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interaction and interpretation of two adjectives in prenominal
position

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List of Abbreviations

NP.....	Noun Phrase
H.....	Head
ADJ.....	Adjective
COCA.....	Corpus of Contemporary American English
CDS	Current Discourse Space
CLASS	Classifier
EPI.....	Epithet
SD.....	Secondary Determiner
MD	Metadesignative
Adj-I	Adjective-Intensifier
N-I	Noun-Intensifier
FM.....	Focus Marker
AOR	Adjectival Order Restrictions

1. Introduction

The structure of the Noun Phrase in modern-day English has received an incredible amount of attention resulting in an overwhelming number of publications and distinct approaches to its theoretical modeling and analysis. This study focuses on one part of the noun phrase (NP), namely the premodification zone, i.e., the zone where prenominal elements like secondary determiner, adjectives and adverbs might occur. Depending on the linguistic paradigm, these prenominal elements can be grouped according to their function. While functions like EPITHET or CLASSIFIER have already been established over 30 years ago, cf., for example, a seminal publication by Halliday (1994), less acknowledged functions like, for example, METADESIGNATIVES or FOCUS MARKER, as per Davidse & Breban (2019), have only emerged recently and are thus in need for further exploration.

This study is situated in the realm of cognitive-functional linguistics. On the one hand, language is understood to be the manifestation of thought and conceptualization – an approach to language that is taken in many seminal publications concerned with cognitive linguistics (e.g., Langacker 1987, 1991, and 2008). As a consequence, this project assumes a direct link between the underlying function combination structure of prenominal adjectives and the conceptualization and interpretation thereof. On the other hand, in line with the functional aspect of this study, language is understood to be “an instrument of social interaction between human beings” (Dik 1981, p. 5); the source of a word’s position and morphosyntactic restriction(s) is rooted within its function.

There have been a multitude of publications regarding the analysis of elements situated in between a primary determiner and the head (H) of the NP. A variety of scholars have proposed zone models, i.e., models in which the premodification zone can be separated into several slots, e.g., Bache (1978); Breban (2010a); Feist (2009); Ghesquière (2014); Quirk et al (1995[1985]). Other scholars have focused specifically on individual functions or words: Paradis’ (2000) work on ‘reinforcing adjectives’; Ghesquière’s (2009) study on *specific* and *particular* as emphasizees; Davidse & Breban’s (2019) proposal of a METADESIGNATIVE function of adjectives; or Ghesquière & Davidse (2011), who focused on the sources of the NOUN-INTENSIFYING use of adjectives.

However, while various theories concerned with the order and functions of prenominal adjectives have been proposed, little attention has been paid to the interaction of prenominal elements in a NP. Since this study assumes language to be the manifestation of thought, a different linguistic realization implies a different cognitive process. Based on this, it follows

that, e.g., *red electric car* differs from *electric red car*. The NPs can, however, be abstracted into their underlying function pattern, which, considering the examples above, would result in [EPITHET + CLASSIFIER + HEAD] and [CLASSIFIER + EPITHET + HEAD]. For some word combinations, a simple rearrangement of elements might result in interpretative discrepancies (e.g., *a different red car* and *a red different car*). It can be argued that the source of such discrepancies is rooted in the underlying function structure. Therefore, the relations between functions and their influences on each other are in need for further investigation.

One intention of the study at hand is to approximate a synthesis of previous models and approaches to the functions of prenominal elements. However, due to the sheer number of publications concerned with the functions of prenominal adjectives, an exhaustive overview and an all-encompassing model goes beyond the scope of this thesis. More importantly, the main goal of this corpus-based study is to investigate the statistical distribution and interaction of the different functions of prenominal elements in a NP with an underlying structure of [(Primary Determiner) + ADJ1 + ADJ2 + H] and ultimately relating the function combinations encountered to a possible interpretation pattern. Based on this, the thesis answers the following research question: What are the functions of prenominal elements in a Noun Phrase of modern-day English and how do they interact with each other in regard to the possible interpretation patterns of the underlying structure [(Primary Determiner) + ADJ1 + ADJ2 + H]? The English variety studied is American English; the corpus analyzed is therefore the Corpus of Contemporary American English (Davies 2008-) (henceforth: COCA).

In the context of this study, the interaction of prenominal elements relates to, rather superficially, the notion of adjectival order and, as a consequence, whether certain function combinations trigger or prevent specific interpretations. Limiting the underlying structure of the NP to a maximum of two prenominal elements per query allowed for a systematic exploration of the functions by using representative words. An interpretation pattern, i.e., the deciphering processes of the NPs, visualizes every relation between the prenominal elements and their trajector(s). The visualization of cognitive processes triggered by prenominal elements is something that has received little attention in previous publications; similar notions, however, have been previously mentioned, e.g., ‘dependency structure’ (Davidse & Breban 2019; Hudson 1984).

The present thesis is structured as follows. Chapter 2 introduces previous literature concerned with analytic tools and assumptions based on Cognitive Grammar (chapter 2.1), the definition of adjectives (chapter 2.2), and the different adjectival functions (chapter 2.3). It has to be

mentioned, that the overview provided below is by no means exhaustive; it is rather a selection of theoretical notions and analytic tools which served as the basis for conducting the study at hand. Chapter 3 is concerned with the research question and addresses the several sub-questions related to the issue. The term ‘function’ is defined (chapter 3.1), the notion of interaction between multiple prenominal elements are addressed (chapter 3.2), and the tools and conventions used to depict the interpretation pattern are provided (chapter 3.3). Chapter 4 is concerned with the study design; this chapter provides an overview of the representative words (chapter 4.1) used to gather the data (chapter 4.2) and addresses the expectations and predictions for the study (chapter 4.3). In chapter 5, the main part of this thesis, the quantitative (chapter 5.1) and qualitative (chapter 5.2) results are provided and discussed. The final chapter, chapter 6, is concerned with the depiction of the interpretation pattern of the function combinations encountered. Chapter 7 concludes the thesis.

2. Theoretical Background

This chapter provides a non-exhaustive overview of theoretical notions and analytic tools taken from the linguistic paradigm Cognitive Grammar (chapter 2.1), a definition of the word class ‘adjective’ (chapter 2.2), and a compilation of previous models and definitions for adjectival functions in prenominal position (chapter 2.3).

2.1. Cognitive Grammar – Theoretical Assumptions and Important Notions

This section is concerned with the theoretical tradition this project is situated in as well as with theoretical assumptions which form the basis of this project. The current chapter does not provide an exhaustive overview into the linguistic paradigm but rather explicates certain assumptions or phenomena mentioned in the course of this thesis from the perspective of the paradigm. Furthermore, this project adapts certain notions and terms which will reoccur in future chapters; these will be explained here. Overall, the project at hand is situated in the theoretical realms of cognitive-functional linguistics. Below, the link between language and cognition, the idea and philosophy of prototypicality, and the notion of atemporal relations will be explained in detail.

2.1.1. The Cognitive Aspect of the Thesis

Since a substantial part of the project is concerned with the function, and subsequently also the order, of adjectives, it is important to note that both notions are understood as a manifestation of thought, perception and conceptualization. From this assumption, it follows that language itself is the result of multiple cognitive processes – an approach taken in the majority of

publications concerned with cognitive linguistics (e.g., Croft & Cruse 2004; Langacker 1987, 1991, and 2008; Radden & Dirven 2007). Taking this stance results in a crucial differentiation from other approaches, such as generative grammar, which understand language to be an entirely separate, autonomous module (Langacker 2008, p.8).

Since some terminology used here is rooted within functional grammar, it is important to underline this connection as well. The main tenet of functionalism is that language is a tool for communication; put differently, “a language is conceived of in the first place as an instrument of social interaction between human beings, used with the primary aim of establishing communicative relations between speakers and addressees” (Dik 1981, p.5). This project aligns with this philosophy in so far that it assumes the function of a word to be the source for its position and morphosyntactic restrictions rather than the other way around. This means that, despite being circular, an EPITHET does not have its function due to the morphosyntactic restrictions, but the morphosyntactic restrictions are a byproduct of the word’s use as an EPITHET.

Applying, very superficially, these two main notions to a noun phrase with multiple prenominal elements, it can be suggested that an utterance like, for example, *red electric car* does two things: first, it reflects the speaker’s conceptualization of the world around them; second, this utterance is assumed to be constructed in an efficient manner, so that the listener is able to easily grasp the speaker’s communicative intent. It can thus be argued that a re-arranged noun phrase (in this case: *electric red car*) is either an entirely different conceptualization, or, if expressing the identical conceptualization as above, not efficiently constructed in relation to its communicative intent. At the receiving end of the communicative act, the utterance triggers, with minimal cognitive effort, a certain interpretation pattern which, in an optimal scenario, results in a similar conceptualization to that of the speaker.

Ultimately, the goal of this thesis is to explore the schematic combination patterns of the different functions of prenominal adjectival modifiers. Reduced to such functions, the noun phrase *red electric car* can, according to, for example, a zone-model introduced by Feist (2009), be represented by the combination pattern [EPITHET + CLASSIFIER + HEAD]. Assuming optimal communicative efficiency, this combination, and every other combination of functions, represents (in the speaker’s mind) and triggers (in the listener’s mind) a certain interpretation pattern that accurately evokes the ‘correct’, i.e., intended, conceptualization. In other words, this project assumes that the underlying function combination gives meaning to the prenominal elements inserted into that pattern.

Despite the circularity of the claim – the function determines the semantics of the word, but not all words can be used in every function due to intrinsic lexical semantic restrictions – this issue deserves further investigation. The validity of one claim does not automatically invalidate the legitimacy of the other; both might be true at once. On the one hand, the lexical semantics, or the meaning potential, of the adjective *electric* allow it to function as both EPITHET and CLASSIFIER. On the other hand, the underlying function structure of *red electric car* (*electric* as in ‘powered by electricity’) and *electric medieval festival* (*electric* as in ‘exciting’) only allow for one of the two interpretations of the adjective. Similarly, the prenominal element *different* can function as a SECONDARY DETERMINER (meaning ‘another’) or an EPITHET (meaning ‘not like the others’). Again, it is the underlying structure – either [SECONDARY DETERMINER + CLASSIFIER + HEAD] or [EPITHET + CLASSIFIER + HEAD] – which triggers the permissible interpretation, which becomes evident when we consider ambiguous noun phrases like, for example, *different electric car*.

2.1.2. Prototypicality

As will become evident in later chapters, a discussion about word categories, their morphological, syntactic, and semantic features, and their functions in larger units such as phrases or sentences cannot yield valuable findings without delineating the element of interest first. Unfortunately, it is by no means an easy matter to unambiguously define linguistic elements. Since it is arguably impossible to agree on a definition (something rather static) of word categories of a language (something rather dynamic and constantly evolving), many cognitive linguists refer to the concept of Prototypicality as coined by Eleanor Rosch (cf., Rosch 1975, 1978). The prototypicality of adjectives will be described in chapter 2.2.1 below. This section justifies the application of the notion of prototypicality/centrality, especially in light of the general study of language.

The following quote, taken from Rosch (1978), is concerned with two basic principles of category formation:

Two general and basic principles are proposed for the formation of categories: the first has to do with the function of category systems and asserts that the task of category system is to provide maximum information with the least cognitive effort; the second has to do with the structure of the information so provided and asserts that the perceived world comes as structured information rather than as arbitrary or unpredictable attributes. (Rosch 1978, p. 92)

Essentially, the first principle states that, by employing categories, cognitive effort can be reduced, while simultaneously maximizing information input. I would argue that, especially in

regard to word categories, this categorization process almost always includes generalization. The second principle relates to the fact that, by categorizing and consequently generalizing the cognitive input, experiences can be structured, processed, and essentially analyzed more easily. While the quote above does not explicitly mention language and the study thereof, it still provides important tenets for linguistics. After all, in order to study language, the uncountable elements that make up language need to be grouped and categorized. By doing so, the overwhelming input appears less arbitrary, more analyzable, and more structured.

In order to study the functions of prenominal adjectives, language first needs to be generalized to a level at which a prototypical element in prenominal position can sufficiently be defined. On the one hand, this inevitably involves deleting or ignoring important information, e.g., that some prenominal elements are not gradable, or that some cannot be put in predicative position, etc.; on the other hand, it enables the discussion in the first place by providing the tools to delineate the object(s) of interest. A linguistic generalization can then further be divided into subcategories which can again be further divided, so on and so forth; at any level of abstraction, the prototypical features of that category can be explored and described, which establishes a systematic and controlled environment for the study of non-prototypical manifestations. It appears, at first glance, to be a redundant or paradoxical step, but in order to study the exceptions, the exceptions have to be ignored, and the prototypical occurrences need to be in focus first.

In other words, defining the prototypical adjective involves the preliminary neglect of non-prototypical adjectives but enables the systematic study of adjectives in the first place, which, in turn, later enables the exploration of non-prototypical adjectives. Similarly, prenominal elements are generally understood to be adjectives, yet there are elements which morphologically resemble a verb or semantically approximate the function of a determiner. In order to study the non-prototypical prenominal elements, the features of a prototypical prenominal element need to be established. I would argue that this pattern is, at least in terms of prenominal adjectives, identifiable in the literature. Earlier publications focused on the more prototypical functions and elements in attributive position (cf., 1978; Dixon 1982; Halliday 1994; Quirk et al. 1995 [1985]) paving the way for the current literature to study less prototypical prenominal elements like METADESIGNATIVES (Davidse & Breban 2019), or FOCUS MARKER (Davidse 2022; Davidse & Breban 2019).

Aiming to define any prototype raises, consequently, two questions: how does one define a prototype and what is a prototype. Prototypes are defined as “the clearest cases of category membership defined operationally by people’s judgments of goodness of membership in the category” (Rosch 1978, p. 98). In addition, it must be noted that “the extent to which items have attributes common to the category was [shown to be] highly negatively correlated with the extent to which they have attributes belonging to member of contrast categories” (Rosch 1978, p. 98). Put differently, questioning whether, for example, *intelligent* is prototypical adjective or not depends on two factors. First, it is an empirical matter: the more people understand *intelligent* to be a good member or example for an adjective, the more of a prototype it is. Second, the relationship between two individual categories appears to be inversely proportional: concerning the example *intelligent*, the fewer features it shares with a prototypical adverb, noun, or verb, the more of an adjectival prototype it is.

In terms of linguistic studies, prototypes or the prototypicality of something is not a matter of establishing the perfect prototype or questioning how far, for example, *intelligent* is away from the prototypical adjective. It is merely a generalization of language used as a tool to categorize and analyze utterances. As Rosch put it: “[t]o speak of a *prototype* at all is simply a convenient grammatical fiction; what is referred to are judgments of degree of prototypicality” (Rosch 1978, p. 101). As Crystal (1967, p. 208) put it, forcing a rigid categorization of words necessitates “turning a blind eye to important points of distributional dissimilarity”, which inevitably leads to descriptive inadequacy. Approaching adjectives and prenominal elements by generalizing language enables a wider range of analyzable utterances and a more detailed discussion of less prototypical examples, instead of focusing on terminological discrepancies and legitimacy of class membership.

2.1.3. Atemporal Relations

Cognitive Grammar defines basic categories of words according to their semantic meaning, not only in a prototypical sense – nouns represent things, verbs express actions, adjectives denote properties, etc. – but on a schematic level, i.e., representing all members of the defined group (Langacker 1987, p. 189; 2008, p. 95). In light of this project, this section focuses on the theoretical description of atemporal relations, i.e., the group including what is traditionally referred to as adjectives. However, in order to understand this notion properly, one has to put the semantically definable content of adjectives into a wider perspective, including the definition of nouns and verbs. Afterwards, the notions of Trajector and Landmark will be

introduced as an analysis tool with the help of which adjectives can be distinguished from prepositions, adverbs and verbs.

Without going into too much detail, it is generally understood that nouns, or nominal predications, profile a thing. A thing is defined as “a region in some domain” (Langacker 1987, p. 189) or “any product of grouping and reification” (Langacker 2008, p. 106). This schematic definition is in direct opposition to that of relational predications, i.e., “dependent conceptual units that link two or more things and tend to be short-lived, i.e., have a lower degree of time stability than things” (Radden & Dirven 2007, p. 42). Verbs are said to express relations through time (cf., Langacker 1987, p. 245; 2008, p. 108), while adjectives designate atemporal relations (cf., Langacker 1987, p. 214).

Since the above-mentioned definitions are very general, the notion of atemporal relation is best understood by comparing it to its counterparts, i.e., a nominal predication profiling a thing and a processual predication of positive temporal profile. Langacker (1987, p. 216) provided an example that juxtaposes the nominal use and the adjectival use of the word *red*. The nominal use of *red*, as in “Red is a warm color”, “designates a region in color space”; somewhere on the spectrum of colors is a region that can roughly be identified as ‘red-ness’ (Langacker 1987, p. 216). The adjectival use of *red*, as in *this bike is red* profiles the same region as the nominal use, but it “is relational and locates a second profiled entity [...] within this region”, in this case, *the bike* (Langacker 1987, p. 216). The thing is put in relation to the profiled region and identified as having the property of said region, i.e., the bike has the quality of red-ness.

A temporal relation is the compilation of different states over a certain time. Langacker mentions that “[i]t involves a continuous series of states representing different phases of the process and construed as occupying a continuous series of points in conceived time” (1987, p. 244). In other words, a temporal relation expresses the different states of two (or more) profiled entities that are evaluated over time, from time A to time B. Consider, for example, the verbal and adjectival use of the word *empty*. The adjectival use of *empty* in *the glass is empty* designates a region within the space of ‘full-ness’, in this case the value of ‘full-ness’ is 0, and relates the second profiled entity, *the glass*, to said region. The verbal use of *empty* in *I empty the glass* profiles the same region and the same second entity but also expresses the process that is taking place over the course of time, i.e., the different states of the two entities’ relation to each other. The verbal use of *empty*, in this case, communicates that the state of ‘full-ness’ of the glass decreases over time, ultimately ending up in the designated region of ‘full-ness’ that

is valued 0. Once the glass can be located in that region of 0 ‘full-ness’ it can be considered empty (in its adjectival use), but not before that.

When a relation is profiled, the entities that are put in relation to each other receive different levels of conversational focus or salience. The Trajector/Landmark alignment is an analytic tool that allocates the degree of prominence to the participants of the profiled relationship (Langacker 2008, p. 71). The trajector receives primary focus and is the entity that is, for example, located in a space; the landmark receives secondary focus and is “[...] providing points of reference for locating the trajector” (Langacker 1987, p. 217).

Adjectives are said to denote properties to a noun; their prototypical trajector is therefore a thing (Langacker 2008, p. 116). Furthermore, adjectives are considered to only have a single trajector and no landmark (Langacker 2008, p. 116). However, in a previous publication, Langacker has argued that the landmark of adjectives is the region which is also designated by their nominal use; in *the bike is red* above, the trajector *bike* would be put in relation to the landmark of the specific region in color space (cf., Langacker 1987, p. 216). Adverbs can profile a verb, an adjective, a preposition or another adverb. The crucial difference between adjectives and adverbs is their trajector: the trajector of adjectives is a thing; for an adverb it is a relationship (Langacker 2008, p. 116). A preposition can have both, a thing or a relationship as its trajector but prototypically a thing as its landmark (Langacker 2008, p. 116).

2.2. Prenominal Elements – Adjectives and Participles

Within this project, (present and past) participles and adjectives are grouped under the term ‘prenominal elements’ due to the fact that the literature does not unambiguously agree on whether participles are adjectives or not¹. This section is concerned with the prototypicality of adjectives and the features that define them. Furthermore, different stances on the discussion of deverbal adjectives, i.e., adjectives in verbal form (ending in *-ed* or *-ing*), will be introduced. Finally, by approaching them from a Cognitive Grammar perspective, it will be argued why past and present participles can be grouped together with what are traditionally referred to as adjectives.

¹ Huddleston & Pullum (2002) acknowledge that verbs are “clearly distinct from adjectives” but mention that “with the gerund-participle and past participle forms problems arise, for there are many adjectives that are homophonous with these forms of verbs”, thus implying that deverbal adjectives cannot be considered adjectives as defined here (2002, p. 540). Similarly, Quirk et al. (1995[1985]) treat, rightfully so, participles as their own categories with their own respective restrictions; it is only implied that these verbal forms function as an adjective instead of being one themselves (cf., Quirk et al. 1995[1985], pp. 1325-1330).

2.2.1. Prototypicality of Adjectives

As mentioned in chapter 2.1.2 above, this project will make use of the notion of Prototypicality as coined by Rosch (cf., Rosch 1975, 1978). Therefore, defining a word category such as adjectives is a matter of applicability of prototypical features (what are the prototypical features of an adjective) and gradience (less prototypical adjectives are still considered adjectives). As a reminder, a prototype is not the most optimal, real example but rather an optimized grammatical abstraction of language to approach and study real and fictional utterances (cf., Rosch 1978, p. 101).

In general, word categories can be defined based on a combination of semantic, morphological, and syntactic features. To provide a preliminary, superficial summary: semantically, adjectives denote properties; morphologically, they take certain adjective-exclusive suffixes; syntactically, they can occur in prenominal, predicative or postpositive position (cf., Huddleston & Pullum 2002). Below, each of the identification criteria and the prototypical features will be explained in more detail.

While the general literature agrees that adjectives denote properties, some authors made an effort in providing an overview of the type of semantic content adjectives denote. Huddleston & Pullum (2002), for example, observe that adjectives typically denote properties “in the domain of size, shape, colour, worth, and age” (2002, p. 527). Dixon, in his cross-linguistic study from 1982, discovered seven semantic domains of adjectives: dimension, physical property, color, human propensity, age, value, and speed (Dixon 1982, p. 16). However, especially in light of the function of prenominal adjectives, the semantic content of adjectives is much more diverse than a list could encapsulate². The semantic content communicated by the prenominal element is essentially a combination of the actual function the element realizes and the semantic potential of the word itself. The semantics of each of the seven functions addressed in this paper will be elaborated in the respective sections below.

Morphologically, according to Quirk et al., certain suffixes can generally only be realized by adjectives, for example, *-less*, *-able*, *-ful*, *-ish*, *-ous*, *-ic*, *-al*, and *-y* (Quirk et al. 1995 [1985], p. 402). Morphosyntactically, adjectives can occur in prenominal, predicative or postpositive position, are intensifiable, and can take comparative and superlative form (Huddleston & Pullum 2002, p. 528; Quirk et al. 1995 [1985], p. 402). Some syntactic features of adjectives are also applicable to other word categories but are nevertheless essential for defining the class

² For a more detailed list, see Alexiadou (2007: 311), with reference to Sproat & Shih (1987, 1991).

itself (cf., for example, ‘characteristic features of adjectives’ based on Quirk et al. 1995 [1985] below where the authors make a distinction between necessary and sufficient features). In fact, based on the notion of prototypicality, some authors (Crystal 1967, p. 207; Quirk et al. 1995 [1985], p. 403) have suggested to identify adjectives based on the combination of possible morphosyntactic features of adjectives. Depending on which and how many of those criteria an item satisfies, its word category and status of centrality/prototypicality can be evaluated.

Quirk et al. (1995 [1985]) provide an adjective-adverb gradience model that displays the relation between the two parts of speech based on four characteristic adjectival features. Below are the four characteristic features demonstrated by the word *intelligent*; according to the authors, the first two features are considered central adjectival features (Quirk et al 1995 [1985], pp. 402–404):

- a) the element can occur in attributive position – e.g., an **intelligent** person
- b) the element can occur in predicative position – e.g., the person is **intelligent**
- c) the element can be intensified by *very* – e.g., a very **intelligent** person
- d) the element can take comparative and superlative forms – e.g., the more/most **intelligent** person

Based on these four features, the authors visualized the fuzzy boundary between adjectives and adverbs. Table 1 below is taken and adapted from Quirk et al. 1995 [1985] (p. 404). The authors consider the first two examples in Table 1, *hungry* and *infinite*, to be central adjectives since they fulfill criteria (a) and (b) above; examples 3–6 are peripheral adjectives; *soon* and *abroad* are defined as adverbs (Quirk et al. 1995 [1985], p. 404).

