
| finite | 17 | 36,96% |
| non-finite | 29 | 63,04% |
| -ing clauses | 19 | 41,3% |
| -ed clauses | 1 | 2,17% |
| to-infinitive clauses | 9 | 19,57% |

The higher proportion of non-finite clauses, as opposed to finite clauses, is surprising, because it is at odds with Biber et al.'s findings, according to which, finite adverbial clauses are twice as frequent as non-finite adverbial clauses (1999, 768). These differences perhaps again indicate the growing tendency for the use of these forms in academic discourse since the time of Biber et al.'s findings. Alternatively, the corpus of this thesis may be too limited in scope to accurately represent the general use of said forms, which would perhaps be closer to Biber et al.'s findings, if analysed in a corpus of equivalent size.

Table 13 – Semantic role of adjunct clauses

| Semantic role | Occurrences | Percentage |
|----------------------|--------------------|-------------------|
| time | 10 | 22,2% |
| place | 2 | 4,4% |
| instrument | 2 | 4,4% |
| reason | 9 | 20% |
| purpose | 8 | 17,9% |
| result | 4 | 8,9% |

| | | |
|--------------|----|-------|
| circumstance | 10 | 22,2% |
|--------------|----|-------|

The vast majority of adverbial clauses were adjuncts, constituting 45 of the total 46 adverbial clauses, or 97,8%. The remaining clause, namely 7.11.a, was a conjunct, which marked its matrix clause as an exemplification of the preceding sentence. The two most frequent semantic types of adjunct clauses were those belonging to the categories of time and circumstance, each of which appeared 10 times (22,2%). The next most frequent were clauses of reason, which constituted 9 instances (20%), followed by clauses of purpose, constituting 8 instances (17,9%). Lastly, there were 4 instances of result clauses (8,9%), 2 instances of place clauses (4,4%), and 2 instances of instrument clauses (4,4%).

In clauses of time, the most common subordinator was the conjunction “when,” occurring 5 times (1.9.a, 1.9.b, 1.9.c, 5.6.e, and 5.6.g), each time introducing a finite clause. In the clauses in 1.9, “when” combines the time meaning with conditional meaning and indeed could be replaced by a conditional subordinator without a significant change in meaning. In 5.6.e and 5.6.g, it indicates simultaneity of the subordinate and the matrix clause. The next most common subordinator for time clauses was “while,” appearing 3 times (4.8.c, 7.3.a, and 8.9.c). In all 3 instances, it introduced an -ing clause, with the time relation being once again simultaneity of the subordinate and the matrix clause. A single clause was introduced by the subordinator “once.” It was the only -ed adverbial clause found in the corpus. The low occurrence of -ed clauses is not surprising, since, according to Biber et al.’ findings, they are the least common form of adverbial clauses (1999, 826). The conjunction “as” more frequently introduced reason clauses, than it did time clauses. Only one clause introduced by it, namely 5.7.a, was classified as a clause of time. However, the given clause does not offer a clear interpretation and may be interpreted as expressing either of the semantic relations, or even as blending the two and expressing both relations at the same time.

None of the other uses of “as” found in the corpus present this kind of ambiguity. Each of the rest of the clauses introduced by the subordinator (e.g. 2.4.a, 4.5.a, or 7.10.a) belongs to the semantic category of reason. With 8 occurrences in total, “as” was the most frequent subordinator introducing reason clauses. Only one other instance of a different subordinator expressing reason appeared in the corpus, namely “because,” found in 3.10.a. The frequency of “as” in reason clauses as opposed to other semantic categories is surprising, since it is once again at odds with the findings of Biber et al., according to which “as” is more commonly found in time or manner clauses in academic discourse (1999, 847).

All clauses of purpose found in the corpus had the form of to-infinitives, confirming that purpose clauses do indeed most frequently appear in said form, as stated in chapter 3.5.5. Subjectless -ing clauses without a subordinator were classified as circumstance clauses (e.g. 4.8.a, 6.6.a, or 7.8.a). Aside from those, there were also 2 circumstance clauses with both an overt subject and a subordinator, namely “with” (7.14.a and 8.8.b). Since compared to other registers, academic discourse usually requires a higher level of exactness and precision, it is surprising that the proportion of general circumstance clauses was relatively high, compared to other semantic types found in the corpus.

Aside from the above circumstance clauses, there were 6 other -ing clauses without an overt subject or a subordinator. Their semantic relation to their matrix clause was, however, marked by different means. Two of the clauses, namely 1.10.a and 3.9.a, contained the verb “using,” marking them as clauses of instrument (1985, 482). In 4.3.a and 7.15.a, the semantic relation was made explicit by the adverb “thereby,” expressing the meaning of result in the subordinate clause and marking the matrix clauses as the means by which the result was achieved. While there is no marker in the two clauses coordinated with 4.3.a, they seem to fall within the scope of the adverb in the first coordinate. Furthermore, the coordinator “and” connotes the meaning of result in these clauses.

Lastly, the two clauses of place were both introduced by the subordinator “where.” In clause 1.12.a, the reference is not to a literal physical location. Instead, the meaning is figurative, referring to the hypothetical point of divide mentioned in the matrix clause. In the second clause, 8.6.a, there was certain amount of indeterminacy in terms of its classification. While it does have the form of an adverbial clause of time, it seems to function more as relative clause modifying the preceding noun phrase. The adverb “where” can indeed introduce a relative clause, however, the clause in such cases refers to a location as its antecedent. The lack of such antecedent in the case of 8.6.a is the reason why the clause is classified as an adverbial.

Aside from the aforementioned coordination of result clauses in 4.3.i, adverbial clauses were coordinated in 4 instances. The parenthetical clauses in 1.9.i were joined by “or” and they represented alternative examples in apposition to the preceding clause. The purpose clauses in 5.2.i were joined by “and,” with its connotative meaning marking the second clause as the result of the first. The same connotation was present in the coordination of result clauses in 4.5.i. Result clauses were also coordinated in 5.6.i, however, the connotation in that case was one of chronological sequence.

Conclusion

The aim of the thesis was to analyse and compare the use of coordination and subordination of clauses in academic discourse. For this purpose, a corpus was created consisting of 200 occurrences taken from 8 academic journal articles from a variety of fields.

The initial quantitative analysis revealed a much higher rate of occurrence of subordination, which constituted 86% of all occurrences. In comparison, coordination constituted only 14% of all occurrences. The two devices differed in their rate of co-occurrence. The device of coordination appeared more frequently alongside subordination, than it did in isolation. Of the 28 occurrences of clausal coordination, only 4 were to be found in sentences without any form of subordination. On the other hand, the device of subordination figured more frequently in sentences which contained no form of clausal coordination. Of the 172 occurrences of subordination, 105 were to be found in sentences without any form of clausal coordination. The fact that subordination appeared at a higher frequency overall, combined with the fact that most cases of coordination appeared alongside subordination reveals a strong preference for the device of subordination in academic discourse.