Table 1. Word Class Gradience: Adjectives vs. Adverbs (Quirk et al. 1995 [1985], p. 404).

#	Element	(a)	(b)	(c)	(d)	Word Class
1	hungry	+	+	+	+	Central Adjectives
2	infinite	+	+	-	-	
3	old	+	-	+	+	Peripheral Adjectives
4	afraid	?	+	+	+	
5	utter	+	-	-	-	
6	asleep	-	+	-	-	
7	soon	-	-	+	+	Adverb
8	abroad	-	-	-	-	

Crystal (1967) also demonstrated the partial overlap of English adjectives and adverbs but suggests, in addition to the four above-mentioned morphosyntactic features (cf., (a)–(d) in Table 1 above), a fifth feature. Since the author also depicts the gradience of classes with the help of

a table in which the grammatical features are rearranged compared to the one provided in Quirk et al. 1995 [1985] (p. 404), the five features used by Crystal (1967, p. 207) are listed below. Furthermore, Table 2 below is taken and adapted from Crystal 1967 (p. 207) and depicts, again, the fuzzy boundary between adjectives and adverbs. The author states that “[c]entral’ adjectives, then, may be defined as all words which satisfy all of the following criteria [i.e., (e)–(i)]” (Crystal 1967, p. 207). Note that this definition is different compared to the one provided by Quirk et al. (1995 [1985]) above.

- e) the element can form an adverb by adding the suffix *-ly*
- f) the element can, within a NP functioning as a subject, inflect for degree
- g) the element can, within a NP functioning as a subject, take intensifiers (e.g., *very*)
- h) the element can occur in attributive position
- i) the element can occur in predicative position

Table 2. Word Class Gradience: Adjectives vs. Adverbs (Crystal 1967, p. 207).

	Element	(e)	(f)	(g)	(h)	(i)
1	hard, kindly, low	?+	+	+	+	+
2	old, young, fast, big, poorly, small	-	+	+	+	+
3	top, bottom	-	-	+	+	+
4	inside, downstairs	-	-	-	+	+
5	one, two, etc.	-	-	-	+	+
6	alike	-	-	-	-	+
7	asleep	-	-	-	-	+

At some point on the adjective-adverb scale in Table 2 above, an element behaves too differently compared to central adjectives to call it ‘adjective’ at all (Crystal 1967, p. 207), while at the same time heavily deviating from the pattern of central adverbs. The author does not explicitly mention where that realm of ambiguity is, simply because that is by no means an obvious matter. However, Crystal states that “the safest course seems to be to take these words as a series of overlapping ‘bridge-classes’, and not to force them into either the adjective or adverb class” since that would require one to ignore non-prototypical linguistic elements, which, over the course of time, would lead to descriptive inadequacy (Crystal 1967, p. 208).

While Huddleston & Pullum (2002) do not address the notion of fuzzy boundary or gradience between word classes, the authors still define prototypical or central features of adjectives. According to the authors, “central members of the adjective category have the cluster of syntactic properties given in [(j), (k), (l) below]” (Huddleston & Pullum 2002, 528); they elaborate that none of these features is adjective-exclusive and that they are not shared by all

adjectives. The features below, taken and adapted from Huddleston & Pullum (2002, p. 528), largely correlate to the central features defined by Quirk et al. (1995 [1985]) and Crystal (1967) above.

- j) Position – the element can appear in attributive, predicative, and postpositive position
- k) Gradability – the element is gradable, accepts degree modifiers, and has comparative and superlative forms
- l) Dependents – the element prototypically takes adverbs as modifiers

At this point, a very important clarification has to be made. I have thus far referred to the attributive, predicative, and postpositive use of adjectives as ‘position’. Quirk et al. (1995 [1985]), as well as Huddleston & Pullum (2002) sometimes refer to these phenomena as ‘function’, cf., “[adjectives] can freely occur in attributive function” (Quirk et al. 1995 [1985], p. 402), and “[t]he three main functions: attributive, predicative complement, and postpositive” (Huddleston & Pullum 2002, p. 528). While the term ‘function’ may arguably be more accurate, the term ‘position’ clearly distinguishes the syntagmatic position of the adjective from the actual functions that adjectives in attributive position can have, i.e., CLASSIFIER, EPITHET, etc.

2.2.2. Deverbal Adjectives

This section is concerned with prenominal elements that morphologically resemble a verb. Examples like *rising star*, *losing battle*, *cooked meal*, and *boiled egg* all include either a present participle or a past participle. The issue, whether those elements can be considered adjectives or not, will be explored in this section by referring to previous literature.

Bache (1978) is one of the earliest publications that attempted to categorize the pre-head realm of an NP into zones. The author essentially allocated prenominal elements to one of three possible modificational zones based on the elements’ morphosyntactic restrictions and semantic content. Based on his distinctions, Bache (1978) mentions that the morphological forms, present and past participle, are used as an adjective, sometimes functioning as central adjectives in zone II and, if morphosyntactically restricted, functioning as zone-III modifier (Bache 1978, p. 35). On a similar note, Halliday (1994) also restricts the applicability of those participles to two functions, namely EPITHET and CLASSIFIER (1994, pp. 164-165). Halliday’s distinction, however, is not based on morphosyntactic restrictions, but rather on the semantic content correlating to the respective functions.

Quirk et al. (1995 [1985]) note that whether or not a present participle can function as a prenominal modifier depends on the longevity of the feature expressed by the participle (1995 [1985], p. 1325). In other words, the participle must express a long-lasting characteristic feature

in order to function as a prenominal modifier. Therefore, the NP *an interesting person* can only refer to someone who, for example, always tells good stories and manages to entertain their peers but never to a person who happens to be interesting only at this very moment (Quirk et al. 1995 [1985], pp. 1326).

Some of the restrictions of present participles also apply to past participles but the latter can express various meanings. Firstly, they may express active meaning (e.g., “retired teacher”) or, secondly, passive meaning (Quirk et al. 1995 [1985], p. 1327); cf., also Huddleston & Pullum 2002, p. 78). Note that the passive meaning can further be distinguished into processual, e.g., *the broken vase*, and statal, e.g., “the complicated machinery” (Quirk et al. 1995 [1985], p. 1327). Thirdly, some prenominal elements ending with *-ed* may not be deverbal but instead denominal, e.g., “a bearded man” as in “a man with a beard” (Quirk et al. 1995 [1985], p. 1327).

Albrespit (2020) conducted a study in which he analyzed the word class of past participles seemingly functioning as an adjective. The author provides a very detailed taxonomy of past participles as alleged adjectives and investigates their status of ‘stabilization’ into adjectives – ‘stabilize’ or ‘stabilization’, in this case, refers to whether the co-speaker can identify the element unambiguously as an adjective or not (Albrespit 2020, p. 2). Albrespit claims that, due to residuals of agentivity in the past participle and the resulting change of state, the change from verb to adjective is incomplete; semantically, a change of state within the participle can still be evoked by adding, for example, an adverb (2020, pp. 26-28), as in *boiled water* and *recently boiled water*. However, the author seems to neglect the position of the past participle in relation to the head of the NP (*boiled water*, *water is boiled*, and *water boiled in a kettle*).

In terms of Cognitive Grammar, and consequently in this thesis, present and past participles are considered adjectives. As mentioned in chapter 2.1.3 above, atemporal relations define a state. While the base for construals by past and present participles is a processual predication due to their deverbal nature, the present participle takes an ‘interior’ and the past participle a ‘posterior’ perspective on the processual predication (cf., Langacker 2008, p. 120; 1987, p. 221). Langacker argued that “the formation of a participle [...] has the effect of atemporalizing the process designated by the verb it derives from” (Langacker 2008, p. 122). Consider, for example, *emptied*, the past participle of the verb *to empty*. At the basis of the participle is the processual predication in which the trajector, over time, approximates and ends up in the region of ‘fullness’ of value 0, i.e., being empty. The past participle, despite referring to the process, expresses a non-processual state, namely that in which the process is done and observed in hindsight. In other words, the NP *an emptied bottle* refers to a bottle which has been emptied (process) and

is now, as a result, empty (state). The difference between *empty bottle* and *emptied bottle* is that the latter NP elaborates on the process that led to the state.

2.3. Functions of Prenominal Adjectives

This section will summarize some of the previous literature concerned with the individual functions of prenominal adjectives. In total, seven different functions will be explored, namely CLASSIFIER, EPITHET, ADJECTIVE-INTENSIFIER, NOUN-INTENSIFIER, METADESIGNATIVE, and FOCUS MARKER. These functions are mainly based on Davidse & Breban (2019). Below, similar notions that occurred in the literature under different terminology will be grouped together under the terms taken and adapted from Davidse & Breban (2019). In general, this project aligns with the definitions provided by Davidse & Breban (2019); nevertheless, other definitions and terms are discussed as well to provide an overview of the general literature.

2.3.1. Classifier

CLASSIFIERS, the classifying function or classification zone, are relatively well explored in literature concerned with prenominal elements. Semantically, CLASSIFIERS indicate a subcategory or -type of the H of the NP thus further defining the entity referred to (Halliday 1994, p.164; cf., also: Davidse & Breban 2019; Feist 2009; Ghesquière 2009, 2014; Matthews 2014). Morphosyntactically, CLASSIFIERS are restricted to attributive position and are not intensifiable or gradable (Halliday 1994, p. 164; cf., also Ghesquière 2014, p. 27). Other authors that have not explicitly used the term ‘Classifier’ but identified the semantic and morphosyntactic features are, for example, Adamson (2000), Bache (1978), Breban (2010a) and Radden & Dirven (2007). While Adamson (2000) refers to the phenomenon as a ‘classifying function’, Radden & Dirven (2007), as well as Bache (1978), use rather different concepts/systems which entail, however, a similar phenomenon. Some of the features of Bache’s (1978) ‘Modification Zone III’ correlate to those of CLASSIFIERS: they are usually not comparable or intensifiable; they tend towards attributive position (for some, predicative position is impossible); they “categorize or classify” rather than describe the entity referred to (Bache 1978, p. 37). Radden and Dirven mention a similar but much more restricted type of adjectives in attributive position, namely ‘denominal adjectives’, which, semantically, “have a distinctly categorising function” (Radden & Dirven 2007, p. 152).

Special attention has to be paid to Ghesquière’s (2014) ‘functional-cognitive zone model of the English noun phrase’ and Breban’s (2010a) ‘dynamic functional model of the NP’. The authors both propose to merge the zone that includes the H of the NP with the one that includes

CLASSIFIERS (cf., Breban 2010a, p.35; Ghesquière 2014, p. 26); this way “[a]ll the elements contributing to the delineation of the class of entities referred to are then viewed as constituting one functional-structural zone, irrespective of word class membership” (Ghesquière 2014, p. 26). When providing an overview of possible interpretation patterns (cf., chapter 3.3), this stronger connection between the CLASSIFIER and the H of the NP, compared to, e.g., EPITHET or SECONDARY DETERMINER and H, will be indicated in the depictions by square brackets. This distinction is important since CLASSIFIERS behave differently from other functions in terms of morphosyntax, semantics and overall deconstruction or interpretation in relation to the H of the NP, as will be made apparent in the sections below.

Jim Feist’s 2009 zone model of the English NP is mainly based on the one proposed in Quirk et al. 1995 [1985]. While Feist employs the term ‘Classifier’ as described above (2009, p. 311), Quirk et al. refer to the right-most zone as ‘pre-head zone’ (1995 [1985], p. 437). As will be elaborated below, these two models cannot simply be compared to the ones in, for example, Ghesquière 2014 or Breban 2010a, since Feist 2009 and Quirk et al. 1995 [1985] are heavily based on semantics (rather than the functional aspects) of a word. This becomes evident when taking a closer look at the description of the pre-head zone by Quirk et al.: “[t]his zone includes the ‘least adjectival and the most nominal’ items, such as denominal adjectives [...] denoting nationality [...] and denominal adjectives with the meaning ‘consisting of’, ‘involving’, ‘relating to’ [...]” (p. 437). Nevertheless, some of the aspects of the models mentioned in both publications correlate with the functional models mentioned above, which is why they need to be included in the discussion.

2.3.2. Epithet

Halliday (1994) defines EPITHETS as “indicat[ing] some quality of the subset, e.g., *old*, *long*, *blue*, *fast*.” (p. 163); in general, this definition is also the one adopted in this thesis. While the overall concept is acknowledged in the general literature concerning prenominal elements, the terminology might differ in the individual publications. Some authors adopted both the terminology and the notion behind it (cf., Davidse & Breban 2019, Matthews 2014, Vandelanotte 2002), while others subscribed to or identified the notion but employed different terminology like ‘modification zone’ in Ghesquière (2014, p. 28), ‘quality attribution zone’ in Breban (2010a, p. 35), or ‘characterising function’ in Radden & Dirven (2007, p.154).

Bache (1978) already identified the semantic and morphosyntactic features of epithets; however, the author did not refer to those adjectives as ‘epithets’ but rather, due to the nature of his model,

as ‘Modificational Zone II’-adjectives (1978, p. 33). According to Bache, those adjectives “can be compared”, “may appear predicatively”, and “semantically, [...] ‘describe’ or ‘characterize’ rather than ‘define’ or ‘specify’ the head of the construction [...]” (1978, pp. 33–34). These semantic and morphosyntactic features are also explicitly addressed in Davidse & Breban (2019, pp. 341–342). As the authors mention, semantically – and this is the crucial distinction from Classifiers in regard to the theoretical framework of Cognitive Grammar – “[epithets] differ from the classifier in that [they do not] narrow down the general entity-type denoted by the head, but ascribe a *property* to the *instance* referred to” (Davidse & Breban 2019, p. 341).

As with CLASSIFIERS above, Feist (2009) must be addressed separately since his zone-model is mainly based on semantics. While Feist (2009) utilizes the term ‘epithets’, the author makes a clear distinction between epithets and what he refers to as, ‘descriptors’. The main argument is that “Epithets are distinct from Descriptors and Classifiers in being gradable (more strictly, scalar), and in being able to take expressive and social meaning” (2009, p. 320). A distinction as such can be valid, especially if the observed pattern correlates to the hypothesis. However, from the article itself and the examples mentioned in it, it is not entirely clear as to why, e.g., the descriptor *young* in “a brilliant young player” (Feist 2009, p. 319) should not be gradable. Feist (2009) mentions that descriptors have concrete meaning, i.e., denoting a “concrete quality or state” (p. 317), while epithets predominantly denote a more abstract meaning which “can be seen clearly in their contrast with the Descriptor use of the same words” (p. 321). This argument, despite being somewhat circular, may be argued to be solid in relation to the word *byzantine*: as a descriptor it relates to the concrete, physical attributes; as an epithet it relates to the abstract qualities, which are, in reality, merely the connotative meanings (here: “complicated, inflexible, underhand”) (Feist 2009, p. 322). With *young* an analysis as such seems comparatively less applicable. The author fails to explain, at least explicitly, why *young* in “a brilliant young player” is ungradable. I argue that, by taking comparative or superlative form alone, *young* does not automatically take expressive or social meaning, neither does it stop denoting concrete, physical attribution. The line between ‘descriptors’ and ‘epithets’ is therefore, based on this reasoning, rather unclear in some examples.

Even though Feist (2009) is based on the order provided in Quirk et al. (1995 [1985]) (cf., Feist 2009, p. 304), Quirk et al.’s (1995 [1985]) zone model leaves less room for discussion. The notion of EPITHETS as defined in this project is, by Quirk et al., technically subdivided into two zones, namely the ‘central zone’ and the ‘post-central zone’ (1995 [1985], p. 437). While the distinction of two zones by Feist (2009) is based on the semantics of the elements, Quirk et al.’s

distinction is additionally based on word class; the central zone includes prototypical adjectives, while the post-central zone includes deverbal adjectives, i.e., participles, and adjectives denoting color. As the authors write: “[the central zone] is the place of the central adjectives, i.e., the ‘most adjectival items’, which satisfy all four criteria for adjective status [...]”; “[the post-central zone] includes participles [...] and colour adjectives (Quirk et al. 1995 [1985], p. 437).

2.3.3. Secondary Determiner

SECONDARY DETERMINER is the left-most positioned function of prenominal elements in the English NP. As with the other functions, the phenomenon can be encountered under different terms. Halliday (1994), for example, utilizes the nomenclature ‘post deictic’ or ‘deictic²’ (p.162); Radden & Dirven refer to the notion as ‘determining adjectives’ (2007, p. 153); Dixon, though he does not mention them explicitly, presumably includes what is here referred to as SECONDARY DETERMINERS in a group named ‘pre-adjectival modifier’ (1982, p. 24). Ghesquière (2014) and Breban (2010a), since both publications propose a zone model of the English NP, allocate SECONDARY DETERMINERS to their ‘Determination Zone’ (Breban 2010a, p. 35; Ghesquière 2014, p. 44). Similarly, within Bache’s zone model, SECONDARY DETERMINERS can be found in ‘Modification Zone I’ (1978, p. 32). Quirk et al. employ the term ‘postdeterminers’ and explain that these “follow predeterminer or central determiners (if such determiners are present). But they precede any adjectives and other premodifying items [...]”, (1995 [1985], p. 261). At this point, it is important to underline that this project aligns itself with Huddleston & Pullum (2002) regarding the distinction between the terms ‘determiner’ and ‘determinative’: “Note then that we distinguish between determiner, a function in the structure of the NP, and determinative, a word-category” (2002, p. 330).

The semantic function of SECONDARY DETERMINERS is closely related to that of the (primary) determiner, and they thus contribute to the identification of the instance referred to (Davidse & Breban 2019, p. 351), a definition which, regardless of nomenclature, the general literature seems to agree on (cf., Bache 1978; Breban 2010a; Ghesquière 2014; Halliday 1994; Radden & Dirven 2007). Morphosyntactically, SECONDARY DETERMINERS cannot be coordinated with EPITHETS (cf., Bache 1978, p. 32), which leads to the non-permissibility of an EPITHET preceding a SECONDARY DETERMINER. The insertion of an EPITHET to test the function of the possible SECONDARY DETERMINER has been noted by Davidse & Breban (2019, p. 353) and, though not explicitly, Dixon (1982, p. 25). Additional morphosyntactic restrictions are their

inability to appear in predicative position and the impossibility to grade or intensify them (Bache 1978, p. 32; Davidse & Breban 2019, p. 352).

The literature concerned with the notion of SECONDARY DETERMINERS has explicitly discussed the legitimacy of both the term ‘postdeterminer’ and the function of them. Van de Velde (2009), for example, claims, on the basis of a diachronic study, that the terminology ‘postdeterminer’ is based on arbitrary distinctions and that ‘postdeterminer’ are amidst the process of losing their adjectival features while approximating those of a determiner (Van de Velde 2009, p. 318). In relation to that publication, Breban (2010b) agrees with the fact that postdeterminers do not constitute a separate slot in the NP but argues that the argumentation leading to it, i.e., the claim in Van de Velde’s (2009) diachronic study, is flawed (Breban 2010b, p. 252). This decision, not to dedicate a separate slot to postdeterminers, is realized in another publication (Breban 2010a), in which the author essentially merges prenominal elements of the function SECONDARY DETERMINERS into the ‘Determination Zone’, as mentioned above (cf., Breban 2010a, p. 35). Whether or not SECONDARY DETERMINERS are in need for a separate slot/zone or not is not addressed in this project. It is evident, however, that prenominal elements can have such a function; their position in a NP with multiple adjectives and especially their interaction with other prenominal elements is in need for further investigation.

2.3.3.1. Possible Impact on Epithets and Classifiers: Re-Analysis?

This section is concerned with the interaction of SECONDARY DETERMINERS with CLASSIFIERS and/or EPITHETS and the resulting problems regarding (re-)analysis of the functions of prenominal elements. It is convenient to address these issues at this point, since SECONDARY DETERMINERS serve well as the starting point for discussing these issues. In previous projects, I assumed the line between EPITHETS and CLASSIFIERS to be blurry, even going as far as claiming that an EPITHET can be re-analyzed as a CLASSIFIER under certain conditions. As stated above, semantically, a CLASSIFIER indicates a subcategory or -type of the H of the NP thus further defining the entity referred to (Halliday 1994, p.164). Based on this, I previously hypothesized that, especially when preceded by a SECONDARY DETERMINER, an EPITHET may refer to an established subtype of an entity³. Based on this argumentation, in the NP *other intelligent people*,

³ This approach assumes that an EPITHET positioned between a SECONDARY DETERMINER and a CLASSIFIER would always function restrictively, i.e., further contributing to the identification of the instance referred to. This is not necessarily the case since EPITHETS may function descriptively, i.e., merely ascribing a property to the instance referred to.

intelligent would function as a CLASSIFIER since the SECONDARY DETERMINER *other* alludes to the existence of multiple sets of intelligent people only one of which is referred to by that NP.

Before continuing this debate and arguing as to why it is not too far-fetched to hypothesize such an analysis, it is important to clarify that the re-analysis of an EPITHET to a CLASSIFIER cannot be maintained. This is, amongst other reasons, due to the morphosyntactic criteria of a CLASSIFIER. As mentioned above, an EPITHET may appear in predicative position and may be compared (Bache 1978, p. 33). A CLASSIFIER is restricted to attributive position and cannot be graded or intensified (Halliday 1994, p. 164). Based on this, it follows that *intelligent* in *other intelligent people* cannot be a CLASSIFIER since *intelligent* is gradable/intensifiable, as in, *other very intelligent people*, and, additionally, because the NP can be rephrased as *the other people are intelligent* or *other people intelligent enough to XYZ*.

Related to this issue, Quirk et al. (1995 [1985]) observed that there exists a certain group of adjectives which can be put in predicative position but only under certain circumstances. While the authors observed this behavior regarding the word *poetic* (cf., Quirk et al. 1995 [1985], p. 1324), the same phenomenon can be observed in the word *electric*. The general idea is that one and the same word can either be a CLASSIFIER or an EPITHET depending on the intended meaning. As a reminder, this project assumes the intended meaning and the underlying function structure to be deeply intertwined; based on this, the function of the adjective triggers its meaning while the meaning potential of the word limits its potential functions. Compare, for example, the two previously mentioned NPs *electric medieval festival* and *red electric car*. The issue, whether an EPITHET can be re-analyzed as a CLASSIFIER, is therefore not only a matter of morphosyntactic restrictions and semantically further defining the entity referred to, but also a question of whether the meaning of the prenominal element would change once put in predicative or postpositive position. This further restriction is important because in *red electric car* the prenominal element *electric* could, morphosyntactically speaking, be put in predicative position. However, this would trigger the meaning of *electric* as an EPITHET, namely ‘exciting’. In sum, the morphosyntactic restrictions in combination with the semantics of the prenominal adjective itself hint to the underlying function and vice versa; this results in a mutual dependency which helps clearly distinguish the line between EPITHETS and CLASSIFIERS.

Returning to SECONDARY DETERMINER, Breban addresses the internal comparisons when the SECONDARY DETERMINER *different* occurs in a singular or a plural NP (Breban 2010a, pp. 181). When *different* precedes the H of an NP in plural form, e.g., “different constituencies”, “the referential non-identity pertains to the different instances in the instantial set denoted by the NP”

(Breban 2010a, p. 181). When the H of the NP preceded by *different* is in singular form, e.g., “a different flavor of ‘Homestead-made’ ice cream”, “the presence of multiple referents is only implied by the semantic context” (Breban 2010a, p. 182). Based on this observation, it can be hypothesized that SECONDARY DETERMINERS which trigger an internal comparison in Breban’s (2010a, p.181) terms imply the existence of other instances of the same set rather than implying the existence of other sets.

In other words, the NP *different fast cars* relates to other grouped instances of cars within a set of cars which all happen to be fast; the NP does not relate to another set of fast cars, fast car set B, that exists at the same time as fast car set A. It is of uttermost importance to note that this only applies to SECONDARY DETERMINER uses of *different*. If used as an EPITHET, *different* can be paraphrased as ‘not like the other instances of XYZ’ and it can be put in predicative position without changing the meaning. If used as a SECONDARY DETERMINER, *different* can be paraphrased as ‘other/another’ and must remain in attributive position. This means that the underlying function structure of *different fast cars*, to match this argumentation, must be [SECONDARY DETERMINER + EPITHET + H]. This observation concerning the polysemy of *different* was already made by Breban & Davidse (2003, p. 270).

2.3.3.2. Theoretical Alternative to Re-Analysis

Regarding a preferred or restricted word order, previous literature already acknowledged that, under certain circumstances, the usual order of prenominal elements may be rearranged. Dixon (1982), for example, mentions that two prenominal adjectives, which themselves are categorized according to their semantic content, may occur in a norm-deviating pattern if uttered with a marked stress pattern (1982, p. 24). Teodorescu (2006) specifically focuses on prenominal elements and constructions that are exempt from adjectival order restrictions from a generative perspective. Kotowski & Härtl (2019) go as far as to question the legitimacy of adjectival order restrictions in general, arguing that the preferred order of prenominal elements is based on convention rather than on restrictions.

In previous corpus-based work, I have not encountered NPs in which a CLASSIFIER preceded an EPITHET. Nevertheless, constructions with an underlying function pattern of [CLASSIFIER + EPITHET + HEAD] are, in theory, permissible and are therefore in need of further explanation. Ultimately, an NP like *electric red cars* can be explained by the notions of ‘current discourse space’, as per Langacker (2008), and ‘given/new information’, as per Prince (1981). According to Langacker, the current discourse space, or CDS, “is a mental space comprising everything

presumed to be shared by the speaker and hearer as the basis for discourse at a given moment”; every information uttered during the interaction is added to that specific CDS (Langacker 2008, p. 60). The CDS is essentially what Prince refers to as “on the counter” in the following quote: “[...], if some NP is uttered whose entity is already in the discourse model, or ‘on the counter’, it represents an Evoked entity” (Prince 1981, p. 233). Prince argues that an entity can be (re-)evoked by either having been evoked earlier, i.e., added to the CDS at some point prior, or by implication through context or the general situation (Prince 1981, p. 233). Applied to the issue at hand, if the NPs *red cars* had already been uttered, thus having added a set of red cars to the CDS, or if this set was already prevalent in the CDS without having been mentioned explicitly, this given set of red cars could be (re-)evoked later in the conversation where the new prenominal element *electric* was added to the NP *red car* further narrowing down the entity referred to.

2.3.4. Adjective-Intensifier

In this project, ADJECTIVE-INTENSIFIERS are defined as those prenominal elements that intensify – whether positively or negatively depends on the semantics of the element itself – the property of the adjective it precedes and modifies. While it is correct that this function is predominantly realized by adverbs, the conclusion that adjectives are able to do so as well is based on observations made by Ghesquière (2014). In her functional-cognitive model of the English NP, ADJECTIVE-INTENSIFIERS are located in the ‘degree modification zone’ which, in turn, is located in the ‘modification zone’; ADJECTIVE-INTENSIFIERS themselves are divided into ‘bleached’ and ‘non-bleached’ (Ghesquière 2014, p. 24). While bleached ADJECTIVE-INTENSIFIERS have little, if at all, semantic content and are purely used for intensification purposes (e.g., *truly*, *fairly*, *very*), the notion of semantically non- or less-bleached ADJECTIVE-INTENSIFIERS can ultimately be traced back to Dixon (1982) (Ghesquière 2014, p. 35).

Dixon, in his cross-linguistic 1982 study, observed that some adjectives, which he refers to as ‘VALUE adjectives’, “qualif[y] not the head noun, but some other adjective, which is taken out of its normal place in the ordering and placed immediately after the VALUE adjective” (Dixon 1982, p. 25). The author suggests that in *a good new fast car*, the fast car can be considered good due to its newness and that, in *a good fast new car*, the new car can be considered good due to its possible speed (Dixon 1982, p. 25).

It is also possible for a VALUE adjective to immediately precede the H of the NP. In such a case, as Dixon mentioned, the NP is “vague” and “elliptical”; the author argues that the property

which qualifies the H of the NP as the value signified by the VALUE adjective is implicit but most likely identifiable by context (Dixon 1982, p. 26). Put differently, in *a bad car*, the car is considered *bad* based on an implicit property which is, most likely, inferable from the current discourse space. An interpretation pattern as such is, however, not easily encountered or identified since the context must coincide or even suggest such a pattern. For now, it is important to note that a VALUE adjective does not inherently trigger such a pattern as suggested by Dixon (1982), and that the function ADJECTIVE-INTENSIFIER is not inherently related to a VALUE-interpretation pattern by Dixon (1982).

2.3.5. Noun-Intensifier

According to Davidse & Breban (2019), the function of NOUN-INTENSIFIERS is to intensify the scalar property of the unit they precede; this unit always includes the H of the NP but may also consist of other prenominal elements positioned between the NOUN-INTENSIFIER and the Head (2019, pp. 348-349). For example, in *severe weather*, *severe* intensifies the scalar property of *weather*; in *severe work-related asthma*, *severe* intensifies the unit *work-related asthma*. Davidse & Breban describe the semantic function of NOUN-INTENSIFIERS as “qualitatively chang[ing] the descriptive meaning of the unit they relate to, more specifically its scalar properties” (2019, p. 348). Again, under different terminological guises, this function is generally recognized in the literature. Ghesquière & Davidse (2011), Ghesquière (2014), and Davidse & Breban (2019) all refer to it as ‘noun-intensifier’ or ‘-intensification’; Paradis (2000) and Feist (2009) employ the term ‘reinforcer’. Morphosyntactically, NOUN-INTENSIFIERS are restricted to attributive position and can themselves not be intensified or graded (Davidse & Breban 2019, p. 348; cf., also Feist 2009, p. 330).

Similar to ADJECTIVE-INTENSIFIERS, NOUN-INTENSIFIERS received a lot of attention in the form of diachronic studies. The seminal publication Paradis (2000) hypothesized that the intensifying function/meaning of adjectives can be traced back to their, what in this project is referred to as their EPITHETICAL, ‘descriptive’ uses (cf., chapter 2.3.2 above). Quirk et al. (1995 [1985]) recognize an intensifying function but do not explicitly relate it to the intensification of the scalar property of the H of the NP: “some adjectives have a heightening effect on the noun they modify, or the reverse, a lowering effect” (p. 429). Ghesquière (2009), on the other hand, focuses on those elements that developed from a determining use into an intensifying one, namely *particular* and *specific*. Ghesquière & Davidse (2011) synthesizes previous accounts of the emergence of the NOUN-INTENSIFYING function.

Special attention has to be paid to Feist (2009), who claims that ‘reinforcers’ are synonymous (Feist 2009, p. 330). This claim is especially interesting considering the representative words for the NOUN-INTENSIFIER function this project employed, namely *total* and *complete*. In regard to the publication by Feist itself, the author explicitly includes *total* and *complete* in the group of ‘reinforcers’: “The Reinforcers just given (and others such as *absolute*, *total*, and *outright*) [...]”; “First, they are synonymous, apart from *mere*. In the phrase *sheer arrogance*, for example, *sheer* could be replaced by *complete*, *absolute*, *pure*, *outright*, or *utter*.” (Feist 2009, p. 330). This claim clashes, at least implicitly, with the above-mentioned observation by Paradis (2000) regarding the origin of the semantic content of NOUN-INTENSIFIERS. If their intensifying meaning can be traced back to their descriptive use, it is reasonable to assume that the different descriptive meanings still, to some degree, reside in the intensifying meaning, which would result in different, non-interchangeable semantic contents of NOUN-INTENSIFIERS.

2.3.6. Metadesignative

The term METADESIGNATIVE and the correlating function have only been recently introduced to and addressed in the literature revolving around prenominal elements. To my knowledge, Davidse & Breban (2019) is the only publication that recognizes this function and actively distinguishes adjectives like *former*, *future*, *so-called*, *likely*, *possible*, etc. from other adjectives which they have been previously grouped with in the literature. Therefore, this project aligns with the definition of a METADESIGNATIVE provided in Davidse & Breban (2019).

METADESIGNATIVES are “interpersonal modifier[s] by which the speaker assesses the relationship between (parts of the) designation and referent” (Davidse & Breban 2019, p. 361). Furthermore, the authors elaborate that “[u]sing metadesignatives involves taking a distance from the referring and/or representation relation between a linguistic element and the referent in order to comment on it” (Davidse & Breban 2019, p. 361). For example, in *a future president*, the speaker comments on the applicability of the term *president* and communicates that it is applicable only at some point in the future. Similarly, in *possible answer*, the instance referred to as ‘answer’ need not necessarily be an answer at all. In other words, the semantic function of METADESIGNATIVES is to evaluate the applicability of or add additional information about the element they precede, i.e., another prenominal element or the H of the NP itself. Morphosyntactically, they cannot be intensified or be used predicatively (Davidse & Breban 2019, p. 362).

In previous literature, the peculiarity in relation to the semantic and morphosyntactic behavior of (what is here termed as) METADESIGNATIVES, had already been recognized. However, they were often grouped with other non-central adjectives of a different function. Regarding Halliday (1994), for example, it is easy to assume that the author understood METADESIGNATIVES to be a part of post-deictics/deictic₂ since *possible* is included in that group (cf., Halliday 1994, p. 162). However, since the polysemy of *possible* is not explicitly addressed by the author, his observation cannot be unambiguously related to METADESIGNATIVES as they are defined here. On a similar note, Ghesquière (2014) includes *former* in the group of secondary determiners (Ghesquière 2014, p. 48).

Other authors have explicitly recognized the function and grouped them with prenominal elements of similar function but employed a different terminology. The authors and their notions are given here to provide an overview of the literature; however, their definitions are not applied in this study. Quirk et al. (1995 [1985]), for example, relates adjectives of METADESIGNATIVE function as “other adjectives related to adverbs” including *former*, *possible*, and *present*, defining them as “[...] noninherent adjectives that are attributive only [which] can be related to adverbs but do not always fall within the intensifying or restrictive types of adjectives” (Quirk et al. 1995 [1985], p. 431). Vandelanotte (2002) utilizes the term “framing adjectives” to refer to adjectives such as *so-called*, *alleged*, *putative*, and *purported*; the author explains that ‘framing’ here relates to “[...] the more abstract, schematic type of relation behind the mechanism of quoting [...]”, meaning that *a so-called intelligent politician* can be paraphrased as *a politician whom others would consider ‘intelligent’* (Vandelanotte 2002, p. 248). Huddleston & Pullum (2002) group the METADESIGNATIVES *former*, *future*, and *eventual* under ‘temporal and locational attributives’ (p. 556), but adjectives like *likely*, *possible*, or *probable* under ‘modal attributives’ (p. 557).

2.3.7. Focus Marker

Similar to METADESIGNATIVES, FOCUS MARKERS have received little attention; it is again only Davidse & Breban (2019) whose definition this project adopts: “[t]hey are interpersonal modifiers by which the speaker situates the focus value in relation to alternative (implied) values, which contrast with the focus value or are situated on a shared scale” (2019, p. 358). The authors address the examples *mere*, *simple*, and *pure* (Davidse & Breban 2019, pp. 358–360); Davidse also recognized an alleged FOCUS MARKER function of *very* in her 2022 publication concerning SECONDARY DETERMINER (Davidse 2022, p. 67).

In previous literature, however, the prenominal element *very* has been identified by Quirk et al. (1995 [1985]) as a ‘restrictive adjective’ whose function it is to “restrict the reference of the noun exclusively, particularly, or chiefly” (1995 [1985], p. 430). Feist (2009) understands *mere* to be a ‘reinforcer’ (cf., NOUN-INTENSIFIER above) (2009, p. 331). While this project, like Davidse and Breban (2019), explicitly distinguishes FOCUS MARKERS from NOUN-INTENSIFIERS, the definition of a sub-function of ‘reinforcers’ by Feist still correlates to and is based on that of the FOCUS MARKER *mere*: “[Reinforcers] may minimize the referent’s quality” (Feist 2009, p. 331).

When defining the semantic function of FOCUS MARKER, Davidse & Breban (2019) refer to a notion in another publication, i.e., McGregor’s (1997) definition of the ‘rhetorical modification’ – this modification type is one of three possible ones related to the semantic dimension of conjugational relationships (cf., McGregor 1997, p. 210). The ‘rhetorical modification’ itself “indicat[es] how the unit fits into the framework of knowledge and expectations relevant to the interaction” (McGregor 1997, p. 210). Put differently, utilizing a FOCUS MARKER emphasizes the quantity, quality, or existence of the instance referred to while simultaneously relating it to an implicit norm. This emphasized element is, compared to the implied norm, unconventional – in the case of *mere*, the sense of unconventionality is often conveyed by the verb phrase, cf., *the mere sight of a syringe makes me nauseous* where it is unconventional for the visual impression of a syringe to induce nauseousness. Morphosyntactically, FOCUS MARKER are not intensifiable and cannot be put in predicative position (Davidse & Breban 2019, p. 259).

2.4. Interpretation of Adjectives

This section is concerned with the interpretation of prenominal elements and subsequently the conventions of depicting interpretation patterns of NPs with multiple prenominal elements. The polysemy of prenominal elements will be addressed before highlighting the differences in meaning regarding the attributive and postpositive position; the overt coordination of multiple prenominal elements and the resulting interpretational issues are elaborated as well. Finally, the notion of interpretation patterns itself will be defined, and the depiction of NPs’ interpretation pattern will be demonstrated.

2.4.1. Polysemy – Same Form, Different Interpretation

As mentioned above, the literature generally agrees that adjectives denote properties (cf., chapter 2.2.1). Furthermore, the fact that one and the same adjectival form can have multiple interpretation patterns has been acknowledged repeatedly and studied extensively (Alexiadou

et al. 2007; Bolinger 1967; Quirk et al. 1995 [1985]; Radden & Dirven 2007; Taylor 1992; Warren 1988). Most of these publications refer back to previous literature from different linguistic paradigms, which demonstrates how well-researched the polysemy of adjectives is. In what follows, some of the notions mentioned in these publications will be briefly described and considered from the perspective of this paper and thus related to the functions of prenominal elements (CLASSIFIER, EPITHET, SECONDARY DETERMINER, etc.). For all the notions that will be described here, the essential question is whether the adjective modifies the actual instance referred to, or some semantic extension implied by the head of the noun phrase.

2.4.1.1. Inherent vs. Non-Inherent

It is practical to start with the notion of ‘inherent’/‘non-inherent’ adjectives mentioned in Quirk et al. (1995 [1985]) simply because the definitions are rather general. The authors define ‘inherent’ adjectives as “adjectives [that] characterise the referent of the noun directly” and ‘non-inherent’ adjectives as those that do not characterize the referent of the noun directly (Quirk et al. 1995 [1985], p. 429). What this very straightforward distinction means is that every adjective that does not directly ascribe a property to the instance referred to is ‘non-inherent’.

- (1) an old car – my car is old
- (2) my old friend – my friend is old
- (3) my old friend – *my friend is old – a long-standing friendship
- (4) any old knife – *the random knife is old

Based on this analysis, the adjective *old* in examples (1) and (2) is inherent, because the Hs of the NPs, or more precisely, the instances, are considered to be of old age. Quirk et al. also mention that non-inherent adjectives are restricted to attributive position (1995 [1985], p. 428). In other words, while the NPs in (2) and (3) might have the same form, *old* in (3) is non-inherent since it is non-predicable and because its property is ascribed not to the instance but to the semantic extension of H of the NP, i.e., the friendship implied by the word *friend* (cf., Radden & Dirven 2007, p. 152). Also relating to a non-inherent, non-predicable function of *old*, Taylor (1992) recognizes a determiner-intensifying use demonstrated in (4)⁴. Taylor describes the adjective *old* as an “intensifier of indefinite *any*” (Taylor 1992, p. 32).

Put into perspective of the function of prenominal modifiers, it is clear that *old* in (1) & (2) function as EPITHETS – the adjective indicates a quality of the subset and can be put in

⁴ In an example like (4), *old* can be argued to be of affective use. Matthews (2014) argues that the sense of *old* in an example like (4) is affective, meaning that the speaker is looking for a knife, but whether new or old is irrelevant (Matthews 2014, p. 95).

predicative position. Examples (3) & (4) are per definition not eligible to function as an EPITHET (non-inherent = cannot be used predicatively = not EPITHET). It must be noted that the adjectival form *old* can indeed be used predicatively, but once put in predicative position, *old* can no longer refer to the semantic extension of the H of the NP. In other words, the NP *my friend is old* cannot refer to a long-standing friendship because the non-inherent use of *old* is restricted to the attributive position (cf., above-mentioned examples with *different* and *electric* in chapter 2.1.1 where certain meanings are only retrievable if the adjective is in attributive position). It could be argued that *old* in (3) provides metalinguistic information about the term *friend* and the notion implied by it, which would qualify it as a METADESIGNATIVE. *Old* in (4), as Matthews argues, could be analyzed as a complex determinative together with *any* (2014, p. 95).

2.4.1.2. Referent vs. Reference Modification

Bolinger (1967) addresses the notions of ‘referent modification’ (p. 20) and ‘reference modification’ (p. 14). Referent modification, as the term hints at, correlates to the above-mentioned notion of ‘inherent adjectives’, as per Quirk et al. (1995 [1985]), i.e., the adjectives ascribe their property to the referent like in example (1) & (2). By reference modification, on the other hand, the property denoted is put in relation to some semantic extension of the H of the NP. The semantic extensions are, however, not generalizable and are highly dependent on the combination of words.

- (5) eager student:
 - a. The boy is an eager student.
 - b. The boy is a student.
 - c. The student is eager.
- (6) criminal lawyer:
 - a. John is a criminal lawyer.
 - b. John is a lawyer.
 - c. *John is criminal.
 - d. *The lawyer is criminal.

In (5), for example, Bolinger argues that only in (5a) the adjective *eager* displays reference modification but not (5b) or (5c) which, despite being implications of (5a), display referent modification. The crucial difference is that the property in (5b/c) is directly ascribed to the referent, i.e., the student/boy, whereas in (5a) the property *eager* is put in relation to the semantic extension of *student*. To sentence can be rephrased as follows: *the boy is considered eager in terms of being student*, or *for someone who is a student, the boy is (pretty) eager*, or “someone who is eager qua student”, as the author put it. (Bolinger 1967, p. 15)

A similar phenomenon can be observed in (6), although noticing the distinction between referent and reference modification might be easier due to the infelicity of the implications in (6c) and (6d). Based on the definitions provided in chapter 2.3.1, it is clear that the NP *criminal lawyer* in (6a) cannot be rephrased as (6c) and (6d) since *criminal* here functions as a CLASSIFIER, i.e., a function that indicates a sub-category and cannot be used predicatively. Bolinger argues that “[t]he differences between reference-modification and referent-modification often selects different meanings of the adjective [...]” (Bolinger 1967, p. 15). This means that, in order to relate or ascribe the property to a semantic extension of the H of the NP, reference-modification must be employed. However, at this point, the circular nature of the claim resurfaces – does one ‘employ’ reference-modification to trigger the subcategorizing meaning of *criminal*, or does the subcategorizing meaning of *criminal* trigger a reference-modification? Whatever the answer, it has been shown that the notion of reference-modification can apply to both CLASSIFIERS and EPITHETS, which indicates that it is more so intertwined with the lexical semantics of a word than with its function and position in the NP.

2.4.1.3. Deadverbial Adjectives

Radden & Dirven (2007) mention a sub-type of attributive adjectives, i.e., ‘deadverbial adjectives’, that relate to the manner of an action [...] or to the setting of a situation” (2007, p. 152). Regarding the first relation, the authors mention the examples (7) and (8), of which only the second one involves a deadverbial adjective (Radden & Dirven 2007, p. 152). In (8), *intelligent* cannot be used predicatively since it would otherwise trigger the inherent use of the adjective. In other words, (8) cannot be paraphrased as *the solution is intelligent* because the meaning *solution that displays the intelligence of the person who solved the problem* is restricted to the adjective in attributive position.

- (7) an intelligent boy
- (8) an intelligent solution
- (9) the former USSR
- (10) the possible effects

While the difference in meaning of (7) & (8) cannot be allocated to a specific function or position, examples (9) & (10) are reminiscent of METADESIGNATIVES. The adjectives *former* and *possible* cannot be used predicatively and provide metalinguistic information about the H of the NP. Additionally, the authors also include the “deadverbial ‘past-time’ sense” of *old* which cannot, as mentioned above, be restricted to a separate function, and *late* as in *late Marilyn Monroe*, defined as “[alluding] to the time of a situation” (Radden & Dirven 2007, p. 152). Similar to *intelligent* in (8), *possible* in (10) could morphosyntactically be put into

predicative position. However, in predicative position (e.g., *the effects are possible*) *possible* refers to the uncertainty about the possibility of the effects, whereas *possible* in (10) does not question the possibility of the effects but rather focuses on the uncertainty of them occurring. The latter interpretation, deadverbial, as per Radden & Dirven 2007, or METADESIGNATIVE function, is restricted to the prenominal adjective.

2.4.1.4. Prenominal vs. Postpositive Position

As has been mentioned before, there are a large number of adjectives whose function-specific meaning is restricted to attributive position, e.g., SECONDARY DETERMINER *different*, CLASSIFIER *electric*, METADESIGNATIVE *possible*, etc. However, the prototypical adjective may occur in attributive, predicative, and postpositive position (cf., Crystal 1967, p. 207; Huddleston & Pullum 2002, p. 528; Quirk et al. 1995 [1985], p. 404). It has been noted by Huddleston and Pullum that, if attributive and postpositive position is syntactically permissible, “the attributive position is generally the default, and in many cases the only possibility” (2002, p. 552). This section is not concerned with the reasons for this preference of, for example, *a young player* vs. **a player young*. This section is rather concerned with the differences in meaning of an NP with a prenominal adjective and an NP with the adjective in postpositive position, e.g., *the navigable rivers* vs. *the rivers navigable*, ergo NPs where both positions of the adjective are syntactically permissible and attested in everyday language.

In his seminal publication from 1967, Dwight Bolinger explored many inquiries about the semantics of adjectives (cf., referent vs. reference modification, chapter 2.4.1.2). Among the topics addressed is the semantic contrast between adjectives in attributive and postpositive position. The author proposes a dichotomous system of meaning, i.e., ‘characteristic’ and ‘occasion’, with the former adhering to adjectives in attributive and the latter to adjectives in postpositive position (Bolinger 1967, p. 4). With examples such as *rivers navigable* vs. *navigable rivers* and *visible stars* vs. *stars visible*, Bolinger argues that adjectives in postpositive position predominantly refer to the occasion or temporary quality of the H of the NP (1967, p. 4). Quirk et al. (1995 [1985]) also acknowledge the temporary meaning of postpositive adjectives: “[s]ome postpositive adjectives [...] retain the basic meaning they have in attributive position but convey the implication that what they are denoting has only a temporary application” (1995 [1985], p. 419).

In other words, *the river navigable* unambiguously refers to rivers which are not always, but certainly now, navigable; *the stars visible* unambiguously refers to stars which are visible at the

moment but may not be so every night. The fact that the reading is unambiguous in postposition must be stressed, since adjectives in attributive position may refer to both the ‘occasion’ and ‘characteristic’ meaning (Bolinger 1967, p. 4). Thus, *the navigable rivers* can refer to those rivers navigable only now but also to those that are generally navigable; similarly, *the visible stars* may be referring to stars visible only at this moment or to those stars that are generally visible.