In most cases, coordinated clauses were joined syndetically, with the use of the conjunction “and.” The way the conjunction was used allowed for a variety of semantic relations to be inferred between the coordinated clauses. With the most common meaning expressed by it being that of result, the conjunction was shown to be the most common method of expressing said semantic relation. Aside from that, “and” commonly appeared in its core meaning of addition. The other central coordinating conjunctions were relatively infrequent and only appeared in their core meanings.

Structurally, subordinate clauses were more frequently non-finite than finite, with 103 of the total 172 instances being non-finite, and 69 being finite clauses. The preference for non-finite clauses may perhaps be ascribed to the compactness of their form, allowing for complex sentences dense with information. Within the functional types of subordinate clauses, the proportion of non-finite clauses was higher in the case of nominal and adverbial clauses, whereas in the case of relative clauses, finite clauses predominated, if only by a slight margin. Of the three functional types of subordinate clauses, nominal clauses were found to be the most frequently coordinated type, with the least frequently coordinated type being relative clauses.

In some cases, surprising discrepancies were found between the findings of this thesis and the corpus findings Biber et al. in *Longman Grammar of Spoken and Written English*, particularly

in the use of certain relative pronouns and the frequency of finite and non-finite adverbial clauses. These differences were mainly determined to be indicative of the changing tendencies in the use of said forms in academic discourse.

Resumé

Tato bakalářská práce se zaměřuje na analýzu vztahů koordinace a subordinace vět v kontextu akademického diskurzu. Jejím cílem je popsat četnost a účel výskytů daných vztahů. Za tímto účelem byl vytvořen korpus skládající se z 8 autentických akademických článků vydaných nakladatelstvím *Scientific Research Publishing*. Korpus se skládá z první dvaceti pěti výskytů vztahů koordinace a subordinace z každého článku, celkem tedy z 200 výskytů. Práce je rozdělena na teoretickou část, ve které jsou dané vztahy popsány z pohledu lingvistiky, a praktickou část, ve které jsou analyzovány konkrétní výskyty z korpusu.

Teoretická část práce se skládá celkem ze tří kapitol. V první kapitole jsou nejprve vymezeny vztahy koordinace a subordinace a poté je popsána základní terminologie užívaná pro popis daných vztahů. Dále jsou zde popsány druhy vět, které vznikají v důsledku užití daných vztahů. V případě vět spojených koordinací se jedná o souvětí souřadná, zatímco v případě subordinace, kde jsou určité věty podřízeny větám jiným, se jedná o souvětí podřadná. Vztahy koordinace a subordinace jsou následně blíže definovány v samostatných kapitolách.

V druhé kapitole je podrobněji vymezen vztah koordinace. Pozornost je věnována konkrétním druhům, na které lze koordinaci rozdělit. Koordinace se rozlišuje například podle toho, jestli spojuje pouze dvě věty či slova, nebo jestli jich spojuje více. Dále se rozlišuje na koordinaci asyndetickou, v jejímž případě chybí v souvětí spojka a věty jsou místo toho juxtaponované, a syndetickou, v jejímž případě je souvětí spojeno použitím souřadících spojek. Konkrétní souřadící spojky, jež se v koordinaci používají, jsou následně vymezeny a rozděleny na dvě hlavní kategorie, konkrétně spojky centrální a spojky korelativní. Jako centrální jsou určeny spojky „and“, „or“ a „but“. Zahrnuta jako souřadící je i spojka „for“, s tím, že nepatří mezi centrální případy. Dále je vymezena kategorie spojek korelativních, které se skládají z některé z centrální spojek, jenž tvoří korelativní dvojici s dalším slovem ve druhé koordinované větě. Nakonec jsou představeny konkrétní významové vztahy, ve kterých dané spojky figurují.

Ve třetí kapitole je pozornost věnována vztahu subordinace. V první řadě jsou vymezeny spojky podřadící, které v daném vztahu figurují. Opět je představena terminologie používaná různými lingvisty a dále je představen účel konkrétních druhů podřadících spojek. Poté jsou popsány jednotlivé typy vedlejších vět. Na základě slovesného tvaru jsou vedlejší věty rozděleny na věty určité, neurčité a dále na věty bez slovesa. Tyto tři typy jsou označeny jako strukturální typy vedlejších vět. Vedlejší věty jsou také rozděleny na funkční typy. Funkční typy jsou rozděleny na věty obsahové, vztahné a příslovečné. Určité věty obsahové, jejichž funkce ve větách je obdobou funkcí podstatných jmen, jsou rozděleny na závislé věty oznamovací, tázací a zvolací.

Též zahrnuty v této kategorii jsou vztažné věty substantivní, jelikož stejně jako ostatní obsahové věty figurují v obdobných syntaktických funkcích jako podstatná jména. Neurčité věty obsahové jsou rozděleny na věty infinitivní a gerundiální. Termín gerundium není v práci používán a je zde uveden pouze proto, že je standardní v české terminologii. Stejně tak není v práci používán termín participium, který zde bude používán ze stejných důvodů. Místo nich je používán termín „-ing clause“ s tím, že dané formy sloves lze rozlišit podle toho, v jakém funkčním typu vedlejších vět se nacházejí. Pakliže je „-ing clause“ větou obsahovou, jedná se o gerundium, v ostatních dvou typech o participium.

V následující podkapitole jsou popsány vedlejší věty vztažné, které plní v souvětích funkci přívlastku. Tyto věty jsou rozděleny na dva typy. Adnominální vztažné věty modifikují některé podstatné jméno ve větě hlavní. Toto podstatné jméno má vůči dané vztažné větě funkci antecedentu. Kromě adnominálních vztažných vět existují též vztažné věty, které mají místo podstatného jména celou větu jako svůj antecedent. Dále jsou vztažné věty rozděleny na restriktivní, které poskytují informace nezbytné k identifikaci svého antecedentu, a nerestriktivní, které poskytují pouze dodatečné informace o svém antecedentu. Jako neurčité vztažné věty jsou do této kategorie zahrnuty též participia a infinitivy, které modifikují podstatná jména.

V poslední kapitole jsou popsány vedlejší věty příslovečné. Ty jsou rozděleny do několika podkategorií podle toho, jaké sémantické vztahy jsou jimi vyjádřeny. V každé kategorii jsou uvedeny hlavní spojky, které obvykle věty v dané podkategorii uvozují.

Praktická část této bakalářské práce je rozdělena do tří hlavních kapitol. V první kapitole praktické části je rozebírán celkový poměr výskytů vztahů koordinace a subordinace. Následující dvě kapitoly jsou věnovány každému z těchto vztahů. V celkovém počtu výskytů výrazně převládal vztah subordinace, který tvořil 86 % korpusu, nad vztahem koordinace, který tvořil 14 % korpusu. Vztah subordinace byl dále méně častěji používán v kombinaci s koordinací. Vztah koordinace se naopak v kontextu věty mnohem častěji objevoval společně se vztahem subordinace.

Druhá kapitola praktické části se zaměřuje na vztah koordinace. Pozornost je věnována převážně výskytu typů tohoto vztahu a použití konkrétních spojek. Věty byly nejčastěji koordinovány syndeticky (92,9 %), tedy za použití spojek. Asyndetická koordinace se objevila pouze ve dvou výskytech (7,1 %). Koordinace byla dále častější mezi dvěma větami (85,7 %), než mezi více větami (14,3 %). V koordinovaných větách, které sdílely identický podmět, byla běžná elipsa podmětu v druhé z koordinovaných vět. Stejně tak byla běžná elipsa sdílených pomocných sloves a v případě koordinovaných infinitivů docházelo k elipse infinitivní částice.

Ze spojek bylo v koordinaci nejčastější „and“. Tato spojka se ve větách objevovala s několika různými konotacemi. Nejčastěji spojka označovalo druhou koordinovanou větu jako výsledek věty první. Daný význam byl koordinací vyjádřen častěji než subordinací.

Třetí kapitola je rozdělena do tří sekcí, podle funkčních typů vedlejších vět. Z těchto typů se nejméně v korpusu vyskytovaly příslovečné věty (26,7 %). Obsahové věty (36,1 %) a vztažné věty (37,2 %) byly v korpusu zastoupeny téměř rovnoměrně. Z vedlejších vět byly nejčastěji koordinované věty obsahové, nejméně často věty relativní. Co se strukturální typů vět týče, neurčité věty (59,9 %) byly celkově častější než věty určité (40,1 %). Vyšší poměr vět neurčitých se dá pravděpodobně přičíst kompaktnosti těchto forem. Pouze v případě vztažných vět převládaly věty určité. Dále byly vztažné věty častěji restriktivní (75 %) než nerestriktivní (25 %). To znamená, že vztažné věty nejčastěji podávali informace potřebné k jednoznačnému určení daných podstatných jmen, která modifikovaly.

Příslovečné věty nejčastěji vyjadřovaly časové vztahy (22,2 %) a vztahy obecné průvodní okolnosti (22,2 %), což je kategorie, do které byly zařazeny participiální vztažné věty bez vyjádřeného podmětu a spojky, která by jasně určovala jejich sémantický vztah k větě hlavní. Z dalších kategorií se nejvíce vyskytovaly věty příčinné (20 %) a účelové (17,9 %). Ostatní sémantické kategorie nebyly v korpusu výrazně zastoupeny.

Bibliography

- Alexander, L. G. 1988. *Longman English Grammar*. Harlow: Pearson Education Limited.
- Biber, Douglas, Stig Johansson, Geoffrey Leech, Susan Conrad, and Edward Finegan. 1999. *Longman Grammar of Spoken and Written English*. Harlow: Pearson Education Ltd.
- Brown, Keith, and Jim Miller. 2013. *The Cambridge Dictionary of Linguistics*. Cambridge: Cambridge University Press.
- Carter, Ronald, and Michael McCarthy. 2006. *Cambridge Grammar of English*. Cambridge: Cambridge University Press.
- Crystal, David. 2008. *A Dictionary of Linguistics and Phonetics*. 6th ed. Malden: Blackwell Publishing.
- Dušková, Libuše, Zdenka Strnadová, Dagmar Knittlová, Jaroslav Peprník, a Jarmila Tárnyiková. 1988. *Mluvnice současné angličtiny na pozadí češtiny*. Praha: Academia.
- Eastwood, John. 1994. *Oxford Guide to English Grammar*. Oxford: Oxford University Press.
- Greenbaum, Sidney. 1996. *The Oxford English Grammar*. New York: Oxford University Press.
- Greenbaum, Sidney, and Gerald Nelson. 2013. *An Introduction to English Grammar*. 3rd ed. New York: Routledge.
- Greenbaum, Sidney, and Randolph Quirk. 1990. *A Student's Grammar of the English Language*. Harlow: Addison Wesley Longman Ltd.
- Haspelmath, Martin. 2007. "Coordination." In *Language Typology and Syntactic Description: Volume II*, edited by Timothy Shopen, 1–51. New York: Cambridge University Press.
- Huddleston, Rodney. 1984. *Introduction to the Grammar of English*. Cambridge: Cambridge University Press.
- Huddleston, Rodney. 1988. *English grammar: an outline*. Cambridge: Cambridge University Press.
- Huddleston, Rodney, and Geoffrey K. Pullum. 2002. *The Cambridge Grammar of the English Language*. Cambridge: Cambridge University Press.

- Huddleston, Rodney, and Geoffrey K. Pullum. 2006. "Coordination and Subordination." In *The Handbook of English Linguistics*, edited by Bas Aarts, and April McMahon, 198–219. Oxford: Blackwell Publishing.
- Leech, Geoffrey. 1989. *An A–Z of English Grammar and Usage*. Harlow: Addison Wesley Longman Ltd.
- Leech, Geoffrey, and Jan Svartvik. 1975. *A Communicative Grammar of English*. 3rd ed. Harlow: Longman.
- Matthews, P. H. 1981. *Syntax*. Cambridge: Cambridge University Press.
- Quirk, Randolph, and Sidney Greenbaum. 1973. *A University Grammar of English*. Harlow: Addison Wesley Longman Ltd.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik. 1985. *A Comprehensive Grammar of English Language*. Harlow: Longman Group Ltd.
- Sag, Ivan. 1997. "English Relative Clause Constructions." *Journal of Linguistics* 33 (2): 431–483.