Building on Bolinger (1967), Ferris applies the notion of ‘characteristic’ and ‘occasion’ use of adjectives to additional examples. However, the author concludes that the distinction established by Bolinger (1967) is insufficient since an ‘occasion’ reading for some adjectives in postpositive position is ungrammatical (Ferris 1993, p. 48). Furthermore, the author argues that the difference between prenominal and postpositive adjectives lies instead in their ability of these adjectives to be used in predicative position within an attributive relative clause. As Ferris puts it: “[Prenominal and postnominal attributives] differ in the relation which binds the adjective into the phrase, and in this respect postnominal attributive adjectives are close to the attributive relative clauses” (Ferris 1993, p. 50). This observation is strengthened by examples (11) and (12) below, taken from Ferris (1993, p. 50).

- (11) the robber was asleep
not noticing the robber asleep, they missed their revenge
*the asleep robber
- (12) their proposals are sheer lunacy
*their lunacy is sheer
*lunacy sheer of this sort is unsurprising

At first, a conclusion about the meaning differences between prenominal and postpositive adjectives based on these examples seems flawed. On the one hand, it is heavily circular to argue that postnominal adjectives are semantically closer to attributive relative clauses with adjectives in predicative position, if one considers adjectives/functions that are not permissible in predicative position (cf., *sheer* in (12) as a METADESIGNATIVE), to be the reason for that. On the other hand, even when considering adjectives that are semantically similar and of the same function in attributive and postpositive position, NPs like *the visible stars* and *the stars visible* can both be paraphrased by relative clauses in which the adjective is in predicative position, cf., example (13) & (14) below, taken from Cinque (2010, p. 6).

- (13) the visible stars → the stars that are (generally) visible
- (14) the stars visible → the stars that happen to be visible (right now)

However, the paraphrase in (14) demonstrates what Ferris essentially argues, namely that “[...] postnominal position expresses the intensional pattern which contains an adjective linked to its head noun by assignment, while remaining part of the same phrase”, (1993, p. 51). In other words, provided the adjectives in question are of the same basic meaning and of related function – presumably predominantly those of EPITHETICAL function – adjectives in postpositive function express temporary or situational properties that are in need for further elaboration.

While I do not subscribe to the line of argumentation provided by Ferris (1993), as far as I understood it, the author’s conclusion is definitely of relevance to this project: “[...] both relative clause and postnominal adjective share the characteristics of linking an adjective to its head noun by the relation of assignment, not simple qualification [...] (p. 50). Put differently, in an NP like *the people intelligent*, the adjective *intelligent* does not inherently ascribe its property to the instance referred to but rather frames it as intelligent in light of the given circumstances. Based on this, the instances referred to in *the people more intelligent than myself* or *the people intelligent enough for this job* are not necessarily smart and may as well be quite the opposite.

The fact that postpositive adjectives create an NP that is in need for further specification or context was noted by Radden & Dirven (2007) who specifically mention present and past participle in attributive or postpositive position. According to the authors “[t]he postmodifier adjectives [...] describe changeable and more particular properties and are in need for further specification” (Radden & Dirven 2007, p. 154); this definition, compared to Ferris’ (cf., 1993, p. 50), encompasses the notion behind postpositive adjectives equally accurately without basing it on attributive relative clauses. With special focus on present and past participles, Radden & Dirven mention that, since both forms are atemporal, the participles can highlight the stable property of the instance when in attributive position or focus on the context creating that temporary property of the instance when in postpositive position (Radden & Dirven 2007, p. 155).

Finally, to mention further research related to this issue, Cinque (2010) conducted a cross-linguistic study of English and Italian to highlight the language-specific difference in attributive and postpositive adjective position. The author builds on the idea by Bolinger (1967) that, in English, postpositive adjectives express one of the two possible attributive readings unambiguously. Interestingly enough Cinque argues that in Italian, and arguably Romance languages in general, the pattern is inverted: “[...], adjectives in Italian are ambiguous in postnominal position and have only one value in prenominal position (which is, in fact, the

opposite of the one displayed by English adjectives in postnominal position)” (Cinque 2010, p. 5). Put in context of the above, English prenominal adjectives are ambiguous while Italian postpositive adjectives are ambiguous; English postpositive adjectives express the temporary meaning that is in need for further context while Italian prenominal adjectives express the inherent quality ascribing meaning.

2.4.2. Overt Coordination of Prenominal Adjectives

Bache’s *The Order of Premodifying Adjectives in Present-Day English* provides important insight into the interpretation of NPs, especially given that the aim of the author’s study is similar to that of this project. Bache’s corpus-based study “attempts to highlight the principles governing the sequential ordering of two or more premodifying adjectives in the English noun phrase” while also paying special attention to the different function combinations (Bache 1978, p. 11). In relation to that, the author provides a taxonomy of Poly-adjectival Nominal Phrases (PNPs) and of the different modification zones.

While publications from 1978 onwards have built on Bache’s findings, today, the function definitions and the taxonomy he provides are rather outdated; more research has been dedicated specifically to these issues and newer, more accurate concepts and terminologies are now available (cf., chapter 2.3 above). Nevertheless, the author’s three-zone model of prenominal modifiers, termed Modification Zone I, II, and III, can roughly be allocated to the function of SECONDARY DETERMINERS, EPITHETS, and CLASSIFIERS; especially with the semantic function of each modification zone in mind, the parallels become noticeable. Table 3 below provides an overview of the functions and, by now outdated, observations of the zones, taken and adapted from Bache (1978, p. 32-40):

Table 3. Overview of Modification Zones I, II, and III according to Bache 1978.

	Semantic function	Coordination by <i>and</i>	Comparison or Intensification	Predicative Position
Mod. I-ADJs	define/specify	-possible	-possible	usually not
Mod. II-ADJs	describe/characterize	+possible	+possible	+possible
Mod. III-ADJs	categorize/classify	-possible	-possible	mostly not

Bache (1978) also addresses the coordination of prenominal adjectives, in this case, only those elements that can be allocated to modification zone II. In his publication, coordination is a relatively fundamental topic since the author distinguishes PNPs into ‘broken’ and ‘unbroken’ based on whether “two or more adjectives are separated by comma(s) and/or conjunction(s)

(*and, or, but* etc.)” or not (Bache 1978, p. 20). The author argues that the coordination of adjectives, i.e., broken PNPs, may correlate to a paratactical relationship between adjectives, and unbroken PNPs may correlate to hypotactic ones, but also notices the lack of convention and consistency: “the lack of commas and/or conjunctions is symptomatic of structure in constructions where broken and unbroken sequences co-occur, though this is not necessarily the case in totally unbroken constructions” (Bache 1978, p. 26). Since the basis of the distinction between broken and unbroken is rather inconsistent and speculative, it is impossible to draw valid conclusions based on punctuation.

The notions of parataxis and hypotaxis, however, are a reoccurring topic in the literature concerned with prenominal adjectives and are therefore relevant for this project as well. The different manifestations of this syntagmatic hierarchy in modification have been addressed in the literature as, for example, stacking/layering vs. coordination of adjectives (Matthews 2014, chapter 6), independent modification (Dixon 1982, cf., VALUE adjectives), or coordinated vs. recursive modification (Vandelanotte 2002). The overarching question connecting these terms is ultimately concerned with the interpretation pattern of NPs with multiple prenominal elements. More specifically, in a NP like *objective intelligent readers*, do the two adjectives independently modify the H of the NP or is there a specific order as to how the NP is to be deciphered? With independent modification, the meaning of the NP can be the intersection of [ADJ1 + H] and [ADJ2 + H] (Matthews 2014, p. 89); recursive modification may involve “regressive bracketing of units” (Vandelanotte 2002, p. 222) resulting in [ADJ1 + [ADJ2 + H]]. As mentioned above, arguing whether the modification pattern is coordinated or recursive based on overt coordination seems rather inappropriate, given that Bache (1978) already understood punctuation to be unreliable. Vandelanotte (2002) investigates NPs with overtly coordinated adjectives in more detail. Similar to Bache (1978), the author also assumes a comma or *and* to be indicators for a coordinated modification pattern despite admitting to the existence of inconsistencies in punctuation:

Commas are usually also good indications of coordination, but some measure of caution is in order here. In sequences like [*powerful, democratic political movement*], some people will write commas throughout the adjectival sequence [...] while others will not. Context will play a crucial role in determining whether by means of *political* a mere quality is attributed, or whether in fact a subset of the head noun is first delineated (*political movement*) to which two qualities are subsequently ascribed. (Vandelanotte 2002, p. 223)

Clearly, as mentioned in the quote above, the role of context does play an important role in distinguishing between possible modification patterns. However, it can also be argued that

neither context nor punctuation are crucial variables in identifying the pattern, but rather the adjectival function of a word as reflected in its syntactic behavior/restrictions, here *political*. Solely based on Table 3 above, and consequently Bache (1978), certain morphosyntactic criteria already exist which hint to the intended semantic function and thus the underlying modification pattern.

Davidse & Breban (2019) argue that the differences in punctuation are not linked to the coordination/recursion of modification; it is rather a matter of structuring information which is in turn related to intonation and salience when read aloud: “If the epithets are separated by a coordinator or a comma, they are more likely to be individually salient [...]”; however, “[i]f epithets are not separated by commas in writing, [...] they will be accented less as individual items, and are more likely to be integrated into an overarching contour.” (2019, p. 347). Such an analysis does not automatically relate the punctuation or existence of a coordinator to a certain interpretation pattern. This leaves room for the discussion of underlying structures, such as [ADJ1 + Coordinator + ADJ2 + HEAD], without generalizing their possible interpretation pattern. With examples like *black and white dress*, *fresh or frozen corn*, or *cheap but nice car*, it becomes apparent that, despite sharing a certain structure, the interpretation patterns can vastly differ.

Interpretation patterns of NPs with multiple Epithets are therefore not an issue overt coordination or not; similarly, it is also not exclusively a question of whether the modification is coordinative or recursive. Matthews correctly observes that the absence of coordination in prenominal modifiers does not inherently trigger a recursive reading. The author mentions an example, *large fluffy animal*, of which the interpretation pattern allegedly results in the coordination of properties, i.e., [[large + animal] + [fluffy + animal]], despite lacking any overt coordination marks. On the other hand, a NP with a coordinator does more than simply combine two properties; Matthews (2014, p. 91) claims that “in saying *a large and fluffy animal*, one would refer not just to an animal with both properties, but to one perceived as belonging to a class that has them”. (Matthews 2014, p. 91)

Additionally, the semantic relation of the adjectives involved also plays an important role. In *black and white dress*, the inherent meanings of the color adjectives are in opposition to each other; something that is black cannot be white, and vice versa. Therefore, the NP refers to an instance of a dress which is partly white and partly black (cf., Matthews 2014, p. 91). In an example like *good old road*, here in the sense of a qualitatively good road in relation to the year it was built, the interpretation is one of concession rather than of coordination or recursion.

Overall, it can be said that an interpretation pattern of any form (coordination of properties, recursive reading, simultaneous application without intersecting, categorical membership based on intersection of properties, applicability of properties despite contrariety, etc.), cannot be linked to the existence/absence of overt coordination in the form of a comma, a coordinator, or intonation. The interpretation is much rather an issue of the underlying function structure in combination with the inherent semantic potential(s) of the prenominal adjectives themselves.

3. Research Question and related issues

This section is concerned with the main research question of this study and the various (sub)questions related to it. The general question this study answers is the following: What are the functions of prenominal elements in a Noun Phrase of modern-day English and how do they interact with each other in regard to the possible interpretation patterns of the underlying structure [(Primary Determiner) + ADJ1 + ADJ2 + H]? The question can be dissected into three related issues. First, the term ‘function’ needs to be delineated and defined; second, the notion of interaction between prenominal elements is in need for further elaboration; third, a definition must be provided of interpretation pattern and the conventions used to depict them. The subsections below will address each of these issues respectively.

3.1. Delineating the term ‘function’

The functions discussed in the theoretical background (chapter 2) served as a starting point for this study; they amount to a total of seven different functions: CLASSIFIER, EPITHET, SECONDARY DETERMINER, ADJECTIVE-INTENSIFIER, NOUN-INTENSIFIER, METADESIGNATIVE, and FOCUS MARKER. Put simply, each of these functions adds information about other elements of the NP in a different way. Table 4 below summarizes the semantic relation between the function and other elements in the NP based on the previous literature. In the context of this study, an established function is understood as a signifier for the respective, function-exclusive interpretation pattern. That way, the lexical semantics of the individual prenominal elements are, to a certain degree, disregarded and a one-to-one relation between a function and an interpretation pattern can be drawn.

Table 4. Summary of Semantic Content of Functions.

Name of the Function	Abbreviation	Semantic Relation	Example
CLASSIFIER	CLASS	indicate a subcategory or -type of the H	<i>electric car</i>
EPITHET	EPI	Indicate quality of subset	<i>blue eyes</i>

SECONDARY DETERMINER	SD	Contribute to identification of instance referred to	<i>various people</i>
ADJECTIVE-INTENSIFIER	ADJ-I	Intensify scalar property of Adj they precede	<i>good fake cough</i>
NOUN-INTENSIFIER	N-I	Intensify scalar property of unit (always incl. H) they precede	<i>Severe injury</i>
METADESIGNATIVE	MD	Comments on applicability of the term they precede	<i>possible candidate</i>
FOCUS MARKER	FM	Situates focus value in relation to alternative values	<i>mere mortal</i>

An assumption like this has several implications. On the one hand, it assumes that the lines between functions are rigid and clearly defined. While this is seldom the case in actual language use, it does serve as a starting point for this study. Approaching NPs with a categorization like this allows for a relatively systematic way of analyzing the statistical distribution and interaction of multiple prenominal elements. On the other hand, it leaves room for additional adjectival functions; should there be any semantic relation of adjectives not listed in Table 4 above, it might be indicative of the need for further functions (provided ‘functions’ is defined as signifier for an exclusive interpretation pattern). This is also true for the other way around: should a function indicate a behavior quite similar to another one, the need for that distinct function should be questioned.

3.2. The Interaction of multiple prenominal elements

In the context of this study, the term ‘interaction of prenominal elements’ relates to, rather superficially, the notion of adjectival order and, as a consequence, whether certain function combinations trigger or prevent specific interpretations. Should the results indicate a statistical tendency for a certain function to occur in a certain (relative) position, e.g., CLASSIFIERS cannot be followed by other functions, it will be understood as a measurable manifestation of convention.

This statistical distribution will not be taken as a source for adjectival order restrictions (AOR). The reason for that is twofold. First, the findings are based on a specific corpus (i.e., COCA) and are not representative of other corpora or language data. If a certain function combination was not encountered, that combination is not deemed ungrammatical or impossible, but rather ‘not encountered’. Undoubtedly, most, if not all, function combinations can be found when actively looked for. Second, and this builds on the previous point, relating the hypothetical

existence of all function combinations to adjectival order restrictions would question the legitimacy of the notion of ‘adjectival order restrictions’ in general. If one understands language use to be the manifestation of language rules and all combinations were encountered, AORs would not be much of a restriction at all. The statistical distribution of functions within a NP, i.e., the tendency of certain functions to (not) precede/follow others, will most likely be indicative of the underlying AOR, but it would be circular to assume that the distributions are the source for the AOR. Based on this, this study assumes that, if all combinations were found, it would merely be corpus-based evidence for the presumably effective communicative function of those combinations.

Furthermore, systematically investigating each function allows for the exploration of the environment in which they occur and the sources of their lexical ambiguity. As mentioned repeatedly throughout chapter 2, adjectives can, based on their underlying function structure, carry different meanings (e.g., *different*, *electric*, *possible* above). Looking at the prenominal elements before and after the function in question might shed light on the system which triggers (or possibly prevents) a specific function and its correlated meaning. On a similar note, if a token is highly ambiguous, the source for its ambiguity might be highlighted. To name an example, if the word *different* is preceded by an EPITHET, the SECONDARY DETERMINER reading of *different* is, in theory, impermissible and its EPITHETICAL meaning is triggered as in ‘not like the others’.

3.3. Interpretation Pattern of Functions in a Noun Phrase

This section summarizes the tools and conventions that are used in this paper to depict the interpretation patterns of prenominal adjectives. In general, this project adopts the conventions used by Davidse & Breban (2019). However, important clarifications have to be made. The use of arrows and boxes by Davidse & Breban (2019) is, in turn, adapted from Hudson (1984) and applied to the prenominal elements to represent two notions: first, the ‘dependency structure’, as per Hudson (1984); second, McGregor’s (1997) dichotomous distinction of modifiers into ‘interpersonal’ and ‘representational’.

Regarding McGregor’s (1997) terms ‘interpersonal’ and ‘representational’ modifier, this project generally aligns with the distinction based on the definition of the terms provided in Davidse & Breban (2019, p. 332); however, they will not be applied in this study. It is inappropriate to apply this distinction and the definitions (cf., McGregor 1997, pp. 210, 236) to this project simply due to the fact that the terms are part of a much larger system, i.e., ‘semiotic grammar’.

While it might be, in theory, a precise and correct definition of the types of modifiers this project investigates, it would not do the terms justice to extract them from the overall system and apply them in this paper without elaborating their broader context.

Another terminological issue concerns the overall notion that is being depicted by boxes and arrows. While Davidse & Breban (2019) refer to it as the ‘dependency structure’, this study investigates the ‘interpretation pattern’ of NPs with multiple prenominal elements. Similar to the adoption of McGregor’s (1997) terms ‘interpersonal’ and ‘representational’ modifiers above, the authors adopted the term ‘dependency structure’ from Hudson’s 1984 book called *Word Grammar*. However, it must be mentioned that Hudson employed the term in the context of syntactic relations, more precisely, the dependency structure depicts the “co-occurrence [of pairs of words] sanctioned explicitly by the grammar” (Hudson 1984, p.76). Therefore, the term ‘dependency structure’ should not be utilized here for the following two reasons. First, this project does not align itself with the overall system of word grammar, introduced by Hudson (1984) – as a consequence, the term should not be extracted from its context without agreeing to or at least providing said context. Second, the system of dependency structure and the arrows visualizing it depict syntactic relations, while an interpretation pattern, as defined here, depicts the interpretation process of a NP with multiple prenominal elements. It may well be that the dependency structure aligns with the interpretation pattern in some cases; however, that does not justify employing a term that originated in a syntactic context of a certain linguistic paradigm to a different area of linguistics (semantics) within a different school of thought (cognitive-functional).

Based on the above, this project applies the terminology of a similar distinction, namely that between ‘inherent’ and ‘non-inherent’ by Quirk et al. (1995 [1985], p. 429). Since inherent adjectives modify the referent directly, this notion will be represented by arrows and almost exclusively applied to the interpretation pattern of EPITHETS. Mind, however, that EPITHETS can be argued to modify a larger unit than only the H of the NP. This might be the case in, for example, *red electric car*, where the property is not only applied to *car* but to the unit of [CLASSIFIER + HEAD]. This is due to the fact that the semantic function of a CLASSIFIER is to subcategorize and further define the entity referred to.

The definition of ‘non-inherent’ adjectives is very general; non-inherent adjectives are simply all the adjectives that are not inherent (Quirk et al. 1995 [1985], p. 429). Based on this, non-inherent modifiers, i.e., SECONDARY DETERMINER, NOUN-INTENSIFIER, ADJECTIVE-INTENSIFIER, METADESIGNATIVE, and FOCUS MARKER, will be represented by boxes encapsulating the unit

they identify/intensify/focus on/etc. (this correlates with Davidse & Breban 2019). An exception to this is the function of CLASSIFIERS. To signal the close relationship between CLASSIFIERS and the H of the NP, square brackets will be used. The decision to explicitly indicate this close relationship is based on two facts: first, in a previous study, I have not encountered a NP in which the CLASSIFIER was followed by a different function other than a CLASSIFIER; second, it correlates to the functional-cognitive zone model of the English NP by Ghesquière (2014) where the author goes as far as fusing the classifying function together with the H of the NP thus creating the ‘Categorization Zone’ (cf., Ghesquière 2014, p. 24).

With the terminology provided and the theoretical preliminaries addressed, consider Figure 1 below. While it does not depict all possible function combinations, it demonstrates the conventions applied in this project. As mentioned above, inherent modification by attributive adjectives is depicted by arrows pointing to their trajector – this notion will predominantly be associated with EPITHETS. Multiple EPITHETS in one NP, like in *good fast new car* in Figure 1 below, independently modify the H of the NP, as discussed in chapter 2.3.2 above. Non-inherent modification by attributive adjectives is depicted by boxes – this included the functions FOCUS MARKER, METADESIGNATIVE, ADJECTIVE-INTENSIFIER, NOUN-INTENSIFIER, and SECONDARY DETERMINER. The boxes encapsulate the unit the prenominal element modifies. Therefore, the box of the ADJECTIVE-INTENSIFIER *good* in Figure 1 below only scopes over *fast* since it modifies no other element than the one it precedes. *Different*, on the other hand, scopes over the entire unit since it contributes to the identification of the instance referred to including potential properties denoted by EPITHETS (cf., chapter 2.3.3 above). The close relation of CLASSIFIERS and their heads is visualized by square brackets as in *electric car* in Figure 1 below.

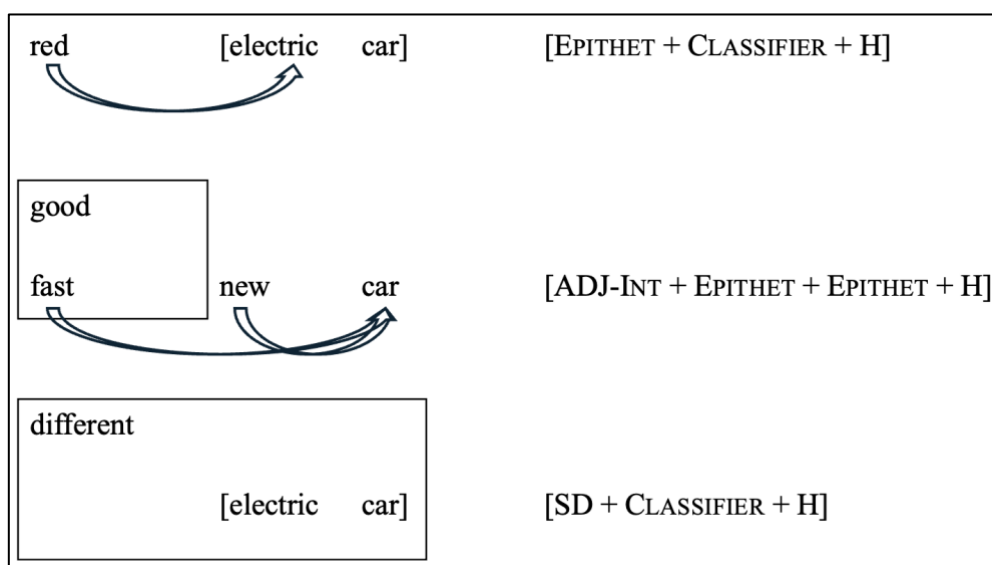


Figure 1. Demonstrations of Conventions for Interpretation Patterns.

The interpretation pattern is defined as the semantic deciphering process. The source for this interpretation process is not rooted in the syntactic relations mentioned by Hudson (1984, p. 76). It is rather a visual representation of every figure/ground relation within the NP, i.e., every relation between the prenominal adjective and its trajector. This is based on Langacker's (1987) argumentation that "a head is a type of figure [...], whereas the relation designated by the modifier constitutes the ground" and that, as a consequence, "the head is almost invariably placed in correspondence with the trajector of a nonfinite relational modifier [...]" (Langacker 1987, p. 235).

However, while I agree with the overall notion, the H of the NP is not always the trajector of the relational modifier. It is most certainly true for [EPITHET + HEAD] constructions like "clever girls", where the head *girls* is in correspondence with the trajector of *clever* (Langacker 1987, pp. 235-236). However, in constructions including a CLASSIFIER, as in *a red electric car*, the trajector of *red* is not the head but the combination of CLASSIFIER + HEAD, i.e., *electric car*. Furthermore, it is arguable whether, for example, SECONDARY DETERMINERS or FOCUS MARKER designate atemporal relations like *red* or *clever* do. The semantic function of the SECONDARY DETERMINER *different* correlates to that of a grounding element (instead of being the ground) and the FOCUS MARKER *mere* additionally implies a landmark, i.e., the norm (cf., *mere sight of a syringe* in chapter 2.3.7). It is therefore more accurate to say that arrows depict the most prototypical relation between a prenominal modifier and its trajector (i.e., inherent modifiers of EPITHETICAL function). Any non-prototypical relations (i.e., non-prototypical functions of an adjective in attributive position) are depicted by boxes with the exception of CLASSIFIERS; it remains to be seen whether specific functions, like CLASSIFIERS, are in need for distinct depiction conventions.