Appendix 1 – Corpus

Article 1: Weak Connection between Policy Repositioning and Affective Polarization

<https://doi.org/10.4236/ojps.2025.152024>

- 1) Politicians around the world often switch positions on policy, **and** perhaps, as a result, repositioning is studied frequently in political science.
 - i. coordination of main clauses, coordinator “and” (result)
- 2) More recently, Donald Trump disavowed disruptive cuts to the federal government ^a*espoused in “Project 2025”*, **but** subsequently implemented these executive orders in office.
 - i. coordination of main clauses, subject ellipsis, coordinator “but” (contrast)
 - a. (non-finite, reduced relative, -ed clause, restrictive)
- 3) In Latin America, presidential candidates campaigned on liberal welfare policies **and** then switched toward conservatism ^a*once elected*.
 - i. coordination of main clauses, subject ellipsis, coordinator “and” (chronological sequence)
 - a. (non-finite, adverbial, time, -ed clause)
- 4) Experimental results find ^a*that candidate repositioning changes three sets of outcome measures*.
 - a. (finite, nominal, that-clause, object)
- 5) However, past research has not analyzed ^a*how repositioning might cause affective polarization*.
 - a. (finite, nominal, wh-interrogative, object)
- 6) Repositioning also changes a variety of valence evaluations, such as competency, trustworthiness, sincerity, ^a***and** whether or not an individual is considered morally upstanding*.
 - i. multiple coordination of appositives, simple-syndetic, mixed, coordinator “and” (addition)
 - a. (finite, nominal, alternative interrogative, appositive)
- 7) With regard to valence, these findings suggest ^a*that repositioning alters potentially emotionally charged character evaluations* ^b***and** not just spatial model factors* ^c*related to voting and ideology*.

- a. (finite, nominal, that-clause, object)
 - i. appended coordination of subordinate clauses, coordinator “and” (addition)
 - b. (finite, nominal, that-clause, object)
 - c. (non-finite, reduced relative, -ed clause, restrictive)
- 8) The present study tests ^a|*whether repositioning also causes affective polarization*|.
- a. (finite, nominal, yes-no interrogative, object)
- 9) This might be especially possible ^a|*when candidates reposition in a polarized direction*| (e.g., ^a|*when a conservative candidate repositions to a more conservative position* ^b|**or** *when a liberal candidate switches to a more liberal position*).
- a. (finite, adverbial, time)
 - b. (finite, adverbial, time)
 - i. coordination of subordinate clauses, coordinator “or” (alternative)
 - c. (finite, adverbial, time)
- 10) Affective polarization is typically measured ^a|*using surveys*|.
- a. (non-finite, adverbial, instrument)
- 11) One of the most well known measures is the feeling thermometer of the parties, ^a|*broken out by out-party vs. in-party*|.
- a. (non-finite, reduced relative, -ed clause, non-restrictive)
- 12) This measure shows a growing divide among Americans ^a|*where partisan affiliation influences views of self and (increasingly negative) views of the out-party*|.
- a. (finite, adverbial, place)
- 13) *These feelings are not contained to the mass public—the activist class in American politics also demonstrates a high degree of affective polarization.*
- i. asyndetic coordination of main clauses, dash
- 14) Some argue ^a|*that these partisan-based worldviews extend to other identities, such as ideology, friendship groups, or the type of person* ^b|*that someone might prefer* ^c|*to marry*|.
- a. (finite, nominal, that-clause, object)
 - b. (finite, adnominal relative, restrictive, “that”)
 - c. (non-finite, nominal, to-infinitive, object)

Article 2: Enhancing Mental Health Services for U.S. Military Personnel: A Review of Current Practices

<https://doi.org/10.4236/psych.2025.165032>

- 1) The U.S. military plays a vital role in ^a*|defending the nation's security and interests|*, both at home and abroad.
 - b. (non-finite, nominal, -ing clause, prepositional complement)
- 2) Military personnel are exposed to a wide range of profound stressors, including direct combat exposure, deployment-related trauma, such as ^a*|witnessing* ^b*|or experiencing violence|*, family and household challenges like separation from loved ones and reintegration difficulties, and the trauma of military sexual assault, ^c*|all of which can contribute to the development of mental health disorders such as depression, anxiety, post-traumatic stress, and substance abuse|*.
 - a. (non-finite, nominal, -ing clause, appositive)
 - i. coordination of subordinate clauses, delayed right constituent, coordinator “or” (alternative)
 - b. (non-finite, nominal, -ing clause, appositive)
 - c. (finite, adnominal relative, non-restrictive, “which”)
- 3) Furthermore, the constant state of combat readiness and the ever-present threat of harm can also create a pervasive sense of danger, ^a*|leading to complex physiological and psychological symptoms* ^b*|that further exacerbate these mental health concerns|*.
 - a. (non-finite, reduced relative, -ing clause, non-restrictive)
 - b. (finite, adnominal relative, restrictive, “that”)
- 4) Additionally, the families of service members are also significantly affected; ^a*|as the degree of hardship and negative consequences often rises with the service member's exposure to traumatic or life-altering experiences|*, there is an increased risk of psychological disorders among military spouses and children.
 - i. asyndetic coordination of main clauses, semicolon
 - a. (finite, adverbial, reason)
- 5) Despite the clear need for comprehensive mental health support, military personnel often face significant barriers ^a*|that impede their ability* ^b*|to access* ^c*|and utilize these critical services.*
 - a. (finite, adnominal relative, restrictive, “that”)
 - b. (non-finite, nominal, to-infinitive, appositive)

- i. coordination of subordinate clauses, object and particle ellipsis, coordinator “and” (result)
- c. (non-finite, nominal, to-infinitive, appositive)
- 6) Factors such as the perceived stigma ^a*|associated with* ^b*|seeking mental health care|*, concerns about the potential negative impact on military careers and confidentiality, and difficulties ^c*|integrating care across the military and civilian health care systems|* are just a few of the complex factors ^d*|that can hinder service members from* ^e*|seeking* ^f***|and receiving the mental health support*** ^g*|they desperately require|*.
 - a. (non-finite, reduced relative, -ed clause, restrictive) condensed passive structure
 - b. (non-finite, nominal, -ing clause, prepositional complement)
 - c. (non-finite, nominal, -ing clause, appositive)
 - d. (finite, adnominal relative, restrictive, “that”)
 - e. (non-finite, nominal, -ing clause, prepositional complement)
 - i. coordination of subordinate clauses, delayed right constituent, coordinator “and” (result)
 - f. (non-finite, nominal, -ing clause, prepositional complement)
 - g. (finite, adnominal relative, restrictive, zero relative)
- 7) Research has shown ^a*|that a substantial number of active-duty military personnel seek mental health services outside the military, often due to these deep-rooted concerns about confidentiality and the potential impact on their military careers|*.
 - a. (finite, nominal, that-clause, object)
- 8) This highlights the urgent need for a comprehensive, integrated approach to mental health care ^a*|that directly addresses the unique needs and worries of this population|*.
 - a. (finite, adnominal relative, restrictive, “that”)
- 9) ^a***|Overcoming these systemic barriers*** ^b***|and providing accessible, confidential, and effective mental health services|*** is crucial for *|supporting the overall well-being, resilience, and readiness of U.S. military personnel|*.
 - a. (non-finite, nominal, -ing clause, subject)
 - i. coordination of subordinate clauses, coordinator “and” (condition/result)

Article 3: Importance of Stewards and Other Protection Efforts for Conservation of Red Knots (*Calidris canutus rufa*) and Other Shorebirds on Delaware Bay, New Jersey

<https://doi.org/10.4236/ns.2024.169013>

- 1) ^a|*Understanding the factors* ^b|*that contribute to survival and reproduction in coastal species*| is key to ^c|*maintaining healthy coastal ecosystems*|.
 - a. (non-finite, nominal, -ing clause, subject)
 - b. (finite, adnominal relative, restrictive, “that”)
 - c. (non-finite, nominal, -ing clause, prepositional complement)
- 2) Shorebirds are one of the most endangered groups of birds in the world, exhibit some of the longest migration routes, **and** make some of the longest non-stop flights ^a|*known*|.
 - i. multiple coordination of main clauses, simple-syndetic, subject ellipsis coordinator “and” (addition)
 - a. (non-finite, reduced relative, -ed clause, restrictive)
- 3) Many shorebird species are threatened or endangered, **and** more species are heading in that direction.
 - i. coordination of main clauses, coordinator “and” (addition)
- 4) The causes of declines relate to human disturbance, habitat loss, prey depletion, predation pressures, severe weather events, sea level rise, and climate change ^a|*acting at breeding, stopover, and wintering sites*|.
 - a. (non-finite, reduced relative, -ing clause, restrictive)
- 5) ^a|*Whether the threats act most severely at breeding areas, wintering areas, or during migration*| is unclear, **but** identifying the stressors ^b|*shorebirds face on different nodes of their yearly cycle*| is a necessary step for conservation.
 - a. (finite, nominal, alternative interrogative, subject)
 - i. coordination of main clauses, coordinator “but” (contrast)
 - b. (finite, adnominal relative, restrictive, zero relative)
- 6) The connectivity between breeding and wintering areas is clearly important for ^a|*evaluating the stressors* ^b|*shorebirds face during migration*|, *including the key stopover sites*|.
 - a. (non-finite, nominal, -ing clause, prepositional complement)
 - b. (finite, adnominal relative, restrictive, zero relative)
- 7) ^a|*Understanding the stressors and threats* ^b|*faced by red knots (*Calidris canutus rufa*) and other shorebirds at stopover sites*| is important ^c|*to protect existing populations*|,

but it is equally important ^d|*to document the extent and efficacy of different protection efforts* ^e|*employed at stopover sites*|.

- a. (non-finite, nominal, -ing clause, subject)
- b. (non-finite, reduced relative, -ed clause, restrictive)
- c. (non-finite, adverbial, purpose, to-infinitive)
 - i. coordination of main clauses, coordinator “but” (contrast)
- d. (non-finite, nominal, to-infinitive, subject in extraposition)
- e. (non-finite, reduced relative, -ed clause, restrictive)

8) This information is critical to ^a|*designing a hemisphere-wide conservation strategy and business plan for* ^b|*protecting shorebirds*|.

- a. (non-finite, nominal, -ing clause, prepositional complement)
- b. (non-finite, nominal, -ing clause, prepositional complement)

9) **In this paper, we document changes in the number and distribution of red knots** ^a|*using Delaware Bay, New Jersey from 1986 to 2018*|, **briefly describe studies on effects of human disturbance on shorebirds, and examine the effect of conservation (protection) efforts of the NJ Department of Environmental Protection and others** ^b|*to reduce the impact of disturbance* ^c|*resulting from human activities*|, including their efficacy.

- a. (non-finite, adverbial, instrument)
 - i. multiple coordination of main clauses, simple-syndetic, subject ellipsis coordinator “and” (addition)
- b. (non-finite, nominal, to-infinitive, appositive)
- c. (non-finite, reduced relative, -ing clause, restrictive)

10) The time period for surveys was used ^a|*because it is the time period* |*when efficacy of stewards can be examined in a similar pre- and post-steward case study*|.

- a. (finite, adverbial, reason)

Article 4: Considering Color: Applying Psychology to Improve the Use of Color in Digital Interfaces

<https://doi.org/10.4236/adr.2024.124022>

- 1) The use of color in digital interfaces is a critical aspect of user experience design,^a*|influencing both the aesthetic appeal and functional usability of software applications|*.
 - a. (non-finite, reduced relative, -ing clause, non-restrictive)
- 2) Empirical studies have demonstrated^a*|that color can significantly impact user performance and satisfaction|*.
 - a. (finite, nominal, that-clause, object)
- 3) For instance, research indicates^a*|that appropriate color contrast can enhance readability by up to 40%,^b|thereby reducing user error rates^c|and significantly reducing eye strain^d|and enhancing user comfort|*.
 - a. (finite, nominal, that-clause, object)
 - b. (non-finite, adverbial, result, -ing clause)
 - c. (non-finite, adverbial, result, -ing clause)
 - d. (non-finite, adverbial, result, -ing clause)
 - i. multiple coordination of subordinate clauses, polysyndetic, coordinator “and” (result)
- 4) Additionally, color coding has been shown^a*|to improve information retrieval times by 20% in complex interfaces|*.
 - a. (non-finite, nominal, to-infinitive, object)
- 5) Color coding in navigation menus can decrease task completion times by 30%,^a*|as users can quickly identify^b|and access desired functions|*.
 - a. (finite, adverbial, reason)
 - i. coordination of subordinate clauses, subject and conjunction ellipsis, coordinator “and” (result)
 - b. (finite, adverbial, reason)
- 6) These practical insights underscore the necessity of strategic color application in interface design,^a*|ensuring^b|that digital products are not only visually engaging but also functionally efficient|*.
 - a. (non-finite, reduced relative, -ing clause, non-restrictive)
 - b. (finite, nominal, that-clause, object)

- 7) User Experience (UX) is an essential component of all products, **and** well-designed digital interfaces utilize rules and good-practice guidelines from the field of Human-Computer Interaction (HCI).
- i. coordination of main clauses, coordinator “and” (addition)
- 8) UX focuses on user-centered design, ^a*making sure* ^b*that design decisions meet the needs of the user* ^c*while also considering commercial goals*.
- a. (non-finite, adverbial, circumstance, -ing clause)
 - b. (finite, nominal, that-clause, adjectival complement)
 - c. (non-finite, adverbial, time, -ing clause)
- 9) Often, a commercial goal includes ^a*holding the attention of the user* ^b*to promote extended interactions*.
- a. (non-finite, nominal, -ing clause, object)
 - b. (non-finite, adverbial, purpose, to-infinitive)
- 10) UX research aims ^a*to achieve a compromise between the commercial goals* ^b**and** *accommodating the needs and preferences of the users*.
- a. (non-finite, nominal, to-infinitive, object)
 - i. coordination of prepositional complements, mixed, coordinator “and” (addition)
 - b. (non-finite, nominal, -ing clause, prepositional complement)
- 11) Research is required within the field of User Interface (UI) design ^a*to determine* ^b*how color plays a role in* ^c*achieving the desired commercial goals*.
- a. (non-finite, adverbial, purpose, to-infinitive)
 - b. (finite, nominal, wh-interrogative, object)
 - c. (non-finite, nominal, -ing clause, prepositional complement)