4. Study Design

This section summarizes the tools and approaches applied in this study to answer the questions raised in chapter 3 above. In order to make this study feasible, the number of prenominal elements in the NP was reduced to a maximum of two, i.e., an underlying structure of [(Primary Determiner) + ADJ1 + ADJ2 + Head]. To enable a systematic test for the prenominal elements, representative words for each of the seven functions were picked. The general query for the COCA was 'ADJ ADJ NOUN' for which the representative word was placed once in first "ADJ"-position and once in the second one, to maximize the number of possible environments in which the function might be encountered. To name an example, one representative word for

the function of EPITHET was *blue*; the queries for the COCA were therefore ‘ADJ blue NOUN’ and ‘blue ADJ NOUN’.

4.1. Representative Words

Each function is represented by two words except for FOCUS MARKER which is only represented by one since the functions of FMs cannot convincingly be found in words other than *mere*. Table 5 below summarizes the representative words for each function. While the total number of words is due to the limited scope of this study, the words themselves were chosen based on their semantic content (inspired by the study in Dixon 1982)⁵.

Table 5. Representative Words and their Respective Semantic Contents.

Function	Representative Word	Semantic Content
CLASSIFIER	<i>financial</i>	concerning CLASS
	<i>wooden</i>	made of CLASS
EPITHET	<i>blue</i>	color
	<i>rectangular</i>	physical property
SECONDARY DETERMINER	<i>(a) different</i>	another instance of H; ‘another’
	<i>various</i>	large number
ADJECTIVE-INTENSIFIER	<i>good</i>	positive value
	<i>bad</i>	negative value
NOUN-INTENSIFIER	<i>severe</i>	emphasis: high degree of H-unit
	<i>total</i>	emphasis: completeness of H-unit
METADESIGNATIVE	<i>possible</i>	high likeliness of hypotheticals
	<i>former</i>	applicability of term in the past
FOCUS MARKER	<i>mere</i>	H-unit is compared to implicit norm

For some of the representative words, an immediate lexical ambiguity is noticeable, even without providing any context. However, each token was checked for the function of the representative word; if it was of a different function than it was supposed to represent, the token was marked as ‘impermissible’. To provide irrelevant examples from the corpus, the following tokens were not included in the study since their semantic content did not match the function,

⁵ Special attention has to be paid to the SECONDARY DETERMINER *different*. Since the general intention for *different* is to encounter tokens that are predominantly of the meaning which can be paraphrased by *another*, the query for *different* in the first adjectival position included the indefinite article *a* resulting in ‘a different ADJ NOUN’. This decision is based on the impression that *different* preceded by a definite article cannot be paraphrased by *another* but rather by *various* which is treated as a separate representative word.

or the semantic content allocated in Table 5 above, or neither. Tokens from the corpus are enlisted by numbers in square brackets; they are tagged with the query which yielded that result; the adjective in focus is formatted in bold.

- [1] These characteristics suggest that a white LED can cause more **blue** light exposure than other domestic lighting sources.
(COCA: ‘blue ADJ NOUN’)
- [2] It's unfortunate that people involved are continuing to present him in the worst **possible** light.
(COCA: ‘ADJ possible NOUN’)
- [3] Together these groups comprise at least 83% of the **total** Asian population in the U.S.
(COCA: ‘total ADJ NOUN’)
- [4] It makes far less sense, some would argue, to hide them behind a microphone (the sole domain of the voice-over artist), particularly ones with less than stellar voices and **wooden** acting ability.
(COCA: ‘wooden ADJ NOUN’)

In token [1] above, the function of *blue* is predominantly that of a CLASSIFIER since it further subcategorizes the type of light. *Possible* in [2] refers not the likeliness of something occurring (as in *a possible republican candidate*), but rather to the feasibility of something; [2] can be rephrased as ‘in the worst light feasible’. While *total* in [3] does refer to completeness, here in the sense of ‘collective’ or ‘entire’, it does not intensify the scalar property of the H of the NP, as opposed to, e.g., *total unconditional love* (COCA: ‘total ADJ NOUN’). In [4], *wooden* functions as an EPITHET and ascribes a property to the H of the NP; the acting ability is not made of wood but rather described as forced and unnatural.

4.2. Data Collection

As mentioned above, the first step of acquiring tokens was the query of ‘ADJ ADJ NOUN’ in the Corpus of Contemporary American English; the representative word was once inserted into each of the ‘ADJ’-slots of the query. Provided enough tokens were available in the corpus, a random sample of 500 tokens were extracted by using the sample function of the corpus itself. For each query, a maximum of 500 randomized tokens were then analyzed for their eligibility. The tokens’ eligibility is based on the function and the semantic content of the representative words mentioned in Table 5 above. This aside, tokens in the COCA are often tagged wrong (e.g., every word is doubled due to, presumably, a bug), and two adjectives following each other may not be part of the same NPs, which is why it was necessary to check each token individually before tagging their function structure.

The goal for each query was to reach a minimum of 100 eligible tokens. Unfortunately, some queries did not even result in that high a number for total unchecked tokens, e.g., ‘ADJ mere NOUN’ which yielded only 45 tokens. Even if a query yielded more than 100 total tokens, 100 eligible ones are not guaranteed. ‘ADJ total NOUN’, for example, yielded 2189 total tokens, but out of the randomized 500 ones, only four were of the function NOUN-INTENSIFIER. Once the eligible tokens were gathered, each one was checked for its underlying function structure and tagged as such. To give some examples, tokens [5]-[7] below are all function structures encountered in the query ‘ADJ rectangular NOUN’.

- [5] In decorative features. 3508-58, a single **rectangular** strip, applied to the underside, covered the gap left by the shroud.
(COCA: ‘ADJ rectangular NOUN’) [**SD + EPI + HEAD**]
- [6] Detection of fragmented **rectangular** enclosures in very-high-resolution remote sensing images.
(COCA: ‘ADJ rectangular NOUN’) [**EPI + EPI + HEAD**]
- [7] Daisy was motionless, regarding me with those strange **rectangular** pupils.
(COCA: ‘ADJ strange NOUN’)
[**ADJ-I + EPI + HEAD**]

The SECONDARY DETERMINER “single” in the NP “a single rectangular strip” in [5] does not ascribe a property to the H of the NP but rather contributes to the identification of the instance referred to. “Fragmented” in [6] functions as an EPITHET since it takes a posterior perspective on the processual predication thus functioning as an atemporal relation. In [7], “strange” is tagged as an ADJECTIVE-INTENSIFIER. This is based on the argumentation provided by Ghesquière (2014) where the author argues that ‘less-bleached’ ADJ-Is can be traced back to Dixon (1982) and his argumentation of a VALUE-ADJ “qualif[ying] not the head noun, but some other adjective, which is taken out of its normal place in the ordering and placed immediately after the VALUE adjective” (Dixon 1982, p. 25). Based on this, it can be argued that the pupils in [7] are strange due to their rectangular shape.

4.3. Expectations and Predictions

The expectations and predictions about the results of this study are mostly based on the previous literature and studies mentioned in chapter 2. In terms of the function combinations that can be encountered, as mentioned in chapter 3.2 above, there seem to be no immediate restrictions when it comes to corpus data since erroneous or ungrammatical tokens may also be encountered. Therefore, I expect to find most of them – the only reason why one might not find all of them is due to the limited scale of the study.

Based on the previous literature, it can be expected that CLASSIFIERS are the right-most and SECONDARY DETERMINER the left-most element in a NPs in which they are included. There will undoubtedly be deviations from that pattern, but they should predominantly occur in this expected pattern. Related to CLASSIFIERS, it can be expected that the line between EPITHETS and CLASSIFIERS is rather blurry for most of the encountered tokens. The Classification-Zone approach by Ghesquière (2014) should mostly eliminate any ambiguity in such cases, e.g., *blue light exposure* or *blue helmets* where the EPITHETICAL meaning is clearly coexisting with the CLASSIFYING one. However, in this study, and especially regarding such examples, the pathway of semantic change from EPITHETS to CLASSIFIERS, or the other way around, is possibly observable and should not be dismissed by grouping them in a zone together with their head. This does not invalidate an approach as Ghesquière's (2014); it would rather be counterproductive to do so, given the aim(s) of this study.

Regarding the interpretation pattern of functions, as mentioned in chapter 3.1 above, every function should correlate to a distinct pattern. The conventions for displaying these interpretation patterns are based on Davidse & Breban (2019) and only include boxes and arrows. These conventions might not suffice to display the variation between the functions; however, one aim of the study lies on exploring the different functions and the correlated need for further ones rather than already refining the final conventions to depict functions. Nevertheless, a previous study of mine has shown that the notion of VALUE adjectives, as per Dixon (1982), yields more distinct interpretation patterns than the author initially described. It can, therefore, be expected that the function of ADJECTIVE-INTENSIFIER will be in need for readjustments after the analysis of the data.

The function of a FOCUS MARKER, as per Davidse and Breban (2019), correlates to a distinct semantic content (cf., 'Focus Marker' in Table 5 above). However, the fact that this content is, most likely, not retrievable in any other prenominal elements is interesting. Should the interpretation pattern be directly linked to *mere* only and thus based on the lexical semantics of the word, the function of a FM might be too specific and not a general underlying adjectival function but rather a specific interpretation triggered by the intrinsic semantic meaning of the word itself. Its behavior among other adjectives needs to be investigated to see if the function is clearly distinct from others (both semantically as well as distributionally) or if the function is word-specific and thus redundant in the context of this study.

Finally, combinations between the functions FOCUS MARKER, METADESIGNATIVE, ADJECTIVE-INTENSIFIER, and NOUN-INTENSIFIER, i.e., a total of 16 different combination patterns, are

expected to be encountered rather scarcely. This is based on the suspicion that a combination of/among these functions might be too cognitively demanding⁶ to effectively communicate its content. The combinations per se are definitely possible; however, some information intended to communicate to the listener/reader will likely be easier understood in a different form, e.g., a relative clause, or less ambiguous synonyms.

5. Results

In this section the results of the study are presented. Chapter 5.1 is concerned with the quantitative results and the findings and conclusions that can be drawn from them; chapter 5.2 is concerned with the qualitative findings which mostly involves the analysis of multiple individual tokens and the findings based on them. Where necessary and/or convenient, the findings are put in relation to the previous literature to discuss and elaborate on them.

5.1. Quantitative Results

Overall, seven functions were investigated represented by 13 words. Each word had two respective queries, ‘ADJ X NOUN’ and ‘X ADJ NOUN’ where ‘X’ represents the word. A total of 4,513 unfiltered tokens (i.e., number of tokens analyzed to reach a minimum of 100 eligible ones) were analyzed resulting in 2,344 eligible ones. Table 6 and Table 7 below summarize the overall token distribution for both general queries respectively.

Table 6. Total Number of Tokens for 'X ADJ NOUN' Query.

Function	X in ‘X ADJ NOUN’	Eligible Tokens	Unfiltered Tokens
CLASSIFIER	<i>financial</i>	131 (81.37%)	161
	<i>wooden</i>	107 (84.92%)	126
EPITHET	<i>blue</i>	107 (51.69%)	207
	<i>rectangular</i>	89 (65.93%)	135
SECONDARY DETERMINER	<i>different</i>	163 (84.02%)	194
	<i>various</i>	105 (90.52%)	116
ADJECTIVE-INTENSIFIER	<i>good</i>	111 (79.86%)	139
	<i>bad</i>	102 (75.00%)	136
NOUN-INTENSIFIER	<i>severe</i>	110 (83.97%)	131
	<i>total</i>	33 (6.65%)	496

⁶ While NPs with inherent adjectives like *blue rectangular box* only involve comparatively simple property attribution, NPs including any of the four functions may involve metalinguistic comments about the applicability of the prenominal element, intensification/modification of the scalar properties in other prenominal elements, or comparing the focus value to an implicit norm.

METADESIGNATIVE	<i>possible</i>	107 (65.24%)	164
	<i>former</i>	109 (68.55%)	159
FOCUS MARKER	<i>mere</i>	110 (90.16%)	122
TOTAL		1,384	2,286

Table 7. Total Number of Tokens for 'ADJ X NOUN' Query.

Function	X in 'ADJ X NOUN'	Eligible Tokens	Unfiltered Tokens
CLASSIFIER	<i>financial</i>	111 (95.69%)	116
	<i>wooden</i>	106 (95.50%)	111
EPITHET	<i>blue</i>	108 (79.41%)	136
	<i>rectangular</i>	108 (90.76%)	119
SECONDARY DETERMINER	<i>different</i>	103 (66.03%)	156
	<i>various</i>	90 (28.75%)	313
ADJECTIVE-INTENSIFIER	<i>good</i>	_*	_*
	<i>bad</i>	_*	_*
NOUN-INTENSIFIER	<i>severe</i>	110 (53.92%)	204
	<i>total</i>	4 (0.80%)	497
METADESIGNATIVE	<i>possible</i>	100 (23.58%)	338
	<i>former</i>	109 (56.77%)	192
FOCUS MARKER	<i>mere</i>	11 (24.44%)	45
TOTAL		960	2,227

As mentioned in the chapter 4.2 above, the overall aim was to gather a minimum of 100 eligible tokens for each representative word. The numbers in bold in Table 6 and Table 7 above mark those words for which the total number of eligible tokens was below 100, i.e., *rectangular* and *total* in 'X ADJ NOUN' (Table 6), and *various*, *total* and *mere* in 'ADJ X NOUN' (Table 7). Now consider Table 8 below which depicts the numbers for both total tokens as well as unique types for each query in the COCA. The numbers in bold correlate to the queries in Table 6 and Table 7 above. As can be seen, the numbers in bold for *rectangular*, *various*, and *mere* are relatively low, which is why, considering that some tokens can be tagged incorrectly, their respective total number of eligible tokens did not amount to 100. The NOUN-INTENSIFIER *total* is an exception here. Its queries yielded a high number of total and unique tokens; however, the meaning of *total* in those tokens was predominantly synonymous to 'summarized' or 'including everything'. This means that, in theory, by looking through more unfiltered tokens, one could

have gathered more eligible ones. The reason for a total number of eligible tokens lower than 100 was therefore not the corpus itself but rather the limited scope of this study.

Table 8. Total Number of Tokens (Total & Unique) for each Word in both Positions.

Function	X	‘X ADJ NOUN’		‘ADJ X NOUN’	
		Total	Unique	Total	Unique
CLASSIFIER	<i>financial</i>	656	362	24,824	11,322
	<i>wooden</i>	409	327	6,611	4,928
EPITHET	<i>blue</i>	2,325	1,751	14,546	8,495
	<i>rectangular</i>	135	120	568	523
SECONDARY DETERMINER	<i>different</i>	2,122	1,726	3,052	1,438
	<i>various</i>	14,579	10,804	340	315
ADJECTIVE-INTENSIFIER	<i>good</i>	23,289	12,940	8,817	5,056
	<i>bad</i>	3,004	1,840	4,219	2,695
NOUN-INTENSIFIER	<i>severe</i>	4,193	2,038	408	312
	<i>total</i>	8,161	4,418	2,189	1,484
METADESIGNATIVE	<i>possible</i>	7,233	5,461	9,146	3,977
	<i>former</i>	25,488	8,067	3,277	2,825
FOCUS MARKER	<i>mere</i>	1,843	1,657	45	44

An interesting deduction can be made, considering the unfiltered tokens. Since that number indicates how many tokens were necessary to gather, in an optimal scenario, a minimum of 100 eligible tokens, one could speculate about the meaning distribution of the representative word in that specific position. However, this has to be taken with a large grain of salt, since tokens may not be eligible due to being tagged incorrectly by the corpus or because the two adjectives are not part of the same NP. Nevertheless, the percentage provided in Table 6 and Table 7 are a very rough approximation of the semantic distribution of the representative word in its respective NP construction. In other words, for the word *financial* in the query ‘financial ADJ NOUN’, 81.37% were of CLASSIFIER function. However, in this case, the majority of ineligible tokens are due to wrong tags by the corpus, e.g., “[...] financial firm BTIG [...]” (COCA: ‘financial ADJ NOUN’) where the noun *firm* was considered an adjective by the corpus and the proper name “BTIG” is tagged as a noun, or as in the token “When even a financial professional struggles to get this decision right, [...]” (COCA: ‘financial ADJ NOUN’) where *struggles* is not the head of the hypothetical NP *financial professional struggles*.

Regarding the CLASSIFIER *financial*, a conclusion for the statistical distribution of the word's meanings in that specific NP construction is relatively ill-founded. However, for words like *possible* or *total* where the context may help eliminate or mitigate the lexical ambiguity of the representative word the percentage of eligible tokens may be somewhat indicative of the statistical distribution of the lexical semantics. The frequency of *total* as a NOUN-INTENSIFIER is, for example, astonishingly low; only 33 out of 496 possible tokens (i.e., 6.65%) were NOUN-INTENSIFIERS while the large majority were synonymous to “summarized” or “including everything”. On a similar note, while 51.69% of the word *blue* in the query ‘blue ADJ NOUN’ were EPITHETS, even while keeping a certain error-rate from the corpus in mind, a surprisingly large number of *blue*-tokens in that specific construction were of CLASSIFIER function. Again, it is of the uttermost importance to avoid drawing any ‘conclusions’ like these based on the percentage of eligible tokens. Nevertheless, it is a very early step into the direction of pinpointing the distribution of a word's semantics in a specific construction.

5.1.1. Encountered Function Combinations and their Statistical Distribution

Given the seven functions of prenominal elements and the underlying structure of the query, 49 different function combinations are, in theory, possible. For each of the representative word and in both its positions, 100 (if possible) of the eligible tokens were taken and analyzed for their underlying function structure; 33 out of the possible 49 function combination structures were encountered. Table 9 below visualizes the encountered combinations; Table 10 and Table 11 display the statistical distribution of the individual words among other functions for the respective queries ‘X ADJ NOUN’ and ‘ADJ X NOUN’.

In Table 9, three combination patterns are marked with an asterisk. The study has shown that the distinction into these seven functions does not convincingly cover all tokens, given that a specific interpretation pattern should correlate to an individual function. However, in the context of this study, the tokens were preliminarily tagged according to the function-system of this study. For future studies, additional functions should be employed to be able to convincingly categorize all tokens. More detail about this issue will be provided in chapter 5.2 below when addressing the qualitative findings of this study.

On a similar note, since the definition of ADJECTIVE-INTENSIFIER is based on Ghesquière (2014) which states that they “modify or indicate the extent of a quality or property denoted by a descriptive modifier they immediately precede”, it seemed unreasonable to tag *good* and *bad* when immediately preceding the H of a NP as an ADJECTIVE-INTENSIFIER (2014, p. 35). There

is no doubt that one would encounter enough examples; however, adjectives like *good*, *bad*, *perfect*, *lovely*, *weird*, or *strange* which are followed by the H of the NP cannot convincingly function as an ADJECTIVE-INTENSIFIER as defined in this study⁷. Based on this, i.e., the decision to not treat such instances of *good* and *bad* in the query ‘ADJ good/bad NOUN’ as ADJECTIVE-INTENSIFIER, the ‘ADJ-I’-row in Table 11 does not display any results. This is also the reason why the two function combinations in the ‘ADJ-I’-column in Table 9 are marked by an asterisk. In other words, if, for example, *good* does not precede any other adjective, there is simply no element of which the scalar property can be intensified or modified. However, if an implicit property is being qualified, that construction results in a different interpretation pattern. In a future study the function of ADJECTIVE-INTENSIFIER is in need for further subcategorization (cf., chapter 5.2.2.3 below).

⁷ The qualification of an implicit property, e.g., *good fast car* means *good car because it is fast*, is treated as a separate function. This decision is based on the fact that *good* in *good fast car* does not intensify or modify the scalar property of the adjective it precedes. Additionally, qualifying the next adjective results in a different interpretation pattern compared to that of ADJECTIVE-INTENSIFIERS, hence a separate function. This issue is discussed in detail in chapter 5.2.2.3 below.

Table 9. All Encountered Function Combinations of Underlying NP Structure [ADJ ADJ HEAD].

	SD	FM	MD	N-I	ADJ-I	EPI	CLASS
SECONDARY DETERMINER (SD)	SD + SD	SD + FM	SD + MD	SD + N-I	SD + ADJ-I*	SD + EPI	SD + CLASS
FOCUS MARKER (FM)	FM + SD		FM + MD			FM + EPI	FM + CLASS
META-DESIGNATIVE (MD)			MD + MD	MD + NI		MD + EPI	MD + CLASS
NOUN-INTENSIFIER (N-I)	N-i + SD			N-I + N-I		N-I + EPI	N-I + CLASS
ADJECTIVE-INTENSIFIER (ADJ-I)	ADJ-I + SD		ADJ-I + MD		ADJ-I + ADJ-I*	ADJ-I + EPI	ADJ-I + CLASS
EPITHET (EPI)	EPI + SD*	EPI + FM	EPI + MD	EPI + N-I		EPI + EPI	EPI + CLASS
CLASSIFIER (CLASS)			CLASS + MD			CLASS + EPI	CLASS + CLASS

Table 10. Distribution of Functions: X ADJ HEAD.

	X	ADJ							Number of Tokens
Function		SD	FM	MD	N-I	ADJ-I	EPI	CLASS	
CLASSIFIER	<i>financial</i>						6	94	100
	<i>wooden</i>						9	91	100
EPITHET	<i>blue</i>				2		57	41	100
	<i>rectangular</i>						45	44	89
SECONDARY DETERMINER	<i>different</i>	3		1		1	33	62	100
	<i>various</i>	17					22	61	100
ADJECTIVE-INTENSIFIER	<i>good</i>			3		1	44	52	100
	<i>bad</i>					8	22	70	100
NOUN-INTENSIFIER	<i>severe</i>	1					5	94	100
	<i>total</i>				4		8	21	33
METADESIGNATIVE	<i>possible</i>			4			30	66	100
	<i>former</i>						7	93	100
FOCUS MARKER	<i>mere</i>	2		1			32	65	100

Table 11. Distribution of Functions: ADJ X HEAD.

	ADJ							X	Number of Tokens
Function	SD	FM	MD	N-I	ADJ-I	EPI	CLASS		
CLASSIFIER	16		5		1	56	22	<i>financial</i>	100
	1				2		97	<i>wooden</i>	100
EPITHET					39	60	1	<i>blue</i>	100
	2				1	97		<i>rectangular</i>	100
SECONDARY DETERMINER	29				70	1		<i>different</i>	100
	90							<i>various</i>	90
ADJECTIVE-INTENSIFIER	-	-	-	-	-	-	-	<i>good</i>	-
	-	-	-	-	-	-	-	<i>bad</i>	-
NOUN-INTENSIFIER	40		3	1		56		<i>severe</i>	100
	1		1	2				<i>total</i>	4
METADESIGNATIVE	90					10		<i>possible</i>	100
	16		7			68	9	<i>former</i>	100
FOCUS MARKER	6					5		<i>mere</i>	11

As mentioned in chapter 4.3 above, it was expected that CLASSIFIERS are not followed by functions other than themselves, apart from a few exceptions. Regarding the representative CLASSIFIERS *wooden* and *financial*, the results are as expected. For the query ‘X ADJ NOUN’, as Table 10 shows, 94% percent of *financial* tokens and 91% of *wooden* tokens were followed by another CLASSIFIER. Only in a combined number of 15 tokens were the CLASSIFIERS followed by an EPITHET. However, this is not necessarily a deviation from any adjectival order restrictions, but rather something which can be explained by the Current Discourse Space and the notion of given/new information (cf., chapter 2.3.3.2).