Article 5: Reversible Fuel Cells: A Comprehensive Analysis of Challenges, Opportunities, and Regulatory Perspectives

<https://doi.org/10.4236/jpee.2025.136001>

- 1) Reversible fuel cells (RFCs) are at the heart of current discussions about potential sustainable energy solutions, ^a*as they have the potential* ^b*to transform the way* ^c*energy is stored* *completely*.
 - a. (finite, adverbial, reason)
 - b. (non-finite, nominal, to-infinitive, appositive)
 - c. (finite, adnominal relative, restrictive, zero relative)
- 2) RFCs can use electricity ^a*to produce hydrogen* ^b*and restore electricity*.
 - a. (non-finite, adverbial, purpose, to-infinitive)
 - i. coordination of subordinate clauses, particle ellipsis, coordinator “and” (result)
 - b. (non-finite, adverbial, purpose, to-infinitive)
- 3) Their characteristics make them ideal systems ^a*to satisfy the growing need for flexible and high-efficiency energy solutions* ^b*that comply with today’s requirements for a shift to more sustainable behavior*.
 - a. (non-finite, reduced relative, to-infinitive, restrictive)
 - b. (finite, adnominal relative, restrictive, “that”)
- 4) Reliability issues are among the numerous challenges ^a*posed by* ^b*incorporating renewable energies into our energy grids*.
 - a. (non-finite, reduced relative, -ed clause, restrictive)
 - b. (non-finite, nominal, -ing clause, prepositional complement)
- 5) The renewable energies ^a*included in RFCs* produce energy in an intermittent and unstable manner, ^b*offering varying output levels* ^c*depending on factors such as the time of day and weather conditions*.
 - a. (non-finite, reduced relative, -ed clause, restrictive)
 - b. (non-finite, adverbial, circumstance, -ing clause)
 - c. (non-finite, reduced relative, -ing clause, restrictive)
- 6) The huge-scale hydrogen storage capabilities ^a*offered by RFC* can play an important role in ^b*making up for those reliability issues*, ^c*as the energy surplus* ^d*produced* ^e*when renewable energies are available* *can be stored into hydrogen* ^f*and later make up for*

the lack of energy^g|*when the renewable source cannot output energy by*^h|*converting back the hydrogen into electricity*|.

- a. (non-finite, reduced relative, -ed clause, restrictive)
 - b. (non-finite, nominal, -ing clause, prepositional complement)
 - c. (finite, adverbial, reason)
 - d. (non-finite, reduced relative, -ed clause, restrictive)
 - e. (finite, adverbial, time)
 - i. coordination of subordinate clauses, subject, operator, and conjunction ellipsis, coordinator “and” (chronological sequence)
 - f. (finite, adverbial, reason)
 - g. (finite, adverbial, time)
 - h. (non-finite, nominal, -ing clause, prepositional complement)
- 7) Innovations and breakthroughs in RFC technology are becoming increasingly significant^a|*as global energy demand continues to grow*|.
- a. (finite, adverbial, time/reason)
- 8) RFCs have demonstrated promising capabilities for incorporation into a sustainable energy system,^a|*which would radically change the way*^b|*energy storage and conversion processes are handled*|, |*contributing significantly to* |*reducing fossil fuel dependence and carbon emissions* |*to address climate change on a global scale*|.
- a. (finite, adnominal relative, non-restrictive, “which”)
 - b. (finite, adnominal relative, restrictive, zero relative)

Article 6: Risk of Adverse Reactions to Oat-Based Topical Therapies in Atopic Dermatitis patients with Avenin Allergy

<https://doi.org/10.4236/mri.2025.142004>

- 1) Atopic dermatitis (AD) is a common inflammatory skin disease ^a*|that affects around 204 million people worldwide|*.
 - a. (finite, adnominal relative, restrictive, “that”)
- 2) AD is marked by pruritus, erythema, and eczematous lesions ^a*|that can profoundly impact quality of life|*.
 - a. (finite, adnominal relative, restrictive, “that”)
- 3) This decrease in filaggrin, essential for ^a*|maintaining skin integrity|*, is inhibited by the type 2 immune response, ^b*|primarily mediated by T Helper 2 (Th2) cells|*.
 - a. (non-finite, nominal, -ing clause, prepositional complement)
 - b. (non-finite, reduced relative, -ed clause, non-restrictive)
- 4) AD is considered part of the atopic triad, ^a*|which also includes allergic rhinitis and allergic asthma|*.
 - a. (finite, adnominal relative, non-restrictive, “which”)
- 5) Additionally, patients with AD frequently experience comorbidities such as food allergies, ^a*|which can exacerbate symptoms* ^b*|and complicate management strategies|*.
 - a. (finite, adnominal relative, non-restrictive, “which”)
 - i. coordination of subordinate clauses, subject and operator ellipsis, coordinator “and” (result)
 - b. (finite, adnominal relative, non-restrictive, “which”)
- 6) These overlapping conditions often complicate management and treatment strategies, ^a*|necessitating targeted treatments* ^b*|to address both skin symptoms and underlying triggers|*.
 - a. (non-finite, adverbial, circumstance, -ing clause)
 - b. (non-finite, adverbial, purpose, to-infinitive)
- 7) Oat-based topical treatments are commonly prescribed to patients ^a*|who are diagnosed with AD|*.
 - a. (finite, adnominal relative, restrictive, “who”)
- 8) Treatments ^a*|containing colloidal oatmeal|* have become a cornerstone in the management of AD due to their anti-inflammatory, soothing, and barrier-repairing properties.

- a. (non-finite, reduced relative, -ing clause, restrictive)
- 9) These benefits are derived largely from the presence of avenanthramides, ^a*which have been shown* ^b*to reduce inflammation and pruritus effectively in clinical settings*.
- a. (finite, adnominal relative, non-restrictive, “which”)
- b. (non-finite, nominal, to-infinitive, object)
- 10) Moreover, treatments help ^a*to restore the compromised skin barrier function* ^b*commonly observed in AD patients* | by ^c*delivering essential lipids* ^d**and enhancing skin hydration**|.
- a. (non-finite, nominal, to-infinitive, object)
- b. (non-finite, reduced relative, -ed clause, restrictive)
- c. (non-finite, nominal, -ing clause, prepositional complement)
- i. coordination of subordinate clauses, coordinator “and” (result)
- d. (non-finite, nominal, -ing clause, prepositional complement)
- 11) **Through this mechanism, the skin barrier can repair itself and prevent the entry of allergens,** ^a*initiating the immune response*|.
- i. coordination of main clauses, subject and operator ellipsis, coordinator “and” (result)
- a. (non-finite, reduced relative, -ing clause, non-restrictive)
- 12) Avenin, the major storage protein in oats, is a prolamin ^a*that is similar to gluten* ^b*found in wheat and other cereals*.
- a. (finite, adnominal relative, restrictive, “that”)
- b. (non-finite, reduced relative, -ed clause, restrictive)
- 13) In individuals with AD, avenin may act as an allergen for those with oat sensitization, ^a*potentially triggering IgE-mediated hypersensitivity reactions* ^b*that could exacerbate symptoms*|.
- a. (non-finite, adverbial, circumstance, -ing clause)
- b. (finite, adnominal relative, restrictive, “that”)

Article 7: The Crucial Role of Safeguarding Critical Infrastructure in Ensuring the Stability and Security of the U.S. Supply Chain

<https://doi.org/10.4236/ajibm.2025.157051>

- 1) It is crucial ^a*|to protect the U.S. critical infrastructure|* for the stability and security of the national supply chain.
 - a. (non-finite, nominal, to-infinitive, subject in extraposition)
- 2) Rapidly changing global threats highlight a growing need for prevention ^a*|based on empirical research|*.
 - a. (non-finite, reduced relative, -ed clause, restrictive)
- 3) The delivery of critical infrastructure's essential services should be protected ^a*|while reducing supply chain vulnerability|*.
 - a. (non-finite, adverbial, time, -ing clause)
- 4) Innovative technologies provide an opportunity ^a*|to protect unstable infrastructure systems|*.
 - a. (non-finite, nominal, to-infinitive, appositive)
- 5) Innovative technologies ^a*|aimed at* ^b*|protecting the adopted common approach|* can lead to greater strategic infrastructure systems, ^c*|impacting both economic and security interests|*.
 - a. (non-finite, reduced relative, -ed clause, restrictive)
 - b. (non-finite, nominal, -ing clause, prepositional complement)
 - c. (non-finite, adverbial, circumstance, -ing clause)
- 6) Critical infrastructure is the backbone of national security, ^a*|designed* ^b*|to ensure the continued delivery of vital services, including energy supply, transportation, and communications|*.
 - a. (non-finite, reduced relative, -ed clause, non-restrictive)
 - b. (non-finite, adverbial, purpose, to-infinitive) predication adjunct
- 7) This broad array of interconnected services includes numerous components ^a*|that serve the country's interests|*.
 - a. (finite, adnominal relative, restrictive, "that")
- 8) Information and communications technology also enhances the digital economy, ^a*|supporting everything from e-commerce and delivery systems to official government business|*.
 - a. (non-finite, adverbial, circumstance, -ing clause)

- 9) All these various factors have their individual importance ^a|*as they contribute to the continuous flow of the supply chain across the country*, ^b|*which plays an important role in economic safety and societal well-being through the uninterrupted delivery of necessary supplies for daily activities*|.
- (finite, adverbial, reason)
 - (finite, adnominal relative, non-restrictive, “which”)
- 10) On the contrary, interconnected industries pose a significant threat, ^a|*as a failure in any one system could potentially result in a cascade of failures in several other systems*|.
- (finite, adverbial, reason)
- 11) ^a|*To illustrate*|, a failure in the grid’s infrastructure could have a domino effect on the transportation system, ^b|*threatening the supply of goods and services nationwide*|.
- (non-finite, adverbial, conjunct, to-infinitive)
 - (non-finite, adverbial, circumstance, -ing clause)
- 12) Thus, these components must be studied ^a|*to develop policies* ^b|*that can effectively secure the components* ^c|*and ultimately secure the country’s critical services resilience against criminals and other emerging threats*|.
- (non-finite, adverbial, purpose, to-infinitive)
 - (finite, adnominal relative, restrictive, “that”)
 - coordination of subordinate clauses, subject and operator ellipsis, coordinator “and” (result/condition)
 - (finite, adnominal relative, restrictive, “that”)
- 13) ^a|*Encompassing a diverse array of elements*|, critical infrastructure includes essential systems such as energy, transportation, and communication networks, ^b|*each playing a significant role in national security*|.
- (non-finite, adverbial, circumstance, -ing clause)
 - (non-finite, reduced relative, -ing clause, non-restrictive)
- 14) Energy infrastructure underpins all sectors, ^a|*with power generation and distribution systems being crucial for* ^b|*maintaining operational continuity nationwide*|.
- (non-finite, adverbial, circumstance, -ing clause)
 - (non-finite, nominal, -ing clause, prepositional complement)
- 15) Transportation networks, including roads, railways, and ports, facilitate the seamless movement of goods and people, ^a|*thereby directly influencing the efficiency of the supply chain and the economy*|.
- (non-finite, adverbial, result, -ing clause)

Article 8: “I Could Have Been More Indirect”: The Influence of Occupational Socialization on Preservice and Cooperating Teachers Use of Teaching Styles in Elementary Schools

<https://doi.org/10.4236/apec.2024.144010>

- 1) The Spectrum of Teaching Styles (Mosston & Ashworth, 2002), ^a|often referred to as “The Spectrum”|, is a pedagogical theory ^b|based on the premise ^c|that physical education teaching is governed by a chain of decision making.
 - a. (non-finite, reduced relative, -ed clause, non-restrictive)
 - b. (non-finite, reduced relative, -ed clause, restrictive)
 - c. (finite, nominal, that-clause, appositive)
- 2) Decision making in the context of the spectrum is related to the “pre-impact,” “impact,” and “postimpact” decisions ^a|that are made before, during, and after the movement execution occurs|.
 - a. (finite, adnominal relative, restrictive, “that”)
- 3) The spectrum represents a continuum of 11 different teaching styles ^a|ranging from teacher centered (command style) to learner centered (learner-designed individual program style)|.
 - a. (non-finite, reduced relative, -ing clause, restrictive)
- 4) The left side of the spectrum identifies teaching styles ^a|that are more direct in nature|, such as command and practice.
 - a. (finite, adnominal relative, restrictive, “that”)
- 5) These styles are categorized as ^a|the teacher making most of the decisions in a hands-on manner|.
 - a. (non-finite, nominal, -ing clause, prepositional complement)
- 6) These direct approaches are known as the “reproduction” cluster of teaching styles, ^a|where the expectation of the learner is ^b|to reproduce **or** ^c|replicate a movement response ^d|that has been presented by the teacher|.
 - a. (finite, adverbial, place)
 - b. (non-finite, nominal, to-infinitive, subject complement)
 - i. coordination of subordinate clauses, delayed right constituent, coordinator “or” (alternative)
 - c. (non-finite, nominal, to-infinitive, subject complement)
 - d. (finite, adnominal relative, restrictive, “that”)