- [8] I’m a conservative **former** cop [...].
(COCA: ‘ADJ former NOUN’)
- [9] [...] said the Cuban-born **former** diplomat, who criticized Obama for not fulfilling his promise [...].
(COCA: ‘ADJ former NOUN’)

As for the overall encountered function combinations in Table 9, CLASSIFIERS may also be followed by METADESIGNATIVES. *Former* was preceded by a CLASSIFIER 9% of the time; consider, for example, tokens [8] and [9] above. Interestingly enough, in all of the tokens, the CLASSIFIER preceding *former* expressed a more permanent feature, i.e., nationality or political orientation, compared to the rather temporary notion expressed by the Head of the NP. If *former* were to precede the CLASSIFIER, it would scope over the rest of the NP tagging the entirety of it as ‘only applicable in the past’. In [8] and [9] the notion expressed by the CLASSIFIERS remains, as opposed to the one expressed by the H of the NP, applicable in the present.

The expectations for SECONDARY DETERMINER, on the other hand, did not hold true to the same extent. While *various* was preceded only by other SECONDARY DETERMINERS, *different* was predominantly preceded by ADJECTIVE-INTENSIFIER and arguably even by an EPITHET (cf., Table 8). Furthermore, *mere* and *severe* preceded SECONDARY DETERMINERS for a total of three times (cf., Table 10). Despite the argumentations in the previous literature about SECONDARY DETERMINERS not being gradable or intensifiable, *different* is, as observed in the American English variant, in 69% of tokens preceded by an ADJECTIVE-INTENSIFIER. More details about this observation and its correlated speculations will be provided in chapter 5.2.2.1 below.

Note the double-bordered lines in Table 9, 10, and 11 above; these lines highlight all function combinations among the functions FOCUS MARKER, METADESIGNATIVE, NOUN-INTENSIFIER, and ADJECTIVE-INTENSIFIER, i.e., a total of 16 possible combinations. According to Table 9, six out of 16 function combinations were attested. However, considering Table 10 and Table 11, the overall number of the tokens of these function combinations is comparatively low. More

precisely, only 21 out of a total of 633 tokens (cf., Table 10) and only 14 out of 315 tokens (cf., Table 11)⁸ were function combinations among the four above-mentioned functions. Put differently, only 3.69% of FM-, MD-, N-I-, and Adj-I-tokens form a function combination among themselves. This low number of occurrences is not surprising given that each of the four functions signifies a comparatively more cognitively demanding interpretation pattern and, of course, the low number of total *mere*-tokens in the corpus. Nevertheless, the information communicated by a NP of an underlying function structure like, for example, [MD + N-I + H] might be easier understood and communicated by (re-)formulating some of its content as, for example, a relative clause. In other words, these function combinations are, presumably, relatively rare because their content could be expressed in a more listener-/reader-friendly form with less of a cognitive demand.

5.2. Qualitative Results

This section is predominantly concerned with findings and hypotheses that are based on the analysis of individual tokens. Overall, the qualitative findings are grouped according to token-specific issues (chapter 5.2.1) in which singular discrepancies or intricacies are highlighted. Chapter 5.2.2 is concerned with function-related issues, i.e., overarching issues that were repeatedly encountered and therefore highlighted a more systemic discrepancy in the overall system of the study.

5.2.1. Token-specific Issues

This section addresses those issues which can be pinpointed to a small number of tokens which could be considered anomalies or exceptions. However, in the light of descriptive linguistic analysis, these issues are also in need of further elaboration. The [CLASSIFIER + EPITHET + HEAD] combination pattern, the preliminary analysis of expletives, and the close relationship between NOUN-INTENSIFIER and their head are discussed in the respective sections below.

5.2.1.1. Classifier

The CLASSIFIER function was the one for which the least discrepancies were expected. An interesting matter, however, concerns the coordination of CLASSIFIERS. Consider token [10] below. While Matthews (2014) does not explicitly address or acknowledge the functional differences between CLASSIFIERS and EPITHETS, the author suggested that a coordination of two

⁸ The numbers 633 and 315 refer to the total number of tokens which contain one of the four functions in question, i.e., FOCUS MARKER, METADESIGNATIVE, NOUN-INTENSIFIER, and ADJECTIVE INTENSIFIER.

“equally subordinated adjectives” implies that the instance referred to belongs to a class that has both properties (Matthews 2014, p. 89) (cf., *large and fluffy animals* in chapter 2.4.2 above). However, applying this notion to token [10] below would suggest that the clients referred to must belong to a class that is of both corporate and financial institution nature.

- [10] The American authorities can not speak to how the corporate and **financial** institutional clients of BNP Paribas will react, [...]
(COCA: ‘financial ADJ NOUN’)

This, however, is presumably not the case; much rather, the speaker refers to both subtypes of clients separately, the corporate ones and the financial institutional ones. Token [10] above is one of many reasons why the coordination of prenominal elements, even if only regarding equally subordinated (i.e., of the same function) ones, is no simple matter that can be generalized over.

Even if a CLASSIFIER were to be followed by an EPITHET, an ‘anomaly’ like this could be explained with the help of the Current Discourse Space (as per Langacker 2008) and the notion of given/new information (as per Prince 1981). Consider, for example token [11].

- [11] Cue an intercession of moe, albeit in a manner both unusual and relevant -- a barrel washes up upon an island, and emerging from this **wooden** cylindrical enclosure is a stunning bishoujo.
(COCA: ‘wooden ADJ NOUN’)

In this case, the barrel was introduced in the previous main clause. The cylindrical shape can be understood as a natural implication triggered by the noun *barrel*. The material it is made of, however, may vary, which is why *wooden*, despite being a CLASSIFIER, is arguably the newer information compared to *cylindrical*. Therefore, the CLASSIFIER precedes the EPITHET.

5.2.1.2. Epithet

For one SECONDARY DETERMINER token, a rather unexpected function pattern was encountered, namely [EPITHET + SECONDARY DETERMINER + HEAD]. However, that single token was only tagged as such simply for a lack of a better alternative. The issue addressed in this subsection is similar to that of ADJECTIVE-INTENSIFIERS which are in need for further subcategorization (cf., chapter 5.2.2.3 below). Consider token [12] below; the prenominal element preceding the SECONDARY DETERMINER was preliminarily tagged as an EPITHET.

- [12] You know, infested with, like, rats and roaches and different things like that. Se we went through a lot of different -- Our own **little** different traumas our own little different traumas as a kid, waiting for her. How - - how you deal, really

actually deal with that life?
(COCA: ‘ADJ different NOUN’)

However, despite initially seeming like an EPITHET, the use of *little* in [12] can be described as affective and functions similarly to constructions like *silly little things* or *poor little dog*. Since *little* does not always necessarily ascribe the property to the instance referred to, it does not function as a true EPITHET; neither does it contribute to the identification of the instance like a SECONDARY DETERMINER would. It is, therefore, most likely, in need for its own function since the correlating interpretation pattern cannot be convincingly allocated to existing functions.

5.2.1.3. Noun-Intensifier

From the analysis provided by Davidse & Breban (2019) it is not entirely clear if a NOUN-INTENSIFIER also falls within the scope of the EPITHET that precedes it. According to the authors’ depiction of the dependency structure of such constructions, there is no interaction between the EPITHET and the NOUN-INTENSIFIER it precedes (cf., Davidse & Breban 2019, p. 349); however, when reformulating the NP *sad utter stupidity*, the authors note that “[t]he epithet *sad* adds a further subjective property description: the (utter) stupidity is sad.” (2019, p. 349). Since NOUN-INTENSIFIERS cannot be put in predicative position, this reformulation is the only permissible one, which indicates that *sad* arguably modifies the unit *utter stupidity*.⁹

Further evidence for the close relationship between NOUN-INTENSIFIERS and the unit they modify can be found in tokens [13], [14] and [15] below. In [13], thunderstorms in general might, by implication, not be rare at all, but severe thunderstorms certainly are. Similarly, in [14], the enlargement of the left ventricle might not have occurred, were the use of steroids in moderation; it was rather the severe use that caused the hypertrophy. Finally, in [15], a combination pattern of [METADESIGNATIVE + NOUN-INTENSIFIER + HEAD], the speaker speculates about the possibility of a severe weather condition occurring rather than speculating about the possibility of weather occurring.

- [13] A rare **severe** thunderstorm hits the Twin Cities and leaves a coating of ice an inch thick.
(COCA: ‘ADJ severe NOUN’)
- [14] [...] hypertrophy (enlargement) of the left ventricle of the heart from long-term severe use of steroids, [...]
(COCA: ‘ADJ severe NOUN’)
- [15] The associated front will race trough Uruguay, Northern Argentina and Southern Brazil with possible **severe** weather (high winds, hails and even isolated

⁹ The argumentation here is based on the depictions provided in Davidse and Breban (2019); the authors use an arrow from *sad* to *utter*, thus indicating that *sad* is a representational modifier rather than an interpersonal one.

tornadoes).
(COCA: 'ADJ severe NOUN')

It can be argued that, especially in the realms of medicine and meteorology, the combination of *severe* and the H of the NP approximate a [CLASSIFIER + HEAD] construction. However, since *severe* is gradable, e.g., “very severe cases of IBS-D” (COCA), it is not permissible as such. Nevertheless, tokens [13], [14], and [15] demonstrate that a N-I can form a closer unit with the H of the NP once the phrase has conventionalized to a certain degree and may consequently also receive the property ascribed by a prenominal element it follows.

Reminiscent of the issue of the affective use of EPITHET-like elements, expletives form a similar problem. For the lack of alternative, in this study, expletives were analyzed as NOUN-INTENSIFIER. There is, however, no doubt that expletives require their own function¹⁰, as demonstrated by tokens [16], [17], and [18] below. Not only do none of the expletives below correlate to a true NOUN-INTENSIFIER function, but they also differ in their semantic content and behavior.

- [16] That's a bad **fucking** call, Andy, but it's your life.
(COCA: 'bad ADJ NOUN')
- [17] So, Arafat, if I see you bad-mouthing a religion because of its bad people or excesses, I will just remind you that every other major religion has essentially the same **fucking** problem. You should quit your " ISLAM IS A BAD BAD RELIGION " gimmick.
(COCA: 'bad ADJ NOUN')
- [18] One more word. One more word, and I'll be wearing your blue **fucking** eyes as cuff links.
(COCA: 'blue ADJ NOUN')

The expletive in [16] could be interpreted as a retrospective intensifier for *bad*. In [17] and [18], *fucking* has no intensifying function at all but rather expresses the speakers' disapproval of or anger about something happening prior in the discourse.

Another interesting aspect about NOUN-INTENSIFIER regards the word *total*. During the initial analysis, a total of three different meanings and correlated functions were encountered. *Total* can either mean “all encompassing”/“summarized” as in [19] below; it could be analyzed as an ADJECTIVE-INTENSIFIER that intensifies the scalar property of the adjective it precedes as in

¹⁰ Cf., for example, Mackenzie's (2019) chapter *The syntax of emotional expletive in English*.

[20]¹¹; or as a NOUN-INTENSIFIER intensifying the scalar property of the unit it precedes, always including the H of the NP, as in [21].

- [19] The new **total** pot was announced as \$3,561,621.
(COCA: 'ADJ total NOUN')
- [20] He's -- it's a **total** different animal, in my opinion.
(COCA: 'ADJ different NOUN')
- [21] I am empty, bitter, angry and desperately lost.... What a Goddamn **total** waste.
(COCA: 'ADJ total NOUN')

5.2.2. Function-Related Issues

This section is concerned with overarching findings and systemic issues encountered during the analysis. These might be exemplifiable by individual tokens, but the core of the issue/phenomenon is located in (the definition of) the notion of the function itself. Two semantic pathways of change are hypothesized, namely that from EPITHETS to SECONDARY DETERMINER observable in the SD *different*, and that from EPITHETS to METADESIGNATIVES as observed in the MD *possible*. Furthermore, the definitions and notions of both ADJECTIVE-INTENSIFIERS and FOCUS MARKERS questioned and discussed.

5.2.2.1. Pathway of Change: from Epithet to Secondary Determiner

By comparing the data gathered by *different* to that by *various*, a relatively clear juxtaposition of two different states of grammaticalization can be observed. In both cases, the SECONDARY DETERMINER function of the words carries some remnants of their EPITHETICAL equivalents (Breban 2010a, p. 158). Consider, for example, tokens [22] and [23] below in which both words predominantly underline the dissimilarity of the instances referred to/implied. *Different* in [22] is clearly an EPITHET since it is gradable and does not change its meaning in predicative position (cf., *the interesting result is different*); *various* in [23] is a SECONDARY DETERMINER since it contributes to the identification of other instances while simultaneously underlining their dissimilarity.

- [22] But then we have this interesting **different** result.
(COCA: 'ADJ different NOUN')
- [23] [...] as you've seen me say on other **various** blogs, I too, get close to tears [...]
(COCA: ADJ various NOUN)

However, the more their semantic content shifts towards their SECONDARY DETERMINER meaning, the further left *various* and *different* they are in the NP. The word 'shift' is important

¹¹ It must be noted that *total* in [20] is part of a larger problem, i.e., a discussion about adjectives and adverbs in the American English variety. The query 'total different NOUN' yields 606 unique tokens while 'total different NOUN' only yields 17 unique ones. In the British National Corpus, 'total different NOUN' has no matching records.

here, since their implicit EPITHETICAL meaning is still retrievable. In other words, the further left *various* is positioned, the more it means ‘multiple’ and the less it means ‘unlike’; the further left *different* is positioned, the more it means ‘(a)nother instance of X’ and while still meaning ‘unlike’. This becomes evident when considering tokens [24] and [25] below. In [25] the EPITHETICAL meaning of *various* as in ‘unlike’ is not necessarily implied anymore, or arguably less so compared to [23]; in [24], *different* shifts more towards the meaning of ‘other instance of X’ while still carrying the meaning ‘unlike’ but arguably less so compared to [22] above.

- [24] My new boss, he signs all of his emails with a **different** inspirational quote.
(COCA: a different ADJ NOUN)
- [25] This achievement is in line with **various** earlier studies such as Lingakumar et al. (2014) [...]
(COCA: ‘various ADJ NOUN’)

The different stages of the words’ ability to retain both meanings are observable when combining both words in a NP. The query ‘various different NOUN’ yields 122 unique tokens in the COCA, while ‘different various NOUN’ only yields 3 tokens. This difference is possibly also the reason as to why, in the same function combination structure, *different* is more likely to underline its EPITHETICAL meaning than *various* does. Consider Table 12 below which displays some of the function combinations encountered for both *different* and *various* in the query ‘X ADJ NOUN’. Juxtaposing the combination patterns negates another variable and allows to further pinpoint the retrievability of EPITHETICAL meaning to the lexical element itself, rather than to, in this case, the underlying function structure.

Table 12. Juxtaposition of Function Combinations for various and different in 'X ADJ NOUN' (COCA).

Function Combination	<i>Various</i>	<i>Different</i>
SD + SD + HEAD	There are various different reasons why an arrest [...]	[...] a byproduct of an activity with a different primary purpose.
SD + EPI + HEAD	[...] will enable more efficient production of various useful materials, including [...]	[...] we would watch a different scary movie every weekend like clockwork.
SD + CLASS + HEAD	[...] the wider audience reached by various British newspapers in the wake of the crisis [...]	[...]to acquire it through a different streaming service or direct download.

Further evidence for the difference in the words’ ability to retain both meanings is the fact that the EPITHETICAL meaning in *different* is intensifiable while the SECONDARY DETERMINER meaning is preserved. This is inconsistent with the definitions of SDs provided in chapter 2.3.3

above; however, regarding the American English variety represented by the COCA, *different* is indeed intensifiable, as can be seen in, for example, tokens [26] and [27] below. The underlying function structure in [26] and [27] is [ADJ-I + SD + H] since *whole* and *far* intensify the scalar property of the adjective they precede.

- [26] Someone from a different culture in a -- in a whole **different** region, he was confused, as well.
(COCA: 'ADJ different NOUN')
- [27] But, yesterday, it was a far **different** story.
(COCA: 'ADJ different NOUN')

Based on the above, it can be argued that *different* as a SECONDARY DETERMINER is in a stage of grammaticalization that can be situated somewhere between a prototypical SECONDARY DETERMINER and a prototypical EPITHET. This conclusion is based on the fact that the American English variety allows for an intensification of *different* without the word losing its SD-meaning. Furthermore, compared to *various*, in identical function combinations, the EPITHETICAL meaning of *different* is more likely to be retrievable despite being of SD function.

5.2.2.2. Pathways of Change: from Epithet to Metadesignative

Similarly to the argumentation provided for the SECONDARY DETERMINER *difficult*, the METADESIGNATIVE *possible* is arguably in a stage between a prototypical EPITHET and a prototypical METADESIGNATIVE where both meanings are retainable. This becomes evident when considering the behavior of *former*, a prototypical MD, and the retrievability of the EPITHETICAL meaning in *possible*.

The analysis of *possible* as a METADESIGNATIVE proved to be very difficult at first. As with *difficult*, the line between the inherent use and the non-inherent use is very fuzzy and sometimes both meanings can be implied. Generally speaking, the EPITHETICAL meaning of *possible* can be paraphrased as *feasible*, *available*, *achievable*, etc.; the METADESIGNATIVE meaning sometimes encompasses the EPITHETICAL one but certainly signifies a certain statistical tendency or hypothetical possibility of X occurring. Based on this, it follows that *possible* in [28] and [29] is an EPITHET, while in [30], *possible* is a METADESIGNATIVE.

- [28] [...] I would want my emergency manager to have the best **possible** information to make their decision.
(COCA: 'ADJ possible NOUN')
- [29] Therefore, the highest **possible** score is 50 percent.
(COCA: 'ADJ possible NOUN')
- [30] The only **possible** problem would be if Washington and the U.N. aren't in synch.
(COCA: 'ADJ possible NOUN')

- [31] The library was housed in a beautiful **former** church. The crosses were still on the steeple and the stonework was magnificent.
(COCA: ‘ADJ former NOUN’)

The content of token [28] can be paraphrased as *the best information available*; similarly, [29] can be paraphrased as *the highest achievable score*. In [30], however, *possible* comments on the term *problem* indicating that the term is only applicable in the hypothetical scenario of Washington and the U.N. not being in sync. In other words, a METADESIGNATIVE comments on the applicability of a term by relating its applicability to, in the case of *possible*, a hypothetical scenario. *Former*, on the other hand, relates the applicability of a term to a past scenario, meaning that the term was applicable, but is no longer so in the present (cf., token [31] above). As opposed to *possible*, *former* does not have an EPITHETICAL meaning retrievable from the METADESIGNATIVE use.

The fuzzy lines between *possible* as a METADESIGNATIVE and as an EPITHET arguably stem from the fact that, in order to be hypothetically feasible, some amount of realistic feasibility needs to be present. In other words, if something is a possible answer, i.e., some line of argumentation that could hypothetically be the answer to a question/problem, that line of argumentation has to have some realistic, objectively observable reason to actually be the answer. The METADESIGNATIVE meaning of *possible* is rooted in the EPITHETICAL one. This makes the analysis of tokens rather difficult but hints to the fact that *possible* can be situated somewhere between METADESIGNATIVES and EPITHETS. Again, to reduce the ambiguity of *possible* to the lexical element itself, consider Table 13 below; it compares tokens of both *possible* and *former* of identical function structure patterns.

Table 13. Juxtaposition of Function Combinations for *former* and *possible* (COCA).

Function Combination	<i>Former</i>	<i>Possible</i>
MD + EPI + HEAD	White males lost their former dominant position in the workplace, perhaps from lack of ambition [...]	That's just one of the possible unintended consequences of solar geoengineering.
MD + CLASS + HEAD	One former Afghan translator for US and British forces knows those tools well.	Banks must file such reports when transactions are spotted that raise questions about possible financial misconduct.
SD + MD + HEAD	But he is not the only former superstar who is struggling to get back on the right track.	So it had to land heads. There's no other possible outcome.

EPI + MD + HEAD	A half dozen anonymous former nurses have accused Lee of sexual impropriety; Lee denies the allegations.	If one or more new possible buyers line up, that should either ramp up the pressure for existing candidates [...]
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Interestingly enough, the combination of a superlative preceding *possible* inhibits the METADESIGNATIVE reading of it. The superlative indicates the highest degree of the property ascribed and implies an upper and lower limit based on realistic feasibility within a given context. It is unproductive to speculate about, for example, the cheapest price without providing real, feasible limitations¹². This is, arguably, also the reason why the EPITHETICAL *possible* in [superlative + *possible* + HEAD] constructions can be put into postpositive position without changing the meaning. An adjective in postpositive position is in need for further contextualization and implies a rather temporary ascription of the property compared to an adjective in prenominal position. Consider, for example, tokens [32] and [33] below; in both tokens, *possible* can be put in postpositive position without changing the meaning.

- [32] One state trooper in his protective entourage would complain on the campaign press bus about reporters " using all them' postrophes " in recording Wallace's rambling chatter. Old George himself would endlessly lament their appearance on what he called their " distortin' trips " casting him in the worst **possible** light.
(COCA: 'ADJ possible NOUN')
- [33] But when Josh told me that Roundabout Theatre was producing its premiere, I was really gobsmacked in the best **possible** way.
(COCA: 'ADJ possible NOUN')

Based on the argumentation above, it can be argued that *possible* as a METADESIGNATIVE is positioned somewhere between a prototypical MD and its EPITHETICAL counterpart. This hypothesis is based on the observations that the MD *possible* carries remnants of its EPITHETICAL meaning, arguably even stemming from it. Additionally, the intensification of *possible* as an MD is not possible (a feature of MDs) since it triggers its EPITHETICAL counterpart which can be paraphrased as, for example, *feasible* or *achievable*.

5.2.2.3. The Issue of Adjective-Intensifiers

As already hypothesized above, the function ADJECTIVE-INTENSIFIER as defined in chapter 4.3 above, proved to be insufficiently delineated for this study. The study has shown that the notion of ADJECTIVE-INTENSIFIER is, for future studies, in need for further subcategorization. The problem lays within the definition provided by Ghesquière (2014) who in turn refers to Dixon

¹² The METADESIGNATIVE *possible* in predicative position is not permissible since that construction would imply the realistic feasibility of X (cf., *a possible answer* vs. *this answer is possible*).

(1982). Within the realm of ADJ-I by Ghesquière (2014) and Dixon's (1982) VALUE Adjectives, three different interpretation patterns are arguably discernible which cannot possibly be encompassed by one function, let alone by two representative words.

First, Ghesquière (2014) mentions the function of a prenominal element “modify[ing] or indicat[ing] the extent of a quality or property denoted by a descriptive modifier they immediately precede” (2014, p. 35). This correlates to the function predominantly realized by adverbs. Second, Ghesquière (2014) refers to Dixon (1982) who allegedly made “[t]he point that there are also adjective-intensifiers that are much less semantically bleached” (2014, p. 35). However, the argument by Dixon (1982, p. 25), that VALUE adjectives “qualif[y] not the head noun, but some other adjective [...]” describes an interpretation pattern and function entirely different to the function of ADJECTIVE-INTENSIFIERS. As mentioned in chapter 2.3.4 above, Dixon (1982) argues that, in *a good fast car*, the car is considered good due to its speed (cf., Dixon 1982, p. 25). There is no intensification of adjectives involved; *good* does not modify or indicate the extent of a quality of the descriptive modifier it precedes. Third, if a VALUE adjective were to precede the H of the NP directly, Dixon (1982) argues that the quality that qualifies the H of the NP according to the value ascribed by the VALUE adjective is implicitly provided by the context (1982, p. 26). Again, the VALUE adjective would not intensify any scalar property of the implicit quality.

This means that the query ‘good/bad ADJ NOUN’ and ‘ADJ good/bad NOUN’ could yield up to three different interpretation patterns out of which the true ADJECTIVE-INTENSIFICATION, i.e., intensifying the scalar property of the adjectival element it precedes, is definitely the rarest one. This discrepancy is not displayed by the quantitative results since the need for further subcategorization had yet to be established at the beginning of the study. Nevertheless, in what follows, several tokens will be provided that underline the need for further subcategorization of functions.

5.2.2.3.1. True Adjective-Intensifier

As mentioned above, the function of ADJECTIVE-INTENSIFIER should, in future studies, be defined as those elements which intensify the scalar property of the prenominal element they precede and treated separately from VALUE adjectives’ interpretation pattern. The prenominal element can, however, not be a CLASSIFIER since its function is to indicate the subcategory of the instance referred to – a subcategory is not intensifiable. True ADJECTIVE-INTENSIFICATION by adjectives is relatively rare since it is mostly realized by adverbs. In addition to [26] and [27]

above, consider tokens [34], [35], and [36] below; the elements in bold can be considered ADJECTIVE-INTENSIFIERS.

- [34] It's a **real** different incarnation of the Man of Steel.
(COCA: 'ADJ different NOUN')
- [35] But I had a really **good** fake cough.
(COCA: 'good ADJ NOUN')
- [36] But Lou reconsidered, concerned that the **dark** blue silk might clog the machine.
(COCA: 'ADJ blue NOUN')

For token [34], the reasoning is identical to [26] and [27]; in the American English variety, *far*, *whole*, and *real* can be used to intensify the scalar EPITHETICAL property in the SECONDARY DETERMINER *different* (cf., chapter 5.2.2.1 above). *Fake*, in [35], is analyzed as a METADESIGNATIVE; *good* is arguably an ADJECTIVE-INTENSIFIER because it indicates that the faking of a cough was well executed, i.e., in a way that it could be identified as a real cough. Additionally, *fake* and *good* cannot be put in predicative position without changing the meaning of the NP; *the cough is fake and really good* is not equivalent to *a really good fake cough*. This hints to the fact, that *fake* and *good* do not individually modify *cough*. Based on the above, I argue that *good*, in [35] can be analyzed as an ADJECTIVE-INTENSIFIER which intensifies the scalar property of the element it precedes, namely *fake*. On a similar note, *dark*, in [36], modifies the quality of *blue*; it more accurately pinpoints the hue in the general color space of blueness. Again, this conclusion is based on the fact that both individual adjectives in predicative position seems rather odd (cf., *the silk is dark and blue*), but the predication of the two adjectives in the structure of [[Adj]Adj] appears grammatical (cf., *the silk is dark blue*).

5.2.2.3.2. Interpretation of Value Adjectives (Dixon 1982)

This section is concerned with the interpretation of both VALUE adjective patterns, i.e., explicit qualification of the prenominal element the VALUE adjective precedes and implicit qualification of a property retrievable from the context, as observed by Dixon (1982). Below, arguments will be provided that underline the necessity to clearly delineate the interpretation pattern of VALUE adjectives from that of ADJECTIVE-INTENSIFIERS. The starting point of this discussion are the data yielded by the representative words *good* and *bad* which initially were intended to represent the function of ADJECTIVE-INTENSIFIERS.

In an explicit VALUE interpretation pattern, the H of the NP receives the value ascribed by the VALUE adjective due to the property ascribed by the adjective that is preceded by the VALUE adjective. Consider, for example, tokens [37], [38], and [39]; the elements in bold can be considered VALUE adjectives triggering a, what is here referred to as, VALUE reading. The

adjective in italics is arguably the reason why the H of the NP receives the value ascribed by the VALUE adjective. In [37], the investigation qualifies as good due to its thoroughness. The pass referred to in [38] is considered very bad because the weight while throwing the ball was shifted to the back foot rather than to the front one. In [39], the values are considered good because they stem from the Christian belief system.

- [37] In any case when you lose an American soldier or just any American you need a **good** *thorough* investigation.
(COCA: ‘good ADJ NOUN’)
- [38] He threw a very **bad** *back-footed* pass that should have been intercepted [...].
(COCA: ‘bad ADJ NOUN’)
- [39] There are too many people out there that have fallen away from God and **good** *Christian* values.
(COCA: ‘good ADJ NOUN’)

Obviously, some NPs of the underlying function structure [*good/bad* + ADJ + NOUN] result in a rather strange interpretation if one were to apply an explicit VALUE reading of the NP. Consider, for example, tokens [40] and [41] below. In [40], the care cannot be good because it is diabetic; in [41], the habits cannot be bad because they are driving. Admittedly, these rephrased interpretation of [40] and [41] assume that the elements in italics are EPITHETS, which is not the case. But even when rephrased in a similar manner to [39] where the element in italics is also a CLASSIFIER, the rephrased interpretation is odd and does not match the content in the tokens: the care is good because it treats diabetes, and the habits are bad because they are concerned with your driving style.

- [40] While patient autonomy and shared decision making are central to **good** *diabetic* care, it is essential that [...].
(COCA: ‘good ADJ NOUN’)
- [41] These paintings on the pavement are the greatest idea ever. Only a moron would think that ANYTHING meant to slow down traffic is bad. So slow down, stop trying to blame someones good idea for your **bad** *driving* habits.
(COCA: ‘bad ADJ NOUN’)

With examples like [40] and [41] it follows that the interpretation pattern of VALUE adjectives must be an implicit one, i.e., the reason as to why the care is good and why the habits are bad are, in an optimal scenario, retrievable from the context. In [40], a patient’s autonomy and shared decision making are what makes a diabetic care good. In [41], even with more context provided by the corpus, it is not entirely clear as to why the driving habits are bad. However, knowing the reason is not necessarily in focus here; the point of the speaker is to not root the reason for driving badly in someone’s good idea, i.e., paintings on the pavement meant to slow down traffic.

For some NPs, however, none of the three possible interpretation patterns (ADJ-I, explicit VALUE, or implicit VALUE) seems eligible. In [42], the VALUE adjective is repeated for emphasis, similar to the insertion of expletives, as in *a bad fucking call* (token [16] above); in [43], the adjective *good* does not necessarily express a value but is rather part of a fixed phrase, similar to *good old days* or *good little boy*.

- [42] I was a **bad bad** person for wanting/having that.
(COCA: ‘bad ADJ NOUN’)
- [43] That's the most passionate thing she said to me in a **good long** while.
(COCA: ‘good ADJ NOUN’)

It is very difficult to pinpoint what such constructions exactly do, especially in the light of this study and its dimension. However, for now, it appears reasonable to treat the prenominal complex as one unit. Based on this, the reiteration of *bad* emphasizes the VALUE provided by the other *bad* resulting in a similar, but presumably not identical, pattern to [ADJECTIVE-INTENSIFIER + VALUE + HEAD]. In [25], *good* functions similarly to an ADJECTIVE-INTENSIFIER and emphasizes the duration signified by *long*. The only reason, in this preliminary analysis, why it is not a pure ADJ-I is because it is part of a fixed phrase. If it were to be analyzed as an ADJ-I, the analysis would need to hold true for other fixed phrases like *good old days* and *good little boy*.

5.2.2.4. The Issue of Focus Marker

As discussed in chapter 4.1, the function FOCUS MARKER proved to be difficult (if not impossible) to be identified in words other than *mere*. The legitimacy of the function, in the context of this study, has to be questioned since the correlating interpretation pattern may simply be a result of the lexical semantics of *mere*.

The issue is the following: if every function correlates to an individual interpretation pattern, that interpretation pattern must also be representative of other words of said function, disregarding, to a certain degree, the lexical semantics of the element itself. An EPITHET for example, no matter the lexical content of the element of that function, always ascribes its property to the instance referred to. In this study, this was tested and proven to be true for adjectives of color (*blue*) and of physical property (*rectangular*). If one were to argue that, by employing a FOCUS MARKER, the instance referred to is always compared to an implicit norm, this pattern must be representative for every word of that function.

However, if only one word convincingly represents that interpretation pattern, then it might be an individual issue of its intrinsic lexical semantics. The problem is not that the function is

redundant; the problem is rather that there is not enough supporting evidence (i.e., other words that can be a FOCUS MARKER) to legitimize the need for this function, in the context of this study. Furthermore, based on the definition of FOCUS MARKER¹³ provided above (cf., 2.3.7), *laughable* would also be eligible for a FOCUS MARKER since it construes speaker stance and compares the focus value to an implicit norm, as in, for example, token [44]. However, it is also intensifiable, cf., [45], and can be put in predicative position, cf., [46].

- [44] It's a **laughable** charge and I think it's largely being made to try to discredit me [...] (COCA).
- [45] Some of the lower class people became disobedient. They had the very **laughable** goal of equality. (COCA)
- [46] The fear, for his son, is that films like " The Interview " are contributing to another narrative: one in which North Korea is **laughable** and irrelevant. (COCA)

Based on the above and in the context of this study, not enough convincing evidence was encountered to support the notion of FOCUS MARKER as its own function. Again, this is not to discredit that specific function and tag it as redundant or wrong; *mere* cannot be allocated to other functions convincingly either. However, the definition of the function is either too much calibrated towards the specific word *mere* – that would however not convincingly reason its own function – or other words of the FOCUS MARKER function have yet to be encountered.

6. Interpretation Patterns of Encountered Patterns

This section is concerned with the depiction of the interpretation patterns of the encountered function combinations according to the conventions mentioned in chapter 3.3. The constructions themselves are grouped according to the first position in the query ‘ADJ ADJ NOUN’. If available, the function combination of a function with itself is analyzed first to introduce the interpretation pattern of the function in both positions of the query (e.g., [EPITHET + EPITHET + HEAD]). An exception to this order is the CLASSIFIER function; since it is relatively well researched and due to their comparatively fixed position, CLASSIFIERS did not cause any analytic discrepancies. Therefore, the depictions of their interpretation pattern in all function combinations encountered are addressed first. For every function combination encountered, a NP is provided in Table 14 below (tokens [47]-[79]); each token is repeated in the respective

¹³ Here repeated for convenience: “They are interpersonal modifiers by which the speaker situates the focus value in relation to alternative (implied) values, which contrast with the focus value or are situated on a shared scale.” (Davidse & Breban 2019, p. 358)

figures of the next sections. More linguistic context of the NPs discussed in this section is provided in the appendix.

Table 14. All Tokens for each Function Structure Encountered.

#	Token	Function Structure
47	wooden Egyptian sarcophagus	CLASS + CLASS + H
48	rectangular digital clock	EPI + CLASS + H
49	different Congolese orphanage	SD + CLASS + H
50	good Christian values	ADJ-I + CLASS + H
51	severe financial disadvantage	N-I + CLASS + H
52	possible financial backlash	MD + CLASS + H
53	mere political rhetoric	FM + CLASS + H
54	wooden egg-shaped disk	CLASS + EPI + H
55	Norwegian former supermodel	CLASS + MD + H
56	Rectangular black box	EPI + EPI + H
57	little different traumas	EPI + SD + H
58	unexplained severe allergies	EPI + N-I + H
59	large possible obstacles	EPI + MD + H
60	honest mere citizen	EPI + FM + H
61	multiple different cars	SD + SD + H
62	different scary movie	SD + EPI + H
63	different better plot	SD + ADJ-I + H
64	latest severe weather	SD + N-I + H
65	different alleged victim	SD + MD + H
66	other mere mortals	SD + FM + H
67	good solid book	ADJ-I + ADJ-I + H
68	good thorough investigation	ADJ-I + EPI + H
69	whole different level	ADJ-I + SD + H
70	good fake cough	ADJ-I + MD + H
71	crazy severe infestation	N-I + N-I + H
72	severe work-related asthma	N-I + EPI + H
73	severe multiple abnormalities	N-I + SD + H
74	possible future behavior	MD + MD + H
75	possible broken arm	MD + EPI + H
76	possible severe weather	MD + N-I + H

77	mere superficial symptoms	FM + EPI + H
78	mere single week	FM + SD + H
79	mere potential virtue	FM + MD + H

6.1. Classifier

As mentioned in chapter 3.3, the close relationship between CLASSIFIERS and the H of the NP is indicated by square brackets. The depiction of this notion becomes especially relevant when considering NPs of the function structure [EPITHET + CLASSIFIER + HEAD], e.g., token [48] in Figure 2 below. Multiple CLASSIFIERS indicate the subcategorization of the instance referred to recursively; based on this, it follows that, in token [47], the sarcophagus is Egyptian and said Egyptian sarcophagus is wooden. Tokens [49], [51], [52], and [53] are displayed in the same way; however, they represent different underlying structures (cf., Table 14). The non-inherent uses of *different*, *severe*, *possible*, and *mere* are depicted by a box scoping over the unit the elements modify, here [CLASSIFIER + H] combinations. *Good*, in [50], was analyzed as an ADJECTIVE-INTENSIFIER. As discussed in chapter 5.2.2.3, the function proved to be in need for further subcategorization in a form that represents an interpretation as suggested by Dixon (1982) – the values in [50] are therefore considered good due to their roots in the Christian belief system.

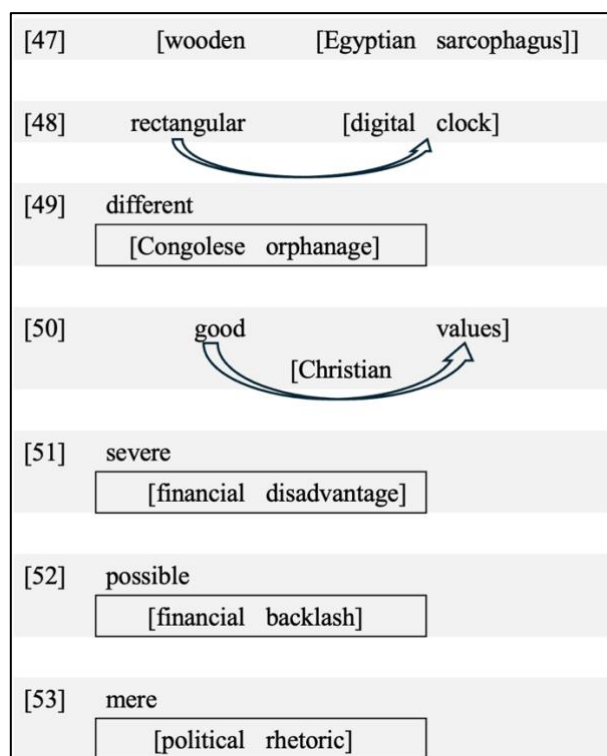


Figure 2. Interpretation Pattern for Tokens [47]-[53].

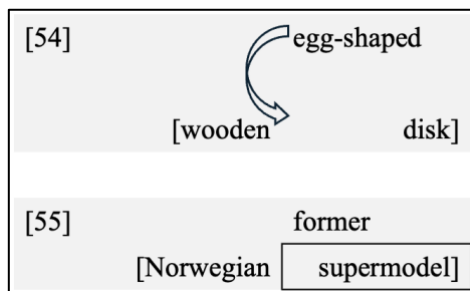


Figure 3. Interpretation Pattern for Tokens [54]-[55].

In Figure 3, [54] resembles [11] above (i.e., “wooden cylindrical enclosure”) where an EPITHET is preceded by a CLASSIFIER. The rather unusual order can be explained by the notion of the Current Discourse Space and given/new information (c.f. chapter 2.3.3.2 above). Regarding the denotation of the property, it can be argued that the unit [CLASSIFIER + HEAD], despite being separated by an EPITHET, still receives the property ascribed by the word *egg-shaped* as a whole. Since *wooden* is used to indicate the material of which the disc consists, it follows that, if the disk can be described as egg-shaped, the material itself is now, as a result, also egg-shaped. The analysis of [55] is similar to [9] (i.e., “Cuban-born former diplomat”), where the more permanent feature of being Norwegian does not fall within the scope of *former* which only modifies the less permanent feature, an occupation, of being a supermodel.

6.2. Epithet

Figure 4 below depicts the interpretation patterns for those combinations in which EPITHETS are in first position of the underlying structure [ADJ + ADJ + NOUN]. The ascription of their property is signified by an arrow pointing towards the unit receiving said property. A combination of two EPITHETS is analyzed as recursive modification unless the context implies differently. Multiple EPITHETS and the coordination of them, however, are in need for further investigation (cf., discussion in chapter 2.4.2).

The EPITHETS in [58]-[60] precede the non-inherent adjectives and are therefore unaffected by their modification. In [58], the severity relates to allergies not the impossibility of explaining them; in [59], objects could hypothetically turn into obstacles not hypothetically be big; in [60], citizens themselves are put in relation to the implied norm, not their honesty. The structure in token [57] was only encountered once, possibly signaling, however, the need for further subcategorization. Alleged EPITHETS that do not necessarily ascribe their property to the H of the NP but express a certain affection or diminutive effect. They are often parts of highly fixed phrases (cf., chapter 5.2.1.2).

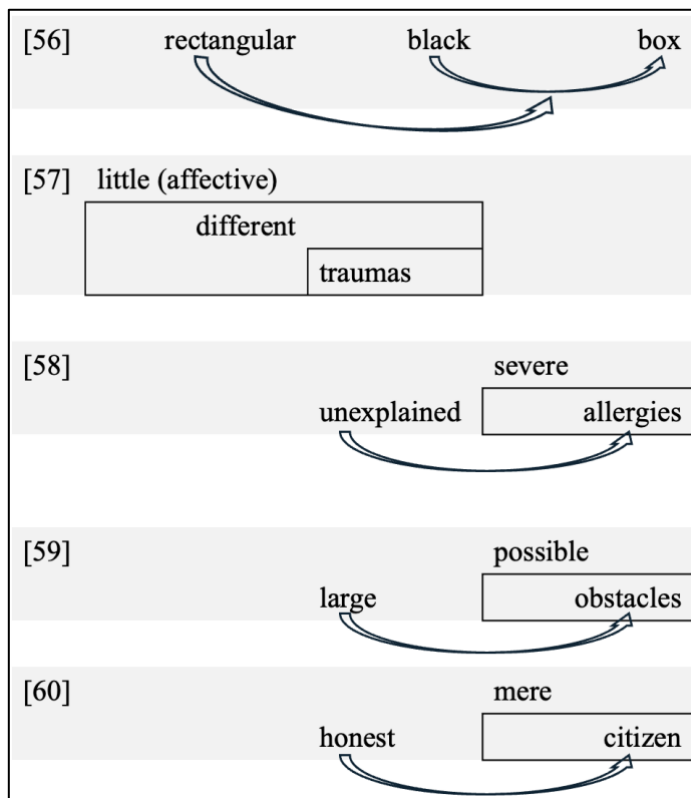


Figure 4. Interpretation Pattern for Tokens [56]-[60].

6.3. Secondary Determiner

Figure 5 depicts the interpretation patterns for combinations in which SECONDARY DETERMINERS are in first position. As non-inherent modifiers, their modification is signified by boxes; they are positioned on top of their respective box¹⁴. A non-inherent modifier can also be in the scope of the one it follows, as is the case in [61]. It can, however, also be argued, that the actual function of *different* is somewhere between a prototypical SD and a prototypical EPITHET (cf., chapter 5.2.2.1). In [62], *different* scopes over *scary movie* since the property in the EPITHET cannot be substituted (a sad movie is not another instance of a movie that is scary). In [63], *different* scopes over the VALUE adjective *better*; the plot qualifies as better due to an implicit property x. Tokens [64]-[66] are combinations of SDS with other non-inherent adjectives and resemble, therefore, [61].

¹⁴ This is applicable to true ADJECTIVE-INTENSIFIERS, NOUN-INTENSIFIERS, METADESIGNATIVES, and FOCUS MARKER as well.

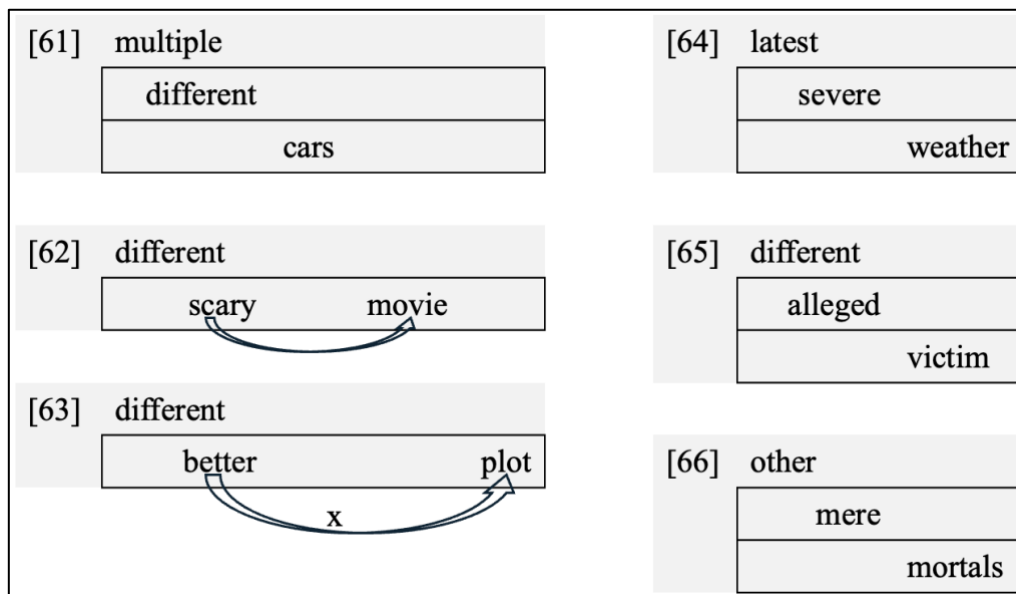


Figure 5. Interpretation Pattern for Tokens [61]-[66].

6.4. Adjective-Intensifier

The function ADJECTIVE-INTENSIFIER proved to be in need for further subcategorization (for more information, cf., chapter 5.2.2.3). Nevertheless, Figure 6 depicts interpretation patterns including those which involve an element that, in future studies, should not be considered true ADJ-INTENSIFIERS, namely [67] and [68]. The first element in each token, [67] and [68], can be considered VALUE adjectives with an implicit ([67]) or an explicit ([68]) external qualification. In [67], a double implicit external qualification could be possible, where the book is considered solid (as in, slang for ‘good’) due to an implicit property; said solid book is then considered good for likely the same implicit property. Alternatively, one could analyze *good solid* as one VALUE unit meaning ‘[emphasis] + good’. From the context of [67], it is obvious that an explicit external qualification reading is not intended; the book is not considered good due to its physical state of matter. [69] and [70] are tokens including true ADJECTIVE-INTENSIFIERS, namely *whole* and *good* respectively. A detailed discussion about these function combinations can be found in chapter 5.2.2.3.1. Dashed-lined boxes are used to signal that the ADJ-I does not scope over the H of the NP, since they only modify the scalar unit in the element they precede.

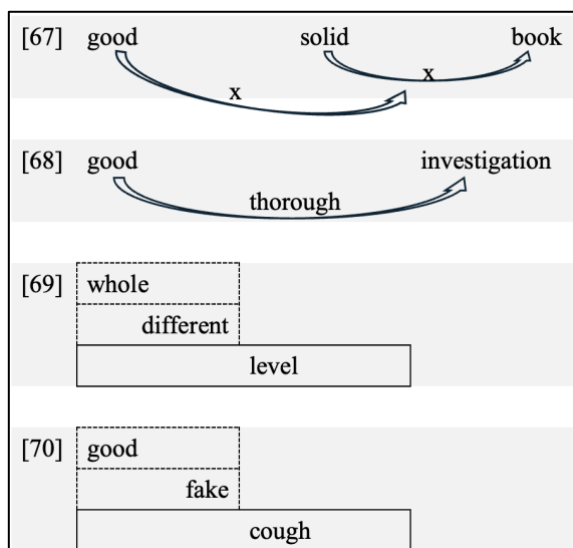


Figure 6. Interpretation Pattern for Tokens [67]-[70].