- 7) In contrast, the right-hand side of the spectrum contains teaching styles ^a*|that are more indirect in nature|*, such as divergent or convergent discovery.
- (finite, adnominal relative, restrictive, “that”)
- 8) The expectation within these styles is ^a*|that the learner makes most of the decisions in more of a self-guided manner;* ^b*|with the teacher transitioning to the role of a more of a hands-off facilitator|*.
- (finite, nominal, that-clause, subject complement)
 - (non-finite, adverbial, circumstance, -ing clause)
- 9) Recommendations from college and university faculty suggest ^a*|that* ^b*|implementing the spectrum framework in a PETE program| can enhance student teachers’ pedagogical skills* ^c*|while also providing them with opportunities* ^d*|to demonstrate pedagogical accountability|*.
- (finite, nominal, that-clause, object)
 - (non-finite, nominal, -ing clause, subject)
 - (non-finite, adverbial, time, -ing clause)
 - (non-finite, nominal, to-infinitive, appositive)
- 10) The prior research available suggests ^a*|that physical educators primarily employ the more direct “reproduction” teaching styles such as command, practice, and reciprocal|*.
- (finite, nominal, that-clause, object)
- 11) In addition to ^a*|understanding the preferred teaching styles* ^b*|physical educators prefer|*, it is equally as important ^c*|to identify the factors* ^d*|that influence teachers use of these teaching styles|*.
- (non-finite, nominal, -ing clause, prepositional complement)
 - (finite, adnominal relative, restrictive, zero relative)
 - (non-finite, nominal, to-infinitive, subject in extraposition)
 - (finite, adnominal relative, restrictive, “that”)
- 12) One teacher behavior framework ^a*|that has saturated physical education pedagogy literature in recent years|* is Lawson’s occupational socialization theory.
- (finite, adnominal relative, restrictive, “that”)

Appendix 2 – Tables

Table 1 – Coordination vs. subordination of clauses

| Structure | Occurrences | Percentage |
|------------------|--------------------|-------------------|
| coordination | 28 | 14% |
| subordination | 172 | 86% |

Table 2 – Coordination of main vs. subordinate clauses

| Clauses | Occurrences | Percentage |
|--------------------|--------------------|-------------------|
| main | 12 | 42,9% |
| subordinate | 16 | 57,1% |
| nominal | 9 | 32,1% |
| relative | 2 | 7,1% |
| adverbial | 5 | 17,9% |

Table 3 – Syndetic vs. asyndetic coordination

| Coordination | Occurrences | Percentage |
|---------------------|--------------------|-------------------|
| syndetic | 26 | 92,9% |
| asyndetic | 2 | 7,1% |

Table 4 – Binary vs. multiple coordination

| Coordination | Occurrences | Percentage |
|---------------------|--------------------|-------------------|
| binary | 24 | 85,7% |
| multiple | 4 | 14,3% |

Table 5 – Use of coordinators

| Coordinator | Occurrences | Percentage |
|--------------------|--------------------|-------------------|
| and | 20 | 77% |

| | | |
|-----|---|-------|
| or | 3 | 11,5% |
| but | 3 | 11,5% |

Table 6 – Functional types of subordinate clauses

| Form | Occurrences | Percentage |
|-------------|--------------------|-------------------|
| nominal | 62 | 36,1% |
| relative | 64 | 37,2% |
| adverbial | 46 | 26,7% |

Table 7 – Types of nominal clauses

| Nominal clauses | Occurrences | Percentage |
|---------------------------|--------------------|-------------------|
| finite | 18 | 29% |
| that-clauses | 13 | 21% |
| wh-interrogative | 2 | 3,2% |
| yes-no interrogative | 1 | 1,6% |
| alternative interrogative | 2 | 3,2% |
| non-finite | 44 | 71% |
| to-infinitive | 16 | 25,8% |
| -ing clauses | 28 | 45,2% |

Table 8 – Nominal clauses according to their syntactic function

| Syntactic function | Occurrences | Percentage |
|---------------------------|--------------------|-------------------|
| subject | 8 | 12,9% |
| object | 19 | 30,7% |
| subject complement | 3 | 4,8% |
| appositive | 11 | 17,7% |
| adjectival complement | 1 | 1,6% |

| | | |
|--------------------------|----|-------|
| prepositional complement | 20 | 32,3% |
|--------------------------|----|-------|

Table 9 – Types of relative clauses

| Relative clauses | Occurrences | Percentage |
|-------------------------|--------------------|-------------------|
| finite | 34 | 53,1% |
| adnominal | 34 | 53,1% |
| non-finite | 30 | 46,9% |
| -ing clause | 10 | 15,6% |
| -ed clauses | 19 | 29,7% |
| to-infinitive | 1 | 1,6% |

Table 10 – Restrictive vs non-restrictive relative clauses

| Relative clauses | Occurrences | Percentage |
|-------------------------|--------------------|-------------------|
| restrictive | 48 | 75% |
| non-restrictive | 14 | 25% |

Table 11 – The use of relativizers in finite relative clauses

| Relativizer | Occurrences | Percentage |
|--------------------|--------------------|-------------------|
| that | 20 | 58,8% |
| which | 7 | 20,6% |
| who | 1 | 2,9% |
| zero relative | 6 | 17,7% |

Table 12 – Adverbial clauses according to their structure

| Adverbial clauses | Occurrences | Percentage |
|--------------------------|--------------------|-------------------|
| finite | 17 | 36,96% |
| non-finite | 29 | 63,04% |
| -ing clauses | 19 | 41,3% |

| | | |
|-----------------------|---|--------|
| -ed clauses | 1 | 2,17% |
| to-infinitive clauses | 9 | 19,57% |

Table 13 – Semantic role of adjunct clauses

| Semantic role | Occurrences | Percentage |
|----------------------|--------------------|-------------------|
| time | 10 | 22,2% |
| place | 2 | 4,4% |
| instrument | 2 | 4,4% |
| reason | 9 | 20% |
| purpose | 8 | 17,9% |
| result | 4 | 8,9% |
| circumstance | 10 | 22,2% |