6.5. Noun-Intensifier

In Figure 7, the interpretation patterns for all function combinations with a NOUN-INTENSIFIER in first position are depicted. In [71], two consecutive N-IS are found. It can be argued that *severe* modifies the scalar property in *infestation* and that *crazy* modifies the scalar property in the unit *severe infestation*. However, it could also be argued that the two N-IS form a unit signifying a very high level of intensification. In [72] the scalar property in *work-related asthma* is modified; it can be rephrased as ‘a high level of work-related asthma’. [73] seems odd since *severe* arguably modifies the scalar property of *multiple abnormalities* while *multiple* only contributes to the identification of the instance. In the construction as encountered, it appears that *severe* signals both a comparatively high number (by intensifying *multiple*) and the extent of the abnormalities (by intensifying *abnormalities*).

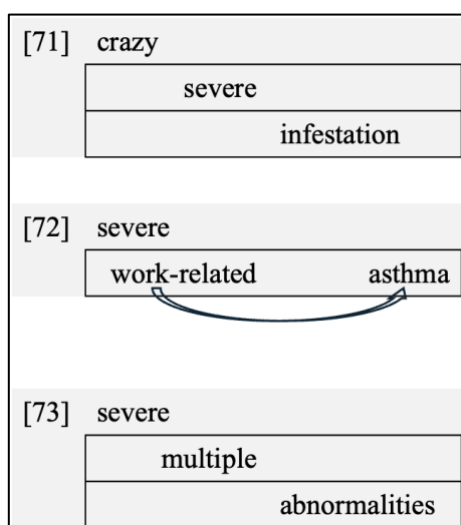


Figure 7. Interpretation Pattern for Tokens [71]-[73].

6.6. Metadesignative

Figure 8 depicts the interpretation patterns for combinations in which METADESIGNATIVES are in first position. [74] is an example for the combination of two MDs where the behavior is related to a timeframe in the future and said behavior in the future is considered hypothetical. Token [75] is interesting since the interpretation pattern here is likely more that of the adverb *possibly*. The alternative depiction would have the box of *possible* scope over the unit *broken arm*. However, the hypothetical does not relate to the existence of an arm but rather to the shattering of the bones within the arm. Similar to *total* in [20], *total different animal*, *possible* in [75] is part of the bigger adjective-adverb-distinction discussion. In [76], as argued in chapter 5.2.1.3, *possible* scopes over *severe weather* since the speculation is concerned with the severity of the weather rather than with the weather itself.

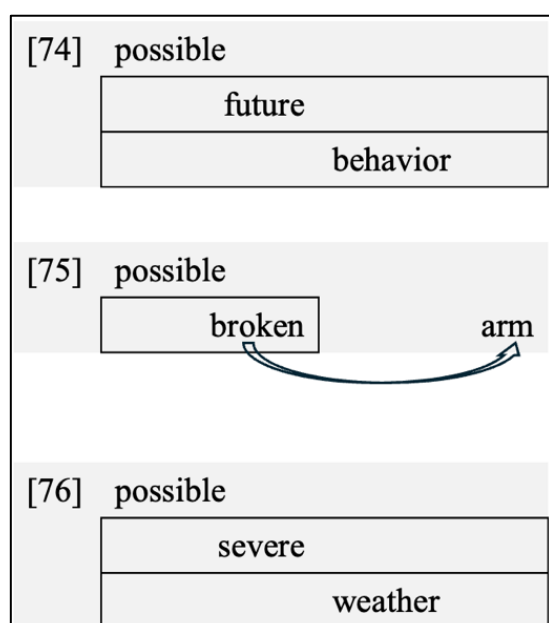


Figure 8. Interpretation Pattern for Tokens [74]-[76].

6.7. Focus Marker

Lastly, Figure 9 depicts the three combination patterns for which *mere* as a FOCUS MARKER is in first position. Each of the boxes below *mere* mark the focus value which is put in relation to the alternative value. *Mere* can be paraphrased as ‘just’ or ‘only’ resulting in *only superficial symptoms*, *only a single week*, and *only a potential virtue*.

[77] is interesting here; the property in *superficial* is being downplayed and compared to the other value which is, presumably, internal, mental individualism as a symptom of growing up in different places of the world (cf., appendix). In [78], the temporal window of one week is considered comparatively low given the fact that the forces against Harry Potter tried it again.

Finally, in [79], the hypotheticality of something being virtuous is considered not enough to justify military intervention, which is why *mere* only scopes over *potential* which in turn scopes over *virtue*.

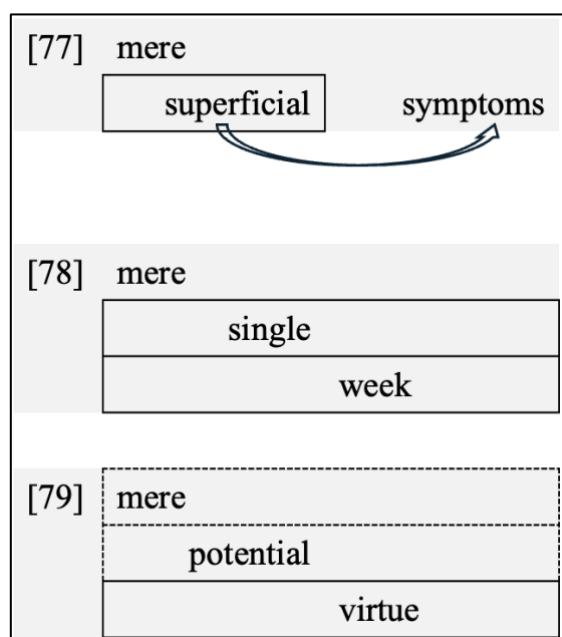


Figure 9. Interpretation Pattern for Tokens [77]-[79].

7. Conclusion

As has been shown by chapter 2, on the theoretical background of the thesis, the literature concerned with adjectives utilizes a vast variety of terms for the functions and uses of adjectives in prenominal position. While some functions were already established about 30 years ago (cf., Halliday 1994), scholars nowadays still dedicate their research to the discovery and exploration of additional or complementing function- and order-models of prenominal adjectives (e.g., Davidse 2022, Davidse & Breban 2019, Ghesquière 2014, etc.). Due to the long-lasting and continuing relevance of this issue, over time, this abundance of approaches, terminologies and models has resulted in an overwhelming amount of seemingly unconnected information. At the same time, however, little research has been dedicated to the depiction of the interpretation pattern of prenominal adjectives and the interaction of them. This thesis served both as an approximation of a synthesis of the previous literature and as an example of a systematic study of NPs with multiple adjectives in prenominal position. Overall, the thesis was concerned with the following research question: what are the functions of prenominal elements in a Noun Phrase of modern-day English and how do they interact with each other in regard to the possible interpretation patterns of the underlying structure [(Primary Determiner) + ADJ1 + ADJ2 + H]? The answer(s) and issues related to this question is/are discussed below.

First, the functions introduced in chapter 2 did not suffice to cover the entirety of the tokens encountered. As discussed in chapter 5.2.2.3, the function ADJECTIVE-INTENSIFIER (as defined in this project) is in need for further subcategorization; VALUE adjectives, as per Dixon (1982), can yield up to three different interpretation patterns, i.e., true adjective intensification, implicit, and explicit external qualification. The definition of adjectival function FOCUS MARKER may need adjusting since it was, in this study, only found in the adjective *mere*; the definition itself seems based on the intrinsic lexical meaning of the word *mere*. Expletives and affective uses of adjectives were preliminarily categorized as NOUN-INTENSIFIERS and EPITHETS respectively. However, these uses of adjectives are in need of their own function with their own correlated interpretation pattern.

Second, the interactions of the different functions were investigated. In the context of this study, the statistical distribution of the functions relative to each other are understood as the observable manifestation of adjectival order restrictions rather than as the source of AORs. As for the distribution of the functions relative to each other, the overall pattern described in previous literature was confirmed, i.e., SECONDARY DETERMINER as the left-most function, CLASSIFIER as the right-most, and non-inherent adjectives precede the word/unit they modify and are thus rather flexible in their relative position. As predicted, however, a combination among the functions FOCUS MARKER, METADESIGNATIVE, ADJECTIVE-INTENSIFIER, and NOUN-INTENSIFIER was relatively scarce (cf., Table 10 and Table 11 in chapter 5.1.1).

As for the functions' interaction and influence on each other, certain function patterns theoretically prohibit alternative interpretation patterns. In chapter 5.2.2.1, for example, I argue that the SECONDARY DETERMINER *different* carries epithetical meaning and is thus intensifiable by an ADJECTIVE-INTENSIFIER. If preceded by another SECONDARY DETERMINER, e.g., *various*, its function shifts more towards that of an EPITHET further away from a SECONDARY DETERMINER. This pattern is also observable in METADESIGNATIVES (cf., chapter 5.2.2.2). In other words, the function of some words can be positioned somewhere on a scale between two prototypical adjectival functions. If preceded or followed by certain other functions, the function of the prenominal adjective in question may shift.

Third, the possible interpretation patterns of the underlying function structures were depicted (cf., chapter 6). The tools and conventions used to depict the deciphering process of the NPs are based on Davidse & Breban (2019). While scholars have previously generalized away from actual language data to construct theoretical models of the modification zone of NPs, an interpretation pattern as defined in this study allows for a focus on individual function

combination patterns. The overall goal of these depictions was to visualize both the scopal relations of the prenominal elements as well as their linear positioning relative to each other. Each interpretation pattern is understood to be representative of an individual, correlating function combination pattern.

However, due to the limited scale of the study an exhaustive synthesis of the previous literature was not feasible; similarly, an exhaustive analysis and depiction of every possible function combination and a refined system for the depiction of interpretation patterns go beyond the scope of this thesis. As of now, this field of research is (still) in need for a general theoretical model that is both able to hypothesize and predict the structure of possible NPs with multiple prenominal elements as well as capable of analyzing and depicting individual, actual instances of such NPs.

As mentioned before, the conventions for the depiction of interpretation patterns are in need of further refining. For example, the individual non-inherent adjectival functions were grouped and collectively depicted by boxes; a convention is needed which is able to accurately depict the semantic relations between the prenominal element(s) and its/their head. Furthermore, the individual functions need subcategorization (cf., ADJECTIVE-INTENSIFIER as defined here), and additional complementing functions must be introduced to cover phenomena not explicitly addressed in this project (e.g., expletives, affective uses). Nevertheless, the thesis at hand has demonstrated a systematic way of approaching and studying NPs with multiple prenominal elements, the adjectival function of said elements, and the depiction of their interpretation patterns.

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Appendix

#	Token	Function Structure
47	That implies the collectors no longer want them if they can't give them away, which surely is not the case, " he said. # Mr. Dershowitz said that while he is disappointed, he is not distraught about his inability to sell the wooden Egyptian sarcophagus he purchased from Sotheby's. He had sent it to Christie's several months ago for auction, but Christie's demurred.	CLASS + CLASS + H
48	So many favela girls ended up prostitutes. I would walk the beachfront, from Leblon to Copacabana, smoking and sweating and marking time, literally - every few blocks a huge, rectangular digital clock displaying military time drifted past me with the palm trees in the night.	EPI + CLASS + H
49	she wrote him in August 2012, " Fix this immediately before the families come and see the horrible treatment of these children. " Hedberg also held Kombo responsible for the disappearance of this little girl from a different Congolese orphanage . Hedberg was unable to locate the girl, who later reportedly died of malnutrition.	SD + CLASS + H
50	And just because Obama won doesn't mean that God wasn't listening. There are too many people out there that have fallen away from God and good Christian values . Now we have to pick ourselves up and stand tall and strong.	ADJ-I + CLASS + H
51	Donald Trump raised about half as much as Hillary Clinton for his presidential campaign in the first 19 days of October, putting him at a severe financial disadvantage in the crucial final days of the White House contest, new campaign finance reports filed late Thursday show.	N-I + CLASS + H
52	Everybody loves to have their 15 minutes of fame, but maybe not this way. " # But now that position has changed. " So far, it's okay, " he says, when asked about any possible financial backlash from the band's musical about-face. " But that's all I can say.	MD + CLASS + H
53	When our federal officials urge border vigilance as a solution to drug crises, is it mere political rhetoric , or welfaremaximizing policy? As we detail in our next section, Just Say Yes, our major legislative and political efforts cumulatively cut off legal supply of a substance for which there is rabid demand. Could we reasonably have expected anything other than an explosion in illegal supply?	FM + CLASS + H
54	Follow the lead of Anthropologie stylist Halligan Norris, who fashioned this wearable collage by gluing a spirited mix of craft and floral supplies to a wooden egg-shaped disk (29 cents; michael's.com for stores).	CLASS + EPI + H

55	Oh, God, I would kill myself if it's Turid Kristansson. Wait. Her name's Turid? She's this Norwegian former supermodel who takes pictures of herself bathing with her kids and posts them on Instagram. Well, I don't think Bambi is Turid unless Turid is also a waitress.	CLASS + MD + H
56	Look, " she says, and points. # How did Anna miss it? A flat rock, right in the center of the plateau, and on top of it, a rectangular black box with an antenna sticking up. # The transmitter. # " This is where the broadcast comes from? " Gaby asks.	EPI + EPI + H
57	And there were nights that we didn't have any food, barely had any clothes -- You know, infested with, like, rats and roaches and different things like that. Se we went through a lot of different -- Our own little different traumas our own little different traumas as a kid, waiting for her. How -- how you deal, really actually deal with that life?	EPI + SD + H
58	I am constantly suffering from allergies, gut problems, and autoimmune issues including severe and painful IBS attacks which are pretty debilitating. I developed unexplained severe allergies to stuff I was not allergic before (such as hair bleach) I got my hair bleached countless times without any issues, but the last two times I almost died from anaphlectic shock.	EPI + N-I + H
59	Exhausted, he turned out the light and walked to the living room, knowing by heart how many steps he needed to take and where everything was placed. During the day he could find his way around his furniture and other large possible obstacles , but at night, outside, everything disappeared into a yawning black void.	EPI + MD + H
60	It's better at exploiting what our laws and controls permit, and in fact encourage, such as the importation of product from foreign sweatshops with slavish wage rates, unreasonably low U.S. tariff rates, corporate tax exemption on foreign profits, the low American minimum wage as the basis of their own workforce scale, the current lack of reasonable anti-trust provisions and enforcement by our government, and other advantages typically today wrought between our elected politicians and the usual greed interests -- advantages that are beyond the reasonable grasp of any honest mere citizen .	EPI + FM + H
61	About 1:20 p.m. Friday, someone fired shots from inside a home in the 800 block of Columbia Street and two vehicles were hit, police said. Several men were seen leaving the home in multiple different cars , and the incident is believed to be narcotics-related. No suspect information is available.	SD + SD + H
62	And I have seen a shit ton of movies. Yeah, and when Joe was actually living with my family, every weekend my parents,	SD + EPI + H

	they would buy us pizza and we would watch a different scary movie every weekend like clockwork.	
63	It's so frustrating this game as I love the puzzles, love that they tried to do something different with extras and it was far better than concept art and wallpaper! I just wish the HOS weren't repeated (which I hate) and started a new series with a different better plot . I do think it's an objective 3/5 stars.	SD + ADJ-I + H
64	All right. The tornadoes that swept through eastern Kansas last night were just the latest severe weather for that region. KING) : That's right. A series of storms also flooded rivers. Parts of the city of Tulsa, Okla., have gone underwater.	SD + N-I + H
65	She declined to say how she met the singer but acknowledged paying the bond. # On court paperwork, Love describes herself as a " friend " of Kelly's as she shelled out \$25,000 for each of the four cases -- all with a different alleged victim -- in which Kelly is accused of aggravated sexual abuse.	SD + MD + H
66	After all, " says an individual responding to this functional relativism, " I'm a person, too, so why should I subordinate my tastes to those of other mere mortals ? As for nature, heck, it has no will, and we subdue it all the time.	SD + FM + H
67	A very informative read about an oft-overlooked era of American history. (less) # Good solid book by Ambrose, which is not surprising. There are some really good references on some of the names of the towns and places along the railroad.	ADJ-I + ADJ-I + H
68	In any case when you lose an American soldier or just any American you need a good thorough investigation . We're going to have to trust the military to do the right job and to make sure the political forces aren't in the way.	ADJ-I + EPI + H
69	Then his face fell a little. " Well, usually. It's been a busy year. I need to renew my license. " # " A vampire accountant, " she repeated, shaking her head. " I've seen a lot of weird stuff in my life, but moving in with Cassie is a whole different level . " # " Vampires have a lot of money, and you know what they say.	ADJ-I + SD + H
70	Well, it's one of the best science fiction novels that's ever been written. It certainly turned me on when I was a 15-year-old, I read it for the first time. And I was so entranced by it that I faked illness to stay home from school in hope to finish it. IRA-FLATOW# You can say you have " The Andromeda Strain. " RICHARD-PRESTON# No, I couldn't really make my blood clot up around my body. (LAUGHTER) RICHARD-PRESTON# But I had a really good fake cough .	ADJ-I + MD + H
71	My boyfriend and I moved into an infested apartment complex. We couldn't get out of the lease, but we were able to switch apartments within the complex. What started out as a	N-I + N-I + H

	crazy severe infestation (three apartments later) has become a very slight infestation.	
72	The asthma attacks identified in the study stopped when patients avoided contact with this particular type of mushroom, prompting the authors to claim they have identified the " first European case of shiitake mushroom-induced occupational asthma, a disease more frequently occurring in Asia ". # Pravettoni V et al. " Shiitake mushroom Lentinus edodes: a poorly known allergen in Western countries responsible for severe work-related asthma ".	N-I + EPI + H
73	This is a huge responsibility and we must handle it well. # 14. The mother of a 10-year-old year with severe multiple abnormalities asks for a hysterectomy and oophorectomy for her daughter. The child has severe learning difficulties, is unable to communicate other than by grimacing, and requires 24-hour-a-day physical care.	N-I + SD + H
74	Finally, theory of mind, which involves attribution of one's own mental state and possible future behavior to another organism and has been considered to be exclusive to primates, also may be within the cognitive capabilities of some birds.	MD + MD + H
75	Hey, slow down. - I'm fine! Parish, hang in there! Parish! [Siren_approaching] - Hey, Gabby. - Matt. I'm okay, but we got a lot of guys who need help. He's got a possible broken arm , multiple lacerations. Guy in the back has a broken leg.	MD + EPI + H
76	The 985 hPa cyclone will quickly eject to lower latitudes in the South Atlantic, deepening even more to a 960 hPa low, favoring a very cold air incursion in the continent. The associated front will race trough Uruguay, Northern Argentina and Southern Brazil with possible severe weather (high winds, hails and even isolated tornadoes).	MD + N-I + H
77	Why deliberately get everything so completely BACKWARDS all the time?! # " Multiculturalism " pretends that, because all the mere superficial symptoms of growing up in different parts of the world (appearance, skin tone, sartorial variances and' preferences' for, and familiarity with, various types of ' ethnic' foods, all really only depending on environment) are of only negligible importance, that " All Cultures Must Be The Same! "	FM + EPI + H
78	A mere single week later the forces against Harry Potter tried again. Harry Potter had been minding his own business when he was forced into a dungeon. Dobby sensed the danger immediately.	FM + SD + H
79	Indeed, Mencius 6B7 implies quite the opposite. And so Bell's notion that mere potential virtue is a criterion for just military intervention seems to be entirely without basis.	FM + MD + H

Abstract (German)

Die Studie in der vorliegenden Masterarbeit beschäftigt sich mit der Interaktion und Interpretation mehrerer linguistischer Elemente in Pränominalposition einer Nominalphrase des modernen Englischs. Die Arbeit liegt im Bereich der kognitiv-funktionalen Linguistik, da angenommen wird, dass Sprache das Resultat und eine Manifestation des Denkens und der Konzeptionalisierung ist – dies ist ein wesentlicher Ansatz, der in den meisten Publikationen im Bereich der kognitiven Linguistik zu finden ist (z.B. Croft & Cruse 2004; Langacker 1987, 1991, und 2008; Radden & Dirven 2007). Basierend auf früheren Veröffentlichungen zu Modellen der Pränominalzone einer englischen Nominalphrase (Bache 1978; Breban 2010; Davidse & Breban 2019; Feist 2009; Ghesquière 2009, 2014; Quirk et al. 1995 [1985]), untersucht diese korpusbasierte (Corpus of Contemporary American English, Davies 2008-) Studie die schematischen Kombinationsmuster der verschiedenen Adjektivfunktionen in Form von Pränominalmodifikatoren – dies ist begrenzt auf Nominalphrasen der Struktur [(Primärer Determinierer) + Adj1 + Adj2 + Kopf der Nominalphrase]. Im Allgemeinen nimmt das vorliegende Projekt an, dass die Funktion des Adjektivs dessen Bedeutung auslöst, aber gleichzeitig das semantische Potential des Wortes selbst die möglichen Funktionen beschränkt. Mithilfe von Repräsentativwörtern für die jeweiligen Funktionen ist eine systematische Studie der Funktionskombinationen möglich. Die Studie ergab, dass, obwohl jegliche Kombinationen in der Theorie möglich sein sollten, nicht alle potenziellen Kombinationen gefunden wurden. Für manche Repräsentativwörter waren bestimmte Funktionskombinationen ungrammatisch, für andere wiederum sogar statistisch wahrscheinlich. Das Ergebnis für die meisten Repräsentativwörter hat gezeigt, dass die Grenzen zwischen den einzelnen Funktionen nicht klar gezogen werden können und in manchen Fällen sogar eine Abbildung der semantischen Veränderung des Wortes erkennbar ist. Des Weiteren werden die Interpretationsmuster der Funktionskombinationen, ein Forschungsgebiet, das in der bestehenden Literatur bisher wenig Aufmerksamkeit bekam, erforscht und abgebildet; jene Abbildungen gelten als eine Annäherung an die kognitiven Prozesse, die vonstattengehen, wenn eine Nominalphrase mit mehreren Pränominalementen gelesen/gehört und entziffert wird.

Abstract (English)

This study investigates the interaction and interpretation of multiple prenominal elements in the modern-day English noun phrase. It is situated in the realm of cognitive-functional linguistics since it assumes language to be the result and manifestation of thought and conceptualization – an approach taken in the majority of publications concerned with cognitive linguistics (e.g., Croft & Cruse 2004; Langacker 1987, 1991, and 2008; Radden & Dirven 2007). Based on previous publications concerned with models of the prenominal zone in the English NP (Bache 1978; Breban 2010; Davidse & Breban 2019; Feist 2009; Ghesquière 2009, 2014; Quirk et al. 1995 [1985]), this corpus-based (Corpus of Contemporary American English, Davies 2008-) study explores the schematic combination patterns of the different adjectival functions of pre-head modifiers, limited to NPs of the structure [(Primary Determiner) + Adj1 + Adj2 + Head]. This project generally assumes that the function of the adjective triggers its meaning while the meaning potential of the word limits its potential functions. By employing representative words for each adjectival function in question, the schematic function combination can be explored and put into context. The results showed that, while every function combination might in theory be possible (cf., abovementioned studies), not all of them were encountered in the corpus. For some words, specific combinations are impermissible while others are likely to cooccur. The METADESIGNATIVE *possible*, for example, expresses not the feasibility of something but rather its probability of occurring, if preceded by a superlative (e.g., *cheapest possible solution*) the EPITHETICAL meaning of the word is triggered (i.e., *cheapest solution feasible*) rather than its METADESIGNATIVE one (as in *possible side effects*). The findings for most of the investigated words showed that the lines between individual functions are rather blurry but might, depending on each representative word, hint to pathways of semantic change. *Different*, as a SECONDARY DETERMINER, for example, may be intensified as in *whole different issue* or *far different story*. Despite “making the identifiability status of the referent more precise” (Davidse & Breban 2019: 351) and its synonymy to *another*, it still carries remnants of its EPITHETICAL meaning, i.e., ‘not like the other instances of X’. Finally, the interpretation pattern of the function combinations, something that has received little attention in the literature concerned with prenominal elements, were investigated and visualized; these depictions serve as an approximation to the cognitive procedures of processing the NPs